BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 050693-TL

In the Matter of:

PETITION TO REDUCE INTRASTATE SWITCHED ACCESS RATES IN REVENUE-NEUTRAL MANNER PURSUANT TO SECTION 364.164, FLORIDA STATUTES, BY ALLTEL FLORIDA, INC.
_____/

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VOLUME 2

Pages 81 through 220

PROCEEDINGS:	HEARING
BEFORE:	COMMISSIONER J. TERRY DEASON COMMISSIONER RUDOLPH "RUDY" BRADLEY COMMISSIONER LISA POLAK EDGAR
DATE:	Thursday, December 1, 2005
TIME:	Commenced at 9:30 a.m. Concluded at 1:40 p.m.
PLACE:	Betty Easley Conference Center Room 148. 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	LINDA BOLES, RPR, CRR JANE FAUROT, RPR Official FPSC Reporters 850/413-6734 - 850/413-6732
APPEARANCES:	(As heretofore noted.)

I N D E X

WITNESSES

EXHIBITS

NUMBER:		ID.	ADMTD.
58	Percentage of Households with a Telephone by State (Table-3)	165	206
59	Data from DCB-0 and BJW-8 compiled by staff	199	199

P R O C E E D I N G S

(Transcript follows in sequence from Volume 1.)

COMMISSIONER DEASON: Call the hearing back to order. Mr. Wahlen, you may call your next witness.

MR. WAHLEN: Okay. Alltel calls Mr. David Blessing.

DAVID C. BLESSING

was called as a witness on behalf of Alltel Florida, Inc., and, having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. WAHLEN:

Q Would you please state your name.

A My name is David Blessing.

Q By whom are you employed?

A I'm a principal with the consulting firm of Parrish, Blessing & Associates.

Q And are you the same David Blessing who prepared and filed direct testimony in this case consisting of 56 pages?

A Yes, I am.

Q And do you have any corrections to your direct testimony?

A Yes, I do.

Q Okay. Can you tell us what page and line?

A Okay. On Page 42 of my testimony, Line 21, there's a figure "0.7 percent."

Q Okay.

A And that figure should be changed to "2.2 percent."

Q Okay.

A The same change needs to be made on Page 43, Line 6.

Q Okay. Are there any other corrections?

A The change also flows through to two tables in my Exhibit DCB-0.

Q Why don't we handle the testimony first and then we'll deal with the exhibits. Are there anymore changes to your testimony?

A No.

Q Okay. If I asked you the questions contained in your direct testimony today, would the answers contained in there as you've corrected them be the same?

A Yes, they would.

MR. WAHLEN: Commissioner Deason, we'd request that the prepared direct testimony of David Blessing as corrected be admitted into the record as though read.

COMMISSIONER DEASON: Without objection, it shall be inserted into the record.

BY MR. WAHLEN:

Q Okay. Mr. Blessing, did you also prepare a number of exhibits labeled DCB-0 through DCB-40?

A Yes, I did.

Q And are those the exhibits that have been identified as Exhibit 7 through 48?

A Yes.

Q Okay. And you indicated you had a correction to one of your exhibits. Could you tell us which one it is and give us a little time to get that so we can make the change?

A Certainly. It's Exhibit DCB-0.

Q And that would be in the first volume of your exhibits?

A Yes.

Q And what page?

A It's labeled, the page label is Table 2. I don't think there's a page number to it.

Q Okay. And is it Line 1?

A Yes, it is.

Q And what should the number be?

A On the far column where the number reads "0.7 percent" --

Q Right.

A -- it should be replaced with "2.2 percent."

Q 2.2 percent. Are there any other corrections to this exhibit?

A On Table 5 of the same exhibit, on Line 1 of that table in the fourth column over under Alltel's Proposed Rate is the column heading, you'll see that same "0.7 percent" figure. That should be changed to "2.2 percent."

Q Okay. Are there any other corrections to your

exhibit?

A No. That, that's all the corrections.

Q Okay. And the rest of -- now with these corrections are your exhibits true and correct to the best of your knowledge?

A Yes, they are.

Alltel Florida, Inc.
Docket No.
Filed: September 29, 2005

BEFORE THE PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY

OF

DAVID C. BLESSING

I. INTRODUCTION AND WITNESS BACKGROUND

Q. Please state your full name, position, and business address.

A. My name is David C. Blessing. I am a principal partner of Parrish, Blessing, & Associates, Inc. (PBA). PBA provides consulting services to telecommunications companies regarding economic, policy, and financial issues. My business address is 10905 Fort Washington Road, No. 307, Fort Washington, MD 20744.

Q. Please describe your educational background, work experience and present responsibilities.

A. I am a principal in the consulting firm of Parrish, Blessing & Associates, Inc. I have over sixteen years of experience in the area of telecommunications regulation and economic analysis beginning with various managerial positions at Rochester Telephone Company in Rochester, New York. For the last twelve years I have been a principal in my current firm. During this period I have represented telephone companies in a number of regulatory proceedings before the Federal Communications Commission ("FCC") and state regulatory commissions in Alaska, Arkansas, Georgia, Kansas, Kentucky, Missouri, Nebraska, New York, Ohio, Pennsylvania, Texas and Puerto Rico. I have presented and defended analyses and testimony before regulatory commissions and government officials in the United States and abroad. My

professional background also includes an appointment to the faculty of Nazareth College of Rochester, where I taught courses in economics and finance. I hold a Baccalaureate of Arts from Kalamazoo College and a Master of Arts in Economics from Fordham University. In addition, I have successfully completed all required course work and comprehensive exams for my doctorate in economics. A detailed summary of my background is included as Exhibit No. ___ (DCB-39)

Q. What is the purpose of this docket?

A. In this docket, Alltel requests that the Florida Public Service Commission ("FPSC" or "Commission") grant its petition to decrease its intrastate switched access rates and offset the revenue loss by increasing its local rates in the same manner as was approved by the FPSC for BellSouth, Verizon, and Sprint in Dockets 030867-TL, 030868-TL, 030869-TL ("Rebalancing Dockets"), respectively. Specifically, Alltel seeks to reduce its intrastate switched access rates by approximately $6 million and increase basic local residential, single-line business and associated non-recurring rates in three increments over two years for a total of $6 million to offset the revenue loss. The purpose of this rate rebalancing is to remove implicit support that is provided by intrastate switched access rates by moving those rates down toward cost while at the same time, offsetting the revenue loss by increasing local rates to more cost-based levels. Alltel's plan follows the procedure set forth under Section 364.164, Florida Statutes ("Act"), and the similar plans that have been previously approved by this Commission for BellSouth, Verizon, and Sprint in the Rebalancing Dockets.[1]

[1] See Order No. PSC-03-1469-FOF, issued December 23, 2003 in the Rebalancing Dockets (hereinafter "Rebalancing Order"), a copy of which is attached hereto as Exhibit No. ___ (DCB-10).

Q. Please provide a brief summary of your testimony.

A. I will address the portions of the Act that allow incumbent local exchange carriers (ILECs) to rebalance their intrastate switched access rates with their local rates and will demonstrate that Alltel's proposed plan satisfies the requirements of the Act. Specifically, I will discuss the following:

The need to rebalance rates and the requirements of the Act (Section II).

Intrastate switched access rates currently provide support for basic local telecommunications service that would be reduced by lowering these rates (Section III).

The existence of local service support prevents the development of a more competitive local exchange market (Section IV).

The reduction of support will induce market entry into the local exchange market (Section V).

Enhanced market entry will result in the creation of a more competitive local exchange market that will benefit residential consumers (Section VI).

After the proposed rate increases, basic local service rates will remain affordable for consumers (Section VII).

Q. What are your major conclusions?

A. Based upon my review of the Act, Alltel's proposal to rebalance rates and Alltel's costs, I have concluded that Alltel's plan meets the criteria outlined in the Act. Specifically, upon implementation, the plan will:

1. Reduce current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers; and
2. Induce enhanced market entry.

Alltel's plan, if approved, will also decrease support for basic local service by reducing prices for intrastate switched access service which are priced above average cost[2] to support artificially low basic local service rates. To achieve revenue neutrality as required by the Act, Alltel will increase basic local residential prices toward cost-based levels. Moving residential rates toward average cost will create a more attractive market for potential competitive local exchange company ("CLEC") entrants that will create additional choices that will benefit residential consumers.

I also conclude that Alltel's rate rebalancing plan will provide economic benefits to the public in Alltel's service territory because moving rates toward average cost will provide consumers and competitors cost-based pricing signals which will lead to more economically rational utilization of telecommunications services. This, in turn will foster competition which will increase consumer benefits by providing consumer

[2] As it is used here, average cost is defined as covering all direct costs and a proportional share of joint and common costs.

choice in telecommunications services and providers, place downward cost pressure on telecommunications firms, drive telecommunication service prices downward reduce costs for businesses which will lead to lower prices for their products, and stimulate innovation and investment in telecommunications.

The cost evidence presented below demonstrates that Alltel's basic local residential service rates are priced significantly below the average cost of providing the service. Moving these rates toward cost will provide consumers and competitors the appropriate cost-based pricing signals that will lead to more economically rational utilization of telecommunications services. It may seem counter-intuitive that telephone consumers will be better off with an increase in local service rates; however, as the Commission acknowledged when it issued the Rebalancing Order addressing BellSouth, Verizon, and Sprint ("Large ILECs"), the benefits of additional choice in local telephone service will be available when local service is priced closer to average cost.

Alltel's plan will not jeopardize universal service in its Florida service territory. Like the rates proposed by the Large ILECs and approved by the Commission, Alltel's proposed rates for basic local residential telephone service will remain affordable and will not harm universal service. Additionally, although its proposed basic rates will remain at or below the state-wide average for such services, consistent with the Act, any price increase in basic local service will not apply to Lifeline consumers and consistent with the 2005 amendments to Section 364.10, Florida Statutes, the income eligibility for Lifeline consumers will be increased to 135 percent. This proposal

would extend Lifeline benefits to those additional customers that are the most likely to be sensitive to price increases.

Q. Have you prepared exhibits to your prepared direct testimony?

A. Yes. Accompanying my prepared direct testimony are four volumes of exhibits, numbered DCB-0 through DCB-40. These exhibits were prepared by me or under my direction and supervision and were compiled from Alltel's business records or from authoritative and/or reliable sources. My exhibits contain reports by governmental entities, authoritative papers written by persons considered to be experts in their fields and other materials upon which reasonably prudent persons rely in the conduct of their affairs. Exhibit DCB-4 contains confidential information that has been filed under separate cover with the Commission.

II. THE NEED TO REBALANCE RATES AND THE REQUIREMENTS OF THE ACT.

Q. Please describe why local basic residential service rates are supported by intrastate switched access and other services.

A. Historically, public policy to assure universally available and affordable basic telephone service dictated that rates for basic local residential telephone service should be priced at artificially low levels and supported by rates for other services whose prices were set above average cost, such as intrastate switched access services. The belief was that lower rates for basic local residential telephone service would be more affordable and would increase the penetration of local residential telephone service. While this may have been true during the introduction and growth phase of

telecommunications service nearly a century ago, today, low prices for basic residential telephone service may not be an effective or necessary means to further increase penetration. Since 1983 (the earliest date in the FCC's recent 2004 Monitoring Report that includes statistics on penetration), over 90% of U.S. households have subscribed to basic local residential telephone service. Today, over 95% of households have at least one phone line and many have several lines including a second wired phone line and one or more wireless phone lines.[3] Even among the highest income groups where affordability is presumably not an issue, wireline telephone penetration does not reach 100%. Furthermore, telephone service has become so widely accepted in the United States that the demand for basic local residential telephone service has become very inelastic, so that the price appears to have little impact on a consumer's decision to purchase voice telecommunications service. While it appears that the historic policy goal of increasing local telephone subscribership by holding down local basic residential rates below average cost by supporting them with above average cost rates for intrastate switched access may have been a factor in increasing local telephone subscribership to present levels, a policy of holding down local basic residential rates below average cost is no longer effective or necessary to further increase penetration.

[3] Penetration in Florida peaked in 2003 when 95.0% of all households in Florida subscribed to basic local residential telephone service on the wireline network. See Belinfante, Alexander; *Telephone Subscribership in the United States (Data Through March 2003)*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 2; Released November 2003, which is included as Exhibit ___ (DCB-1). Based on the most recent FCC data (May 2005) 91.6% of all households in Florida subscribe to basic local residential telephone service on the wireline network. See Belinfante, Alexander; *Telephone Subscribership in the United States (Data Through March 2005)*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 2; Released May 2005, which is included as Exhibit ___ (DCB-2). It should be noted that that the FCC's household penetration statistics do not count households that only use a wireless phone for all of their voice communications and have discontinued their wireline service.

Q. How has competition for local telephone service impacted the support flows to residential local service?

A. Rates for basic residential local telephone service provided by Alltel over the local wireline network continue to be priced based on past public policy principles. These principles, and the resulting low prices, may have been useful in a monopoly environment when telephony was a new service and policy-makers sought to increase subscribership. However, as discussed above, that policy is no longer an effective or necessary means to increase penetration for local residential telephone service beyond 95%. Additionally, in light of today's competitive market for toll and local telephone service via wireline, wireless, VoIP and cable TV, it has become increasingly difficult to sustain the contributions from the now competitive services that support Alltel's basic local residential telephone service. Competition for toll, business lines, and other services has put pressure on Alltel and other ILECs to reduce the prices for these services and, as a result, reduce the support that they provide to local residential service. As competition forces these rates down closer to average cost, support for basic local residential telecommunications service is eroding and can no longer be sustained. Thus, as the market for all telecommunications services becomes increasingly competitive and the current support flows erode, the rates for Alltel's basic local telephone service must be increased to more accurately reflect the actual underlying cost for the service. The Florida Legislature recognized the impact of competitive pressure and the resulting necessity to rebalance rates when it adopted the Act.

Q. Please describe the Florida statutory requirements with regard to the reduction of intrastate switched access rates to parity in a revenue-neutral manner.

A. The Act allows an ILEC to reduce its intrastate switched access rates to parity over a period of two to four years in a revenue-neutral manner. For Alltel, an ILEC with less than one million lines, "parity" is defined in the Act as: "the company's intrastate switched network access rate[4] is 8 cents per minute." See § 364.164(5), Fla. Stat. Under the Act, local exchange carriers that reduce their intrastate switched access rates to parity may increase the price of other services in a revenue-neutral manner.[5] Subsection (1) of the Act states that the Commission shall consider whether granting the petitions will:

a. Remove current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers;

b. Induce enhanced market entry;

c. Reduce intrastate switched network access rates to parity over a period of not less than 2 years or more than 4 years; and

d. Be revenue neutral as defined in subsection (7) within the revenue category defined in subsection (2).

Q. Is the Alltel plan similar to those the Commission approved for BellSouth, Sprint and Verizon?

[4] Section 364.164(6), Florida Statutes, defines the term intrastate switched network access rate for purposes of this section as "the composite of the originating and terminating network access rate for carrier common line, local channel/entrance facility, switched common transport, access tandem switching, interconnection charge, signaling, information surcharge, and local switching." A copy of Section 364.164, Florida Statutes, ("Act") is included in Exhibit No. ___ (DCB-3).

[5] Section 364.164(7), Florida Statutes, states that the term "revenue neutral" means: "the total revenue within the revenue category established pursuant to this section remains the same before and after the local exchange telecommunications company implements any rate adjustments under this section."

A. Yes. In Dockets 030867-TL, 030868-TL, 030869-TL ("Rebalancing Dockets"), this Commission approved petitions by BellSouth, Verizon, and Sprint to reduce their intrastate switched access rates to parity and offset the revenue reduction by increasing their rates for basic local residential service. As I will describe in more detail later, Alltel is seeking approval of a very similar plan to reduce its intrastate switched access rates to parity and offset the revenue reduction by increasing its basic local service rates.

III. INTRASTATE SWITCHED ACCESS RATES CURRENTLY PROVIDE SUPPORT FOR BASIC LOCAL TELECOMMUNICATIONS SERVICE THAT WOULD BE REDUCED BY LOWERING THESE RATES.

Q. Do Alltel's intrastate switched access rates provide support to basic local telecommunications service?

A. Yes. Alltel's basic local residential telephone services are priced below average cost and are supported by contributions from a number of other telecommunications services. Chief among these are intrastate switched access rates which were set significantly above average cost in order to provide support to basic local residential telephone services. Prior to the divestiture of AT&T in 1984, interstate and intrastate toll was priced above average cost and the excess revenues were used to support basic local telecommunications services. After the divestiture of AT&T, interstate and intrastate switched network access services were created and used as the means to continue the support flow from toll users to subscribers of basic local residential telecommunications service.

The fact that intrastate switched access supports basic local telecommunications was acknowledged in the Florida *Senate Staff Analysis and Economic Impact Statement on the Tele-Competition Act,* which stated:

> According to the commission, intrastate network access service rates were set well above the incremental cost of providing the service in order to keep rates for basic local telecommunications service as low as possible and to encourage subscribership.[6]

Q. What demonstrates that Alltel's residential local rates are currently receiving implicit support contributed by intrastate access rates?

A. Below, I present and discuss the results of three cost studies, each of which demonstrate that Alltel's residential rates are below average cost. This means that Alltel's basic residential local telephone service is being supported by other services because it is not covering its share of common and overhead costs. Conversely, the Hatfield Version 5.0a cost study cost study also demonstrates that Alltel's intrastate switched access rates are currently priced significantly above average cost, meaning that access is not only covering its own cost including overheads but is also providing support for residential local service.

In Table 1, shown in Exhibit No. ___ (DCB-O), the current and proposed rates for Alltel Florida's basic local residential telephone service and intrastate switched network access service are compared to two cost studies from Florida Commission

[6] See *Senate Staff Analysis and Economic Impact Statement of CS/SB 654 - the Tele-Competition Innovation and Infrastructure Enhancement Act.*, dated April 8, 2003, p. 9, a copy of which is included as Exhibit No. __ (DCB-34).

Docket No. 980696-TP - a forward-looking TELRIC-based cost study calculated using the Benchmark Cost Proxy Model Version 3.1 ("BCPM 3.1") with the model default settings and a fully distributed embedded cost study also presented in that docket by the small ILECs with adjustments made by the FPSC Staff. The third study reflected in Table 1 is also a forward-looking TELRIC-based cost study and was conducted by Alltel for this proceeding. It was developed from the Hatfield Cost Model Version 5.0a ("HAI 5.0a") using default inputs modified with company specific inputs for Alltel.[7]

As can be seen in Table 1 of Exhibit ___ (DCB-O), the current price of $10.49 for Alltel Florida's basic local residential telephone service is far below the forward-looking cost study estimates produced by the BCPM 3.1 and the HAI 5.0a proxy cost models and is below the cost study estimate produced by the Commission-approved fully distributed embedded cost study conducted in Docket No. 980696-TP. Additionally, the table illustrates that the proposed price for intrastate switched access is still higher than the HAI 5.0a forward-looking cost of providing that service despite the fact that Alltel proposes to price its switched access below the statutorily defined "parity" rate of $0.08 per minute.

Q. What type of cost study does Chapter 364, Florida Statutes, require for determining the cost of providing basic local telecommunications service for small local exchange telecommunications companies?

[7] The HAI 5.0a model is used to provide an estimate of forward-looking TELRIC rates for Alltel because the Company has not yet estimated a forward-looking model for the Florida study area. Later versions of HAI and the FCC's BCPM model that are publicly available do not contain data for Alltel. The HAI value found in Table 1 was developed using the total per line cost of service multiplied by the portion of total cost allocated to local service (non-private line) in the Company's 2004 cost study. Exhibit No. ___ (DCB-4) reflects related HAI 5.0a files and Exhibit No. ___ (DCB-5) reflects the Alltel 2004 embedded cost study.

A. Section 364.025(c), Florida Statutes, which applies to ILECs with fewer than 100,000 access lines, gives the Commission two options for determining the forward-looking cost of providing basic local telecommunications service for small local exchange telecommunications companies. The Commission may elect to use a proxy cost model, but one that is different than the model the Commission would develop for the larger ILECs in a public docket or the Commission may use a fully distributed embedded cost model that is consistent with 47 C.F.R. parts 32, 36, and 64.[8]

The Commission has used an embedded cost study before. Docket No. 980696-TP was initiated by this Commission to satisfy the legislative requirement to determine and report to the Legislature the total forward-looking cost of providing basic local telecommunications service. The purpose of the docket was to advise the Legislature of the cost of providing local service for the purpose of establishing a permanent universal service mechanism. In Docket 980696-TP, the small ILECs sponsored an embedded cost study that was based on Part 36 jurisdictional separations procedures. The Commission determined that the fully distributed embedded cost study sponsored by the small ILECs best represented the cost of providing basic local telecommunications for the small ILECs, such as Alltel. Thus, rather than use the results generated by the BCPM 3.1 cost proxy model as the cost basis, the Commission elected to use the results from the small ILECs' embedded cost study as the appropriate cost basis for the purposes of establishing a universal service fund. In its order, the Commission ruled that under Section 364.025(4)(c), Florida Statutes, the embedded cost methodology, with adjustments as specified in the body of the Order, was "adopted for Alltel Florida ... to determine those carriers' respective costs of

[8] *See* § 364.025(c), Fla. Stat., a copy of which is included as Exhibit No. ___ (DCB-6).

providing basic local telecommunications service." Relevant excerpts from the Final Order in Docket No. 980696-TP are included as Exhibit No. ___ (DCB-7).

Q. What adjustments did the Commission make to the embedded cost model proposed by the small ILECs?

A. The Commission used the embedded cost methodology proposed by the small ILECs and made a few adjustments to the ILECs' cost study. The Commission adjusted AFUDC (Allowance for Funds Used During Construction), Account 7370 lobbying and contribution expenses, gross receipts tax, working capital account, property taxes, interest expense, corporate operations expense per line, and cost of equity for various ILECs. After the Commission's adjustments, the embedded cost model produced a final cost number for Alltel's basic local service of $41.32, which was only slightly lower than the $41.97 cost estimate developed by Alltel. By comparison, the results of the embedded cost study were 38% lower than the cost estimate of $66.37 generated by the BCPM 3.1 cost proxy model in that docket, but only 12% lower than the cost estimate of $48.44 generated by the HAI Version 5.0a cost proxy model that I present in Exhibit No. ___ (DCB-4) and discuss in this testimony.

Q. What adjustments did Alltel make to the HAI 5.0a cost proxy model?

A. Alltel changed a few of the default inputs in the HAI 5.0a cost proxy model in order to better reflect Alltel's actual investment and expenses in Florida. Accordingly, Alltel modified the following inputs: cost of capital; depreciation lives and salvage value for some of the equipment; and the investment dollars for NID (Network Interface Device) and DLC (Digital Loop Carrier); cable investment (distribution, feeder and drop); and the factors for corporate overhead and taxes. A list of the input factors that

Alltel changed in the HAI 5.0a cost proxy model to better reflect the costs of Alltel providing service in its Florida service area is provided in Exhibit No. ___ (DCB-4).

With respect to the cost of capital, Alltel changed the HAI model inputs to reflect a lower debt ratio and a higher equity ratio, which better represents Alltel's debt-equity ratio. Additionally, Alltel's current cost of debt is lower than the HAI 5.0a model's default rate. Alltel also changed the cost of equity slightly to reflect Alltel's cost of equity. These changes produce an overall rate of return of 10.79% for Alltel as shown in Exhibit No. ___ (DCB-4). The depreciation lives and salvage values for twelve of the twenty-two equipment investment categories were modified to reflect the depreciation lives and salvages values that were approved by this Commission in 1996 during Alltel's last depreciation study.[9]

Alltel also increased the default setting for the per line monthly LNP revenue collected to 37 cents per month to reflect the amount that Alltel actually collects. The investment dollars for NIDs were changed from the HAI 5.0a model default inputs to reflect the current material prices and installation labor amounts used by Alltel Florida for capital cost estimates. The model input for DLC Investment dollars was changed to reflect the fact that Alltel uses Calix equipment which comes in different size increments than the 120/240 low-density and 672/1344/2016 high-density sizes used in the HAI model. This change led to slight increase in DLC investment when Calix equipment requirements were developed using the HAI cluster data and current material prices.

[9] *See* Order No. PSC-96-0680-FOF-TL; In Re: Request for Approval of 1995 Depreciation Study by Alltel Florida, Inc.; Dkt. No. 950887-TL (May 23, 1996), a copy of which is included as Exhibit No. ___ (DCB-8).

Alltel changed the investment dollars per foot and labor installation costs for distribution, feeder, and drop cable as well as for poles using current material costs and average installation hours found in Alltel's work order management system. The fill rates in the HAI model were not changed because the HAI model reflects what Alltel believes would be a reasonable forward-looking fill rate. Finally, Alltel reduced the corporate overhead cost factor and reduced the "Other Taxes" factor as shown in Exhibit No. ___ (DCB-4). The net change resulting from Alltel's input changes was to increase the HAI 5.0a model output for the default cost of local service in Alltel's service territory from $41.76 to $48.44. Both cost estimates are significantly greater than Alltel's current average rate for residential basic local service of $10.49.

Q. What do you conclude about Alltel's cost of providing basic local service and whether its local service is being supported by contributions from Alltel's intrastate switched access revenues?

A. The fully distributed embedded cost study as modified by the Commission Staff and as approved by the Commission in Docket 980696-TP and the HAI 5.0a forward-looking cost study developed by Alltel for this proceeding both show conclusively that the average cost of Alltel's residential basic local telecommunications services is much greater than its current price of $10.49. This means that basic residential local telephone service is being supported by other services because it is not covering its share of common and overhead costs. Alltel's basic local service is receiving implicit support because the revenues from Alltel's basic local service are insufficient to recover its own long run forward-looking and/or direct costs. The support for basic residential local service comes from all those services that are priced above average cost; most notably intrastate switched access. Alltel's intrastate switched access rate is

priced significantly above average cost and is not only covering its own cost including overheads, but is also providing support for residential local service.

Q. Is it clear that residential local service is being supported by intrastate switched access?

A. Yes. However, even though the price of one service may be supported by the price of another, it does not mean that a subsidy exists. There is a fundamental distinction between a subsidy flow and a support flow. Although these terms are sometimes used interchangeably, they are not the same. Subsidy has a very precise definition in economic literature that a service is said to be internally subsidized if the price of the service is below its long run marginal cost while the price of another service exceeds its stand alone cost.[10] On the other hand, implicit support can occur even if the favored service is priced at or just above long run marginal cost but below the average cost of providing the service and other services are priced above average cost. In each case, one set of services is priced at artificially high levels (above average cost) to support other service(s) priced at below average cost. Thus, internal subsidization is an extreme example of implicit support. In either case, as competition forces the price

[10] See *Handbook of Telecommunications Economics,* Amsterdam: Elsevier Science, 2001 and *Chapter 10,* UNIVERSAL RESIDENTIAL TELEPHONE SERVICE, Michael H. Riordan, *Columbia University,* August 29, 2001, a copy of which is included as Exhibit No. ___ (DCB-9). A possible tension between the popular meaning and Faulhaber's definition of a cross-subsidy is revealed in the following quotation from Kaserman and Mayo (1994 pp. 135-6):

> 'To some extent, the argument over whether a subsidy exists is semantic. The answer hinges upon one's definition of a subsidy and how one would measure the costs of the services involved. Regardless of the position one adopts, however, there is no economic justification for a system that places the burden of fixed network costs on usage-sensitive prices. Such a system is inefficient whether or not a subsidy results. Consequently, one need not become mired in the subsidy debate to make definite statements about efficient pricing policies. We will continue to use the cross-subsidization terminology throughout the remainder of this article because it is convenient to characterize the overpricing of one service along with the under-pricing of another as a cross-subsidy, whether or not these prices fall outside the range that the Faulhaber criteria define. What is more, we are convinced that such cross-subsidization exists, is substantial, and is an accurate description of the existing price structure in this industry.'" See Exhibit No. ___ (DCB-9).

of contributing services down to average cost, it becomes more difficult to fund the support flows. I am not claiming that residential service is internally subsidized nor does the statute require such a demonstration.[11] It is clear, however that residential local service prices are supported by intrastate access rates and that as competition continues to develop, these support flows are not sustainable.

The Commission concluded in the Rebalancing Dockets that intrastate switched access rates do, in fact, provide support to basic local residential telecommunications services. Specifically, in paragraph 1 of section V, Summary of Decision, in the Rebalancing Order, the Commission stated:

> Intrastate access rates currently provide support for basic local telecommunications services that would be reduced by bringing such rates to parity with interstate access rates.[12]

The Commission should make the same finding in this proceeding, that intrastate access rates currently provide support for basic local telecommunications services that would be reduced by bringing such rates to parity as defined by the Act. The cost studies clearly show that basic local residential telecommunication service is priced far below its embedded and forward-looking average cost while intrastate switched access is priced above its embedded and forward-looking average cost conclusively showing

[11] Section § 364.164(1) (a), Florida Statutes, speaks of removing support not eliminating internal subsidies.
[12] See Rebalancing Order at 14, Exhibit No. ___ (DCB-10).

that basic local residential telecommunications service is being supported by intrastate switched access services.

Q. How should the loop be allocated?

A. The Commission determined in the Rebalancing Dockets, that the cost of the local loop is a cost of basic local service. A contrary finding would be inconsistent with past Commission decisions, especially the Commission's 1998 Report on Fair and Reasonable Rates to the Legislature wherein it specifically stated that the costs associated with the local loop should not be allocated. This Commission has a consistent policy on this issue.[13]

Q. If Alltel's intrastate switched access rates are moved to parity as defined by the Statute and Alltel's rates for residential local service are increased, will all support for Alltel's residential local service rates have been eliminated?

A. No. In addition to some remaining support continuing to flow from access, Alltel's residential local service receives additional support from other services. To the extent that any service that Alltel provides is priced above average cost, it may be considered to be providing support to Alltel's residential local service and any other service that may be priced below its average cost. For example, intraLATA toll and custom calling features generally are considered to provide support to local residential service. However, for the purposes of this proceeding, the Legislature has specified that intrastate switched access rates are the target and are to be reduced and rebalanced against basic local rates. However, because residential rates will still be below their average costs, this proceeding will not lead to a complete rebalancing of rates.

[13] See Rebalancing Order at 18.

IV. THE EXISTENCE OF LOCAL SERVICE SUPPORT PREVENTS THE DEVELOPMENT OF A MORE COMPETITIVE LOCAL EXCHANGE MARKET.

Q. How does support from intrastate switched access prevent the development of a more competitive local exchange market?

A. Artificially low local residential service prices discourage potential competitors from entering the residential market. Potential competitors look at the prevailing market price, their own costs of providing the service and the resulting profit margins as key factors in making a determination as to whether they will enter a particular market. If the market price of residential local service is less than the potential competitor's anticipated costs, the potential competitor will not view residential service as a potentially profitable venture and therefore will not enter that market.

Even if a potential competitor has a lower underlying cost of provisioning local residential service than the ILEC, the potential competitor will not enter the market if the ILEC's artificially low price for local residential service is below the potential entrant's cost. As discussed previously, this is exactly the situation in the Alltel markets.[14]

Q. What happens if the market price of residential local service is greater than the potential competitor's anticipated costs?

[14] Uneconomic competitive advantage refers to differences not resulting from underlying cost or quality differences.

A. If the market price of residential local service is equal to or greater than the potential competitor's anticipated costs (including a reasonable profit), the potential competitor is incented to enter that market. Of course, the greater the profit margin, the greater the number of potential competitors that will enter the market. For example, if the market price of residential local service in Alltel's territory were $100 and the new entrants' cost to provide service was only $30, Alltel's territory would be flooded with new entrants seeking to participate in a very lucrative market to capture those profits. While I am not advocating a market price of $100, I simply use this example to illustrate the principle that the higher the price, the greater the number of competitors that will seek to enter the market. Ultimately, the increased competition will force prices down to cost and drive out the inefficient providers. To the extent that the price for Alltel's local residential service is moved closer to average cost, the market will become that much more attractive to potential competitors.

Q. Does that fact that the price of Alltel's residential local service is so far below its cost have any impact on whether a competitor will enter Alltel's local market?

A. Absolutely not. Although cost and market share measures are meaningful to competitors, competitors will look principally at Alltel's price of local 1R service, not just Alltel's cost. Competitors are primarily concerned about their own cost of providing service and whether they can charge a price that is high enough to cover their own costs. If the market price (i.e., Alltel's price) of residential local service is greater than the potential competitor's anticipated costs (including a reasonable profit), the potential competitor is incented to enter that market. Thus, a competitor doesn't care if Alltel's costs are $1 or $100 greater than Alltel's price. A competitor only cares whether its own costs are less than Alltel's price.

Q. Will moving the price of Alltel's residential local service closer to average-cost attract other providers of local telecommunications besides CLECs?

A. Yes. As the price of Alltel's local residential service moves closer to average cost, all types of providers of local telecommunications services will factor the new market price into their market entry analyses and re-evaluate whether entry will be profitable. Today, there are a number of different technologies and carriers that compete in the local telecommunications market in Florida and/or the United States, including wireline CLECs, wireless carriers, cable telephony providers, voice over internet protocol ("VoIP") providers, electric utilities, and even satellite carriers. One important reason for moving the price of Alltel's residential local service toward average cost is that technological change is proceeding rapidly and that competitive markets can do a much better job of discovering which technologies can best provide service to customers in any given region. However, in order for the lowest-cost mix of technologies to enter or remain in the market, prices and the signals they send must not be distorted and must reflect the underlying cost of providing service. Alltel's plan to move the price of its residential local service closer to average cost will encourage new entrants, regardless of their chosen technology, to enter or expand in the marketplace. At current rate levels even competitors using lower-cost (or more attractive) technologies may not be able to compete against a supported ILEC price that does not reflect its own average costs.

This Commission's decision in the Rebalancing Dockets also supports my conclusion. The Commission found that the existence of local service support from intrastate switched access prevents the creation of a more attractive competitive local exchange

market. Specifically, in paragraph 2 of the Summary of Decision portion of the Rebalancing Order, the Commission concluded:

> The existence of such support (i.e., subsidies from intrastate switched access) prevents the creation of a more attractive competitive local exchange market by keeping local rates at artificially low levels, thereby raising an artificial barrier to entry into the market by efficient competitors.[15]

The same finding is appropriate in this proceeding for Alltel that the existence of support from intrastate switched network access prevents the creation of a more attractive competitive local exchange market by keeping rates for basic local residential telephone service at artificially low levels, thereby raising an artificial barrier to entry into the market by efficient competitors.

V. THE REDUCTION OF SUPPORT WILL INDUCE MARKET ENTRY INTO THE LOCAL EXCHANGE MARKET.

Q. Why will the reduction of support enhance market entry into the local exchange market?

A. As discussed in the preceding section, market entry will be enhanced if implicit support is removed from Alltel's local residential service rates and the service is priced at or above long run incremental cost plus a reasonable share of common and overhead costs. Reducing implicit support and raising residential service rates will

[15] See Rebalancing Order at 14.

better enable potential competitors with cost structures lower than and or equal to that of Alltel to compete effectively. Conversely, continuing to support 1R basic local services will continue to hamper the development of competition for those services. In effect, the elimination of implicit support will result in a price that will give more correct economic signals about the potential profitability of providing local residential telecommunications service and lead to a more efficient allocation of resources.

Q. What empirical evidence supports the idea that rate rebalancing will enhance entry into the residential local telecommunications market?

A. The National Economic Research Associates published a research paper describing the results of an empirical investigation of whether low basic local residential rates were stifling the development of residential competition. The authors, McDermott and Ros, compared how local competition varied across different states depending on how "unbalanced" the prices were for local telephone service; that is, the extent to which rates for local residential telephone service were priced below average cost and rates for local business telephone service were priced above average cost. The authors even measured the degree to which local residential exchange prices were "distorted" in each state. The authors found that residential rates priced below average cost inhibited the development of competition for local residential telephone service.

More specifically, Ros and McDermott set out to test the hypothesis of whether residential rates set below average cost and business rates set above average cost were having an impact on the development of local exchange competition and inhibiting the development of residential competition. Ros and McDermott noted that competitors are targeting business services because they tend to be priced above their average

costs. Conversely, the authors noted that CLECs are largely ignoring residential customers because residential services tend to be priced below average cost. CLECs may be ignoring residential customers not because underlying demand and supply conditions justify it but rather because of regulatory distortions. If true, the policy implication is that states should move more aggressively than they have to date in rebalancing prices – i.e., setting residential and business prices in accordance with economic efficiency.[16]

Ross and McDermott measured residential competition separate from business competition and further divided competition into both facilities-based and resale. Using both ordinary least squares (OLS) and generalized least squares (GLS), the authors found that unbalanced local exchange prices had a negative impact on the development of residential local exchange competition. Specifically, they found that as prices were more unbalanced, the percent of ILEC residential lines served by switching centers where new entrants have collocation arrangements decreased. Based on the model's results, the authors concluded that a 10% increase in residential rates (which were below average cost) could lead to a 9% to 13% increase in local competition. Their paper notes:

> we found a significant and positive association between states that have more "balanced" tariffs and residential competition. For two measures of residential competition used in our data, we found that

[16]Agustin J. Ros and Karl McDermott, "Are Residential Local Exchange Prices Too Low? Drivers to Competition in the Local Exchange Market and the Impact of Inefficient Prices," in Michael Crew, *Expanding Competition in Regulated Industries,* Kluwer Academic Publishers, 2000. p. 54, a copy of which is included as Exhibit No. ___ (DCB-11).

"rebalancing" tariffs by 10% leads to approximately a 9% and 13% increase, respectively, in residential competition.[17]

Q. What other empirical evidence can you provide that supports this concept?

A. Two other studies, referenced in the Rebalancing Dockets, also support the conclusion that rate rebalancing will enhance entry into the local residential telecommunications market.[18] Specifically, an empirical study conducted by James Eisner and Dale E. Lehman concluded: "there appears to be less competitive entry (principally facilities-based) where residential rates are lower. These findings are generally statistically significant at the 90% level."[19] Also an empirical study conducted by Ros and Banejee that examined rate rebalancing in Latin America concluded that in some Latin American countries where the supply of residential local service had been constrained by below cost pricing, rate rebalancing led to increases in the supply of main telephone lines by providing better incentives to market participants.[20] Specifically, the authors concluded that:

> instead of relying on artificially low prices to trigger greater use of the telecommunications network—on the theory that low prices

[17] Id. at 67

[18] These studies were discussed in the Amended Direct Testimony of Dr. Kenneth Gordon On behalf of Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-Florida Inc, a copy of which was entered into the record in the Rebalancing Dockets and which is included as Exhibit No. ___ (DCB-12).

[19] James Eisner and Dale E. Lehman, *Regulatory Behavior and Competitive Entry,* presented at the 14th Annual Western Conference Center for Research in Regulated Industries, June 28, 2001; p. B24 [Hereinafter "Eisner and Lehman], a copy of which is included as Exhibit No. ___ (DCB-13).

[20] Agustin J. Ros and Aniruddha Banejee, "Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America," *Telecommunications Policy,* 24 (2000) 233-252, a copy of which is included as Exhibit No. ___ (DCB-14).

> enable consumers to harness network externalities and increase penetration rates—it is more pragmatic to allow telecommunications operators, especially in countries that have privatized, to recover their costs by charging compensatory prices. A country may be able to generate "high" levels of demand by a deliberate policy of maintaining prices below cost or at low levels, but—as long as it does not provide subsidy support for such prices—it is only by increasing actual supply that the country can actually expect to see service delivered to consumers.[21]

Q. Please provide more detail about the Eisner and Lehman study.

A. Using data compiled by the FCC, Eisner and Lehman, developed and ran more than 40 regression models to determine the ways in which regulatory behavior may have affected the rate and type of competitive entry into the local telecommunications market. In particular, the authors were interested in the efficacy that the pricing of unbundled network elements (UNEs) and the setting of resale discounts had on CLEC entry. The authors reviewed several variables including rates for basic local residential telephone service and confirmed earlier research conducted by Ros and McDermott, which found that higher retail residential rates tend to promote facilities-based entry.[22] Eisner and Lehman also found that "In most of the models, CLEC lines increase with residential rates and the effect is significant at the 90 percent significance level."[23] Thus, there is empirical evidence that higher retail rates for

[21] Id. at 27, Exhibit No. ___ (DCB-14).
[22] See Eisner and Lehman at B10 [Exhibit No. ___ (DCB-13)].
[23] Id. at B20.

basic local residential telephone service provide stronger incentives for CLECs to enter those local markets and tend to promote facilities-based entry.

Q. Who are the competitors that could enter Alltel's markets if rates are rebalanced?

A. Since DSL is available in all of Alltel's exchanges except Hastings, it is physically possible for Vonage, AT&T, BellSouth and others to offer VoIP telephony service throughout Alltel's Florida territory. Therefore, if the price of Alltel's 1R service increases to $16.49, then Vonage's $14.99 plan becomes a viable competitive choice in Alltel's Florida territory that customers might choose over Alltel for a second phone line.[24] It is likely that other VoIP-based providers such as AT&T and BellSouth would also find it profitable to enter Alltel's territory if the average price of Alltel's 1R service was increased to $16.49.

Skype is another potential VoIP-like competitor in Alltel's territory and may, in fact, be competing within Alltel's Florida territory today. Ebay recently spent $2.6 billion to purchase Skype - a software-based peer-to-peer ("P2P") file sharing program similar to Napster and Kazaa (the music file-sharing programs that caused much controversy), that allows callers to use the P2P file-sharing software to place voice phone calls over the internet in real-time with call quality that is comparable to the quality provided by the traditional public switched telephone network. Skype's software is available as a free download on the internet at www.skype.com and only

[24] Since Alltel provides DSL service over its own loops, Alltel's DSL customers are required to purchase 1R voice service from Alltel. Thus, existing Alltel customers would only be buying their 2nd and 3rd lines from Vonage or another VoIP provider. However, if the local cable TV provider offered broadband internet services to any of Alltel's customers, then those customer could purchase Vonage's VoIP local phone service without having to also purchase voice service from Alltel.

requires a 33.6 kbps dial-up internet connection for phone service although faster speeds are better. Calls between Skype customers are free and calls from a Skype user to a landline or wireless customer are approximately 2.3 cents per minute. Skype already has 54 million members in 225 countries and territories and adds approximately 150,000 users a day. In North America alone, Skype has more users and serves more voice minutes than any other Internet voice communications provider.[25]

Q. In addition to VoIP providers, could cable TV companies also provide competing voice telephone services in Alltel's Florida territory?

A. Yes, many cable TV companies such as Cox, Time Warner, Comcast, and others are providing voice telephony services over their cable networks throughout the U.S. and have plans to some day offer voice telephony service in Alltel's territory if they currently provide cable TV service there. Cox Communications has over one million telephone customers and plans to offer its $39.95 local calling/unlimited long distance calling plan in Alachua, which is currently served by Alltel.[26] Time Warner's Digital Phone service has been launched in all of its divisions and is available to over 70% of TWC Inc.'s homes passed.[27] Time Warner provides cable TV and broadband internet services in Live Oak, Mayo, Jennings, and Interlachen which are in Alltel's service territory. I anticipate that Time Warner will offer voice telecommunications in these Alltel communities in the future. In addition to offering voice telephony, Cox and Time Warner offer high speed internet service in direct competition with Alltel's DSL

[25] See "eBay to Acquire Skype" eBay press release dated September 12, 2005; available at http://investor.ebay.com/downloads/eBay_PressRelease.pdf included as Exhibit No. ___ (DCB-36).
[26] See Cox Communications website at http://www.cox.com/GainesvilleOcala/, included as Exhibit No. ___ (DCB-37).
[27] See Time Warner Inc, Form 10-Q Quarterly Report, Filed 8/3/2005 For Period Ending 6/30/2005; p.3. Included as Exhibit No. ___ (DCB-38).

offering. Both Cox and Time Warner bundle cable TV, broadband internet, unlimited long distance calling and, in some instances, wireless calling, with their local phone service in an effort to entice customers away from the ILEC.

Q. What should the Commission conclude with regard to whether the elimination of support will enhance market entry into the residential local exchange market?

A. The Commission should find, as it did in the Rebalancing Dockets, that the elimination of support will induce competitive entry into the residential local exchange market. In paragraph 3 in the Summary of Decision section of the Rebalancing Order, the Commission found that: "The elimination of such support (i.e., subsidies from intrastate switched access supporting local residential service) will induce enhanced market entry into the local exchange market."

Accordingly, based on the record in this case, the Commission should make the same finding in this proceeding for Alltel that the elimination of support will enhance market entry into the local exchange market. As discussed above, empirical evidence supports the contention that raising retail rates for basic local residential telephone service closer to cost provides stronger incentives for CLECs to enter those local markets and promotes facilities-based entry.

VI. ENHANCED MARKET ENTRY WILL RESULT IN THE CREATION OF A MORE COMPETITIVE LOCAL EXCHANGE MARKET THAT WILL BENEFIT RESIDENTIAL CONSUMERS

Q. How will enhanced market entry result in the creation of a more competitive local exchange market that will benefit residential consumers?

A. As discussed above, to the extent that Alltel's rates for local residential telephone service are moved closer to average cost, competitors will have a greater incentive to enter Alltel's territory and provide competitive local residential telephone service. Today, competitors are making in-roads into the local residential telecommunications market. Alltel's rate rebalancing is necessary to increase such competition.

Q. Is there evidence that other types of local telecommunications providers are competing with ILEC fixed-wireline local service?

A. Yes. CLECs, wireless carriers, cable telephony providers, VoIP providers, electric utilities, and even satellite carriers are competing in the local telecommunications market in Florida. In its most recent report to the state legislature regarding the status of competition in the telecommunications market in Florida, the FPSC discussed existing and potential competitors providing local telecommunications services, and stated:

> In an environment of emerging intermodal competition for voice service, analysis of this statutory factor (i.e., the ability of customers to obtain functionally equivalent services at comparable rates, terms, and conditions) is not simple. Customers may obtain what they consider functionally equivalent services – via wireline telephony, wireless, VoIP, or cable telephony.[28]

[28] See Florida Public Service Commission, *Annual Report To The Florida Legislature On The Status Of Competition In The Telecommunications Industry In Florida as of May 31, 2004*, p. 75, a copy of which is included as Exhibit No. ___ (DCB-15).

The report goes on to state that competition for local telecommunications service from wireless carriers is "fiercely competitive." The report states:

> Approximately 23 wireless competitors serve the state, including all six nationwide providers. Some 77% of Floridians have a choice of five or more wireless carriers. Statewide subscribership is high at over 10 million..... Florida's consumers benefit from an array of services, offered at competitive prices, by numerous and fiercely competitive providers.[29]

The Staff's report declares that Florida leads the nation in recognizing the benefits of VoIP technologies because of the Florida Legislature's proactive steps to exempt VoIP from unnecessary regulation. As a result, "[T]this model has already spurred several companies, such as Vonage, AT&T, and Bright House Networks, to offer VoIP service – a technology that makes use of a broadband connection to deliver voice service, at least in part, over the Internet."[30] In addition, the RBOCs, including Bellsouth, are also starting to provide voice service using VoIP technology further ensuring that VoIP technology will survive and prosper. The FPSC report also recognizes the potential of Broadband over power line communications (BPL) as another promising technology in the competitive telecommunications arena and notes that "Because power lines reach virtually every home and community, BPL provides potential to become an additional major communications pipe into the home."[31]

[29] Id. at 11; Exhibit No. ___ (DCB-15).
[30] Id. at 14; Exhibit No. ___ (DCB-15).
[31] Id. at 16; Exhibit No. ___ (DCB-15).

As conclusive evidence that competitors are making inroads into the market for local telecommunications services in Florida, the Commission's report notes:

> While not all customers have numerous alternatives to traditional telephone service today, the decline of the traditional telecom sector – and the emergence of alternatives to traditional telephony - are hard to ignore. ILEC access lines are decreasing, due at least in part to competitive technologies such as wireless, broadband, and VoIP. Florida-specific data supports this trend of declining ILEC access lines. Specifically, ILECs lost 12% of their lines to CLECs and intermodal competitors between 2001 and 2004.[32]

As Alltel moves the price of its residential local service closer to average cost, new entrants, especially those that are already competing in other areas of Florida, will have a stronger incentive to enter and compete in Alltel's service territory.

Q. Are competitors entering rural markets similar to those served by Alltel?

A. Yes. Rural communities are beginning to see smaller, regional competitors entering and providing local telephone service. Companies such as Unite Communications Systems are entering rural communities, deploying fiber, and offering triple-play packages of local phone service, cable TV, and broadband internet.[33] In other rural

[32] Id. at 17; Exhibit No. ___ (DCB-15).
[33] Unite Communications Systems provides local phone service, cable TV, and broadband internet services to rural communities in Kansas and Missouri. See http://www.uniteone.net/index.html to learn more about Unite Communications Systems. A copy of the home page is included as Exhibit No. ___ (DCB-16).

communities, cable companies are beginning to offer local telephone service in addition to cable television and broadband internet services. In other states, such as Washington and Utah, public utilities and municipalities have built their own fiber networks capable of providing local phone service, cable TV, and broadband internet targeting smaller communities.[34] And finally, the widespread reach of the internet into even rural communities allows companies, such as Skype, to offer an alternative to traditional ILECs as long as the user has access to dial-up speeds of at least 33.6 kbps.

Q. How will increased competition benefit consumers?

A. Increased competition will provide local residential consumers with a wider choice of local service providers that will offer new bundles of services, new and innovative services, and lower prices as they compete for customers. While it is impossible to know exactly who the competitors are that will enter Alltel's local market service territory, when they will enter, or which new bundles of services they will offer, we can be certain that more competitors will come once rates are rebalanced and will bring benefits to residential consumers because this has occurred in other states.

The success Wyoming has found in attracting competitors to its rural local telecommunications markets by rebalancing rates is indicative of the competition that consumers in Alltel's service areas can expect and illustrative of the benefits they will enjoy. Since the Wyoming Telecommunications Act of 1995 was passed ten years

[34] In the State of Utah, 14 municipalities that have banded together to build and operate their own fiber network under the project name of Utopia (Utah Telecommunication Open Infrastructure Agency). See http://www.utopianet.org/, a copy of which is included as Exhibit No. ___ (DCB-17). In Washington State, the Grant County Public Utility District and the Chelan County Public Utility District have built their own fiber networks. See http://www.gcpud.org/zipp/zippnews.htm, a copy of which is included as Exhibit No. ___ (DCB-18), and https://fiber.chelanpud.org/euedu/about_Us/PUD_Fiber/Presentations/ , a copy of which is included as Exhibit No. ___ (DCB-19).

ago, the Wyoming PSC has worked to rebalance rates for all of Wyoming's ILECs by reducing intrastate switched access rates and 1B rates and raising 1R rates to offset the reduced revenues. The result is that new competitors have entered the local telephone market in Wyoming despite the fact that local service areas in Wyoming are largely rural, high cost areas. These new competitors are offering better bundles of services (for example, cable TV bundled with high speed internet, local calling and unlimited long distance) with lower prices.

The Wyoming PSC's 2005 Annual Report on Telecommunications shows that Wyoming consumers now have a wider choice of local service providers offering new bundles of services as a result of increased competition caused by rate rebalancing. The report states:

> The Wyoming Act and the federal Act have had a profound effect on the development of the telecommunications industry in Wyoming. They have encouraged the development of competitive alternatives for business and residential. Competition and communications infrastructure development are increasing but it is not all being done by traditional service providers. Examples of this are the high speed data services being offered by Contact Communications in a number of smaller and larger Wyoming markets, the point-to-point communications services of Bresnan Communications offered using cable television infrastructure, the

proliferation of digital cellular service throughout the state, and the SWEETNET local infrastructure project.[35]

The Wyoming PSC's 2005 Annual Telecom Report goes on to say that:

> The successful entry of Silver Star Communications into direct facilities-based local service competition with Qwest in the Afton exchange shows that it is possible to be technologically advanced and successful in such a competitive endeavor in Wyoming -- even in a relatively small market.[36]

> Rural electric cooperatives like Carbon Power & Light now offer satellite service. In March 2005, it will participate in the trial of Wild Blue, a new and more technologically advanced satellite service capable of providing television programming, Internet service, and eventually VoIP. This service is targeted at consumers in rural areas which characterize rural electric cooperative service territories in Wyoming.[37]

A closer look at Contact Communications and Bresnan Communications shows that these two CLECs have carved out a niche targeting smaller towns and rural areas and providing them with quality voice telephony and high-speed internet connectivity.

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[35] See Wyoming Public Service Commission, *Wyoming PSC 2005 Annual Telecom Report*, prepared by the Wyoming Public Service Commission, January 10, 2005. p. 54, a copy of which is included as Exhibit No. __ (DCB-20).
[36] Id. at 62; Exhibit No. __ (DCB-20)
[37] Id. at 63; Exhibit No. __ (DCB-20).

Bresnan Communications is a broadband telecommunications provider founded in 1984 that targets small and medium-sized markets. Bresnan currently serves over 200,000 customers in Colorado, Montana, Wyoming, and Utah providing voice telecommunications, high-speed Internet access, cable TV, video-on-demand, and digital video recorder to residential and business customers across its own fiber-optic regional network that reaches across 95% of its footprint. Bresnan Business Services delivers custom data, voice, and video solutions to businesses and institutions of all sizes. Bresnan Digital Phone is currently available in Grand Junction, CO, Durango, CO, Cheyenne, WY, Billings, MT, Butte, MT and Helena, MT and offers local calling with unlimited long distance for only $39.95 per month which is superior to Qwest's bundled offers.[38]

Contact Communications is a CLEC headquartered in Riverton, WY (population 9,443) that grew out of Wyoming's largest privately held ISP and provides next-generation data telecom services to ISPs. Contact received certification to serve Qwest's territory in April 1997 as a wholesale data exchange carrier. The Company is expanding into additional services for ISPs and a variety of traditional telecommunications services (including voice telephony) using state-of-the-art protocols and expandable hardware designs. Contact serves numerous small, rural communities throughout Wyoming (with an average population of 13,600) and is certified in eight other western states. Contact's intent is to compete with the

[38] Bresnan Communications home page at http://bresnan.com, a copy of which is included as Exhibit No. __ (DTB-21).

incumbent telephone companies so that ISPs serving rural markets are able to offer advanced services with reasonable margins.[39]

In Wyoming, some consumers are substituting wireless service for their landline service. As 1R prices have increased toward average cost and as cellular prices have continued to fall, some consumers are discontinuing their landline service and relying solely on their wireless service for their voice telecommunications. The Wyoming Commission expects this trend to continue.[40]

As can be seen from the experience in Wyoming, competitors have moved in to provide service in Wyoming despite the fact that Wyoming is a rural, high cost state. Rebalancing rates has brought competition to Wyoming. As a result, Wyoming consumers have a wider choice of local service providers that are offering new bundles of services, new and innovative services, and lower prices as they compete for consumers' business. These same benefits will be realized in Florida after the Commission rebalances Alltel's rates.

Q. What other indication is present that enhanced entry will benefit residential consumers?

A. In reaching its decision in the Rebalancing Dockets, this Commission concluded that enhanced market entry will result in the creation of a more competitive local exchange market that will benefit residential consumers. Specifically, in paragraph 4 of the Summary of Decision portion of the Rebalancing Order, the Commission found:

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[39] See Contact Communication's home page at http://www.contactcom.net/default.htm, a copy of which is attached as Exhibit No. ___ (DCB-22).
[40] Wyoming PSC 2005 Annual Report; p. 54. Exhibit No. ___ (DCB-20).

Enhanced market entry will result in the creation of a more competitive local exchange market that will benefit residential consumers through:

a. increased choice of service providers;

b. new and innovative service offerings, including bundles of local and long distance service, and bundles that may include cable TV service and high speed internet access service;

c. technological advances;

d. increased quality of service; and

e. in the long run, reductions in prices for local service.

Additionally, the Florida Supreme Court agreed with the Commission that the introduction of competition will benefit residential language and stated: "We further conclude that the Commission's determination that its grant of the petitions will "[i]nduce enhanced market entry," is supported by competent, substantial theoretical and empirical evidence." Crist v. Jaber, ____ So. 2d ____, 30 Fla. L. Weekly S531, 2005 WL 1577998 (Fla. 2005).

Based on the record in this case and consistent with its decision in the Rebalancing Order, the Commission should make the same finding in this proceeding for Alltel that enhanced market entry will result in the creation of a more competitive local exchange market that will benefit residential consumers.

VII. AFTER THE PROPOSED RATE INCREASES, BASIC LOCAL SERVICE RATES WILL REMAIN AFFORDABLE FOR CONSUMERS.

Q. Will basic local service rates remain affordable for consumers after the proposed rate increases?

A. Yes. I reviewed Alltel's proposal and have concluded that it will not jeopardize universal service in its territory and its service will remain affordable. Alltel's prices for residential local service currently average around $10.49 a month. This is substantially below the national average of $14.53 per month (which includes only urban areas that are lower cost than rural areas).[41] Additionally, Section 364.164, Florida Statutes, requires that any price increase in basic local service not apply to Lifeline consumers and increases the income eligibility for Lifeline consumers to 135 percent. These requirements extend protection to those customers most likely to be sensitive to potential price increases from a rebalancing plan. Consumers will be better off overall as a result of rate rebalancing proposals that properly align prices with average costs as such prices send correct signals to both buyers and suppliers. Buyers will purchase the right amount of service and suppliers will supply the right amount of service. Because the price of Alltel's local voice wireline service is priced too low, competing suppliers are not entering the market and thus, are denying Alltel's consumers the wider choice of service providers, new bundles of service offerings, and lower prices that will result when competitors enter. Additionally, when the price of Alltel's 1R service is moved toward average cost and will rely less on support from

[41] See Zimmerman, Paul R., FCC *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service,* Industry Analysis & Technology Division, Wireline Competition Bureau, July 2005, Table 1.1, rates exclude Federal and State subscriber line charges, touch tone charge and taxes, 911 and other charges, a copy of which is included as Exhibit No. ___ (DCB-23).

other services, then the price of those other services (such as intrastate switched access) can be decreased. Ultimately, those decreases should flow through to end user customers in the form of lower intrastate toll rates.

There are a number of other reasons why I believe Alltel's rates for basic local residential telephone service will remain affordable after the implementation of Alltel's proposal. Empirical evidence suggests that virtually all subscribers will continue to purchase voice communications whether it be over Alltel's wireline network, one of the cellular company's networks, one of the cable TV company's networks, or by some other means. Local rates will remain affordable and universal service will not be negatively impacted under Alltel's proposal for the following reasons:

A. Basic local service rates will remain affordable because the price increase is a very small percentage of the average household's budget -- less than the cost of a movie ticket for one adult.

B. The majority of consumers are currently paying more than twice as much for cellular phone service, cable TV, and internet service.

C. Other states have determined that $20.00 is an affordable rate for basic residential local service.

D. Support for basic local service rates should be targeted only to low-income families needing financial assistance.

E. Lifeline ensures that basic local service will remain affordable for low-income families.

F. Increasing rates for basic local service has not had a negative impact on universal service in other states.

A. Basic local service rates will remain affordable because the price increase is a very small percentage of the average household's budget -- less than the cost of a movie ticket for one adult.

Q. Why do you believe that Alltel's proposed residential rates are affordable?

A. Under Alltel's proposed rate restructuring, Alltel's residential customers will see a maximum increase over two years of $6.00 in their monthly expenditure for local telecommunications services. Alltel's average rate for residential local service is currently $10.49 per month. Alltel's proposal increases rates to a maximum average of $16.49 per month. I use the word maximum here because it must also be remembered that after the rate rebalancing proposals of the large ILECs have been implemented, residential customers should see reduced expenditures for intrastate toll calling resulting in a change in total expenditures for local and toll services that is less than the $6.00 increase for local residential service. Even so, a $6.00 increase is less than the cost of a movie ticket for one adult.

A monthly total of $16.49 generates an annual expenditure for basic local residential telephone service of only $197.88 which represents only ~~0.7%~~ 2.2% of annual median family income of $29,972 in Florida and 0.5% of the annual median household income of $38,819 in Florida.[42] Table 2 in my Exhibit No. ___ (DCB-0) illustrates the

[42] See U.S. Census Bureau, Household Income and Expenditures, Census 2000 Summary File 3, Matrices P52, P53, P54, P79, P80, P81, PCT38, PCT40, and PCT41, a copy of which is included as Exhibit No. ___ (DCB-24).

relationship between household income and telecommunications expenditures. As can be seen in Table 2, annual telephone expenditures represent less than 2% of total income for any household. It should also be noted that the majority of households in the lowest income bracket are eligible for lifeline assistance which would reduce their expenditure by $13.50 per month; the per line amount for Lifeline in Florida, and reduce their annual expenditures for telecommunications services to only ~~0.7%~~ 2.2% of their annual budget.

Q. What would Alltel's rates for basic local residential telephone service be today if they had been indexed to inflation starting in 1984?

A. Rates for Alltel's basic local residential telephone service were set in its last rate case in 1984 and as a result have not kept pace with inflation. Although the Legislature through the FPSC has recently allowed Alltel and other ILECs to index basic local residential rates to inflation, this change did not take effect until 2001. If the rates for local residential telephone service had been indexed to the rate of inflation in the Consumer Price Index ("CPI"), the average rate for all of Alltel's residential voice services of $10.49 approved in 1984 would have gradually increased to $19.92 today. Thus, increasing Alltel's rate to an average of $16.49 only moves local rates two-thirds of the distance to where they would be if they were simply indexed with inflation beginning in 1984. Therefore, in terms of real dollars, the rates for Alltel's basic local residential telephone service have actually been decreasing each year by the rate of inflation up until 2001. When compounded over the past 21 years, Alltel's rates have decreased in real terms by 47% since 1984. Thus, if rates for phone service were affordable in 1984, then an average rate of only $16.49 per month should be

considered even more affordable since it is 17% less than the $19.92 rate that would be in place if Alltel's rates had simply kept pace with inflation since 1984.

Q. Can you provide a table to illustrate your point?

A. Yes. Table 3, which is contained in Exhibit No. ___ (DCB-O), illustrates the change in the average price of Alltel's rates for their various residential calling plans that would have occurred if the rates had increased at the same rate of inflation as other goods and services over the past 21 years.

As Table 3 illustrates, the prices of goods and services have nearly doubled since 1984, yet Alltel's prices for basic local residential telephone service provided over wireline were frozen from 1984 to 2001. These small annual increases in CPI pass by relatively unnoticed by most consumers and have little impact on their decision to continue purchasing the product. If the rates for basic residential local telephone service were indexed with inflation and increased annually the same as prices for bread, milk, and other commodities, it is likely that these increases would also have been relatively unnoticed by consumers and have had little impact on their decision to continue purchasing local service. However, due to the nature of setting rates in regulatory proceedings, rates for regulated telephone services such as residential local service, tend to be "lumpy" or move in occasional and sporadic jumps larger than the rate of inflation for one year. The fact that Alltel's rates have remained frozen for 17 years illustrates the efficiency gains made by the industry during this period.

B. The majority of consumers are currently paying more than twice as much as Alltel's proposed local residential service rate of $16.49 for cellular phone service, cable TV, and internet service.

Q. How does the price of Alltel's proposed rate for residential local service compare to what consumers are paying for cellular service?

A. Alltel's proposed average rate of $16.49 for basic residential local service is less than half of what consumers are paying today for cellular phone service in Florida yet, there are more mobile wireless telephone subscribers in Florida now than there are landline telephone subscribers. As of June 2004, there were 11,916,615 mobile wireless telephone subscribers in Florida[43] representing 68.5% of the 17,397,161 people in the state as compared to 11,418,566 landline telephone subscribers.[44] Florida's wireless penetration of 68.5% is higher than the US national average penetration of 57% and ranks Florida as the 4th highest state in penetration.

The average revenue per user (ARPU) for cellular phone service is $50.64 per month,[45] which is nearly five times greater than the current average monthly expenditure for local wireline phone service in Florida of $10.49. Verizon Wireless currently advertises a 450-minute wireless calling plan for $39.99 per month and a

[43] See *Local Telephone Competition: Status as of June 30, 2004*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 13; Released December 2004, which is included as Exhibit ___ (DCB-40).
[44] Id. at Table 6, which is included as Exhibit ___ (DCB-25).
[45] See *CTIA - the Wireless Association's Annualized Wireless Industry Survey Results, December 1985 – December 2004 Reflecting Domestic U.S. Commercially-Operational Cellular, ESMR and PCS Providers*, p.2 @ http://www.ctia.org/research_statistics/statistics/index.cfm/AID/10030. $50.64 represents Average Revenue Per User (ARPU) or the average monthly bill for one cellular telephone user, a copy of which is included as Exhibit No. ___ (DCB-26).

900-minute wireless calling plan for $59.99 per month.[46] The fact that more Floridians purchase cellular phone service at prices that are five times the current price of Alltel's local wireline phone service indicates that Alltel's approximately 95,000 customers in Florida should be able to afford local wireline phone service even when the price is raised to only $16.49 for residential consumers which is still just one third the rate of their wireless phone service bill. If consumers can afford a mobile wireless telephone for $50.64 per month, they can afford to pay $16.49 for local residential telephone service.

Q. How does the price of Alltel's proposed rate for basic residential local service compare to what consumers are paying for cable TV or internet service?

A. Not only have wireless telephones become widely used, but cable television subscription has reached high levels. In Florida today, 5,069,700 households[47] (out of 6,839,580 TV Households) or 74% of Florida TV households subscribe to cable TV and pay an average bill of $38.23 per month.[48] In addition, approximately 1,653,537 households (representing a penetration rate of one-fourth of all households) subscribe to broadband internet service in Florida paying an average of $39.95 for broadband access.[49] If 5,069,700 Florida households can afford to subscribe to cable TV for

[46] See Verizon Wireless website advertisement for its America's Choice wireless calling plan which is included as Exhibit No. ___(DCB-35).
[47] See the National Cable Television Association at http://www.ncta.com; Start date from Nielsen Media Research representing January 2005 TV households and September 2004 cable TV households, a copy of which is included as Exhibit No. ___ (DCB-27).
[48] See the National Cable Television Association at http://www.ncta.com; Industry Overview, Statistics & Resources, revenue data provided by Kagan Research LLC, a copy of which is included as Exhibit No. ___ (DCB-28).
[49] See "Trends in Telephone Service" - May 2004; FCC Industry Analysis and Technology Division Wireline Competition Bureau, Table 2.5 (June 30, 2003 data), a copy of which is included as Exhibit No. ___ (DCB-29). The estimate of $39.95 is based on Time Warner Cable's monthly charge for digital telephone service which includes local calling, unlimited long distance toll calling, and custom calling features.

$38.23 per month, there should be no question that they can afford to pay $16.49 for basic local residential telephone service.

Q. How do wireline subscribership and rates compare to subscribership and rates for similar services?

A. Table 4, which is contained in Exhibit No. ___ (DCB-O), illustrates that Alltel's proposed rate of $16.49 for residential local service is very reasonable when compared to the subscribership levels and the rates consumers pay for other communications services.

Q. How do annual expenditures for these various services compare in terms of a percentage of annual income?

A. As can be seen in Table 5, which is contained in Exhibit No. ___ (DCB-O), annual expenditures for telecommunications and video services remain a relatively small percentage of any household's annual income. Therefore, even after Alltel's rate for basic local residential telephone service is increased to $16.49 it will still remain small in comparison to the price of other services that Floridians are purchasing today and small in relation to a household's expenditures for all goods and services.

C. Other states have determined that $20.00 is an affordable rate for basic residential local service.[50]

Q. What have other states determined is an affordable rate for basic residential local service?

[50] $20.00 represents the base rate for residential telephone service that does not include the SLC, federal USF, E911, taxes, or other charges.

A. The majority of states in the United States have increased rates for basic local service. A sizeable number of these states have concluded that $20 is an affordable rate for basic local residential telephone service.[51] For example, in 2000, when the Illinois Commerce Commission established its state Universal Service Fund in Docket No. 00-0233, the ICC found that $22.23 was an affordable monthly rate for basic local residential telephone service for Verizon's customers.[52] In 1997, Wyoming established a universal service fund and simultaneously began moving basic residential rates toward cost. The weighted statewide average price for residential service rose from $19.61 to $26.78.[53]

Q. In terms of real dollars, what have other states determined is an affordable rate for basic residential local service?

A. When rates for basic residential local telephone service are analyzed from the perspective of the year when they were set, it is possible to get a feel for different state commissions' perception of affordability in terms of today's dollars. Table 6, which is contained in Exhibit No. ___ (DCB-O), lists states that have increased rates for basic local residential telephone service and adjusts those rates for inflation to show the real

[51]For the sake of comparison, please note that the base rate of $20 does not include the SLC, USF charges, EAS surcharges, intrastate toll, or custom calling features and is comparable to Alltel's proposed base rate of $16.49 for residential service.

[52]The ICC later revised the rate to $20.39 due to a mathematical calculation error in computing the rate the first time. See Second Interim Order On Rehearing Before the Illinois Commerce Commission; In re: Illinois Independent Telephone Association Petition for initiation of an investigation of the necessity of and the establishment of a Universal Service Support Fund in accordance with Section 13-301(d) of the Public Utilities Act; Docket 00-0233; Consolidated with Illinois Commerce Commission On Its Own Motion Investigation into the necessity of and, if appropriate, the establishment of a Universal Support Fund pursuant to Section 13-301(d) of the Public Utilities Act; Docket 00-0335; dated: March 13, 2002, a copy of which is included as Exhibit No. ___ (DCB-30).

[53]See Wyoming Public Service Commission "2000 ANNUAL TELECOMMUNICATIONS REPORT" prepared by the Commissioners and Staff of the Wyoming Public Service Commission; January 10, 2000, a copy of which is included as Exhibit No. ___ (DCB-31).

dollar value of those rates in today's (2004) dollars.[54] Expressed in 2004 dollars, the average "affordable" rate for basic local residential telephone service among the various states is $19.56.

Q. What did the Commission determine was an affordable rate in the Rebalancing Dockets with respect to Verizon, BellSouth, and Sprint areas?

A. When the FPSC authorized rate changes for Verizon, BellSouth, and Sprint last year in the Rebalancing Dockets, the Commission approved rates for basic local residential service as high as $18.34 for Sprint's highest rate group. Given that the Commission found that the proposed rate increases in the Rebalancing Dockets proceeding were affordable, the Commission should similarly find Alltel's proposed rate of $16.49 (which is less than Sprint's highest rate of $18.34) is likewise, affordable. Table 7, which is included in Exhibit No. ___ (DCB-O), illustrates the 1R rates for Verizon, BellSouth, and Sprint before and after the rebalancing proposals, as well as Alltel's proposed rates.

Under Alltel's proposed rate rebalancing plan, the new proposed rates will average $16.49[55] with only 20% of Alltel's customers paying an average of $1.60 more than that on a monthly basis. Therefore, I believe that Alltel's proposed 1R is clearly affordable and supported by Commission determinations in the previous case.

[54] 2004 represents the most current year for which annual CPI data is available.
[55] Weighted average of Alltel's proposed 1R rate.

D. Support for basic local service rates should be targeted only to low-income families needing financial assistance.

Q. Should the price of residential local service be kept low for all subscribers to ensure that rates are affordable for the lowest income levels?

A. No. The price of basic local residential telephone service should not be held artificially low for all consumers in order to make it affordable for the few consumers that would need financial assistance to buy telephone service if the price were to be increased to $16.49. Rather, financial assistance should be targeted towards those households that truly cannot afford the cost of basic local residential telephone service while allowing the price of local residential telephone service to migrate toward its average cost in order to foster a competitive market.

Q. What is the harm in pricing residential local service low for all subscribers rather than targeting Lifeline support?

A. By pricing basic local telephone service artificially low for all consumers rather than just for the few that need financial assistance, the size of the support mechanism is much larger than it would need to be to ensure that residential telephone service is affordable for low income households. An artificially low price also prohibits proper cost recovery, sends the wrong economic signals, and causes consumers to over-consume basic local telephone service (i.e., purchase more phone lines than they would if service was priced at average cost). From an economic perspective, this represents an inefficient allocation of resources. From a practical perspective, if the support is to be funded through rates for services that are priced above their average cost, it would not be sustainable in the long run. Finally, pricing basic residential

telephone service at artificially low levels serves as a significant impediment that discourages competitors from entering the local market and prevents consumers from enjoying the benefits of local telephone competition.

Therefore, rather than holding the price of basic residential local telephone service artificially low for the sake of affordability for the least financially able consumers, support should be targeted towards those individuals, families, or households that truly need such assistance to be able to purchase local telephone service.

Q. Would it be relatively easy to target assistance to needy customers?

A. Yes. Since the Federal Lifeline Assistance program is already in place, it should be relatively easy to add any additional targeted assistance to the Lifeline program's existing eligibility mechanisms.

The affordability of any service is relative to each individual household's income. It goes without saying that an increase of $6.00 is more affordable for households in the top 50th percentile of income levels than for households in the bottom half of income levels. However, the households in the lower income levels may already control their phone bill by using minimal amounts of intrastate toll calling services and therefore, may only see a small increase or even a decrease in their total monthly bill for local service and toll usage. Of course, the concern should be focused on consumers in households for whom affordability might truly be an issue. In Florida, the Legislature has addressed affordability by requiring ILECs that have rebalanced rates pursuant to Section 364.164 to offer their Lifeline Assistance Plan to customers with income at or

below 135% of the federal poverty level.[56] The Commission acknowledged this requirement in the Rebalancing Dockets. Therefore, Section 364.10, Florida Statutes, resolves the affordability issues for those households whose income levels are less than 135% of the current poverty level by targeting Lifeline support toward those households.

E. Lifeline ensures that basic local service will remain affordable for low-income families.

Q. Is Lifeline an effective method of ensuring that telephone rates remain affordable for low-income families?

A. Yes, as the FPSC determined in the Rebalancing Dockets, the best way to help low-income families continue to afford basic local service was to continue to use Lifeline subsidies, which are targeted toward low-income families. In paragraph 11 in the summary of decision portion of the Rebalancing Order, the Commission stated:

> Although we find that it is not a benefit that we should weigh in the balance in considering whether or not to grant the Petitions, the amended Lifeline provisions in Section 364.10 will help to protect economically disadvantaged consumers from the effect of local rate increases....

[56] See Section 364.10(3)(a), Florida Statutes [Exhibit No. ___ (DCB-32)], and the Rebalancing Order at pages 6 and 15.

The same finding is appropriate in this proceeding for Alltel that Florida's Lifeline rules are sufficient to help protect economically disadvantaged consumers from the effect of local rate increases.

Q. Is it possible that competition could eliminate the need for Lifeline assistance?

A. The Commission indicated in the Rebalancing Dockets that it anticipates that the development of a more competitive local telephone market would put downward pressure on prices for residential telephone service perhaps to the extent that the need for Lifeline assistance could be eliminated. The Commission stated:

> Although we cannot predict the future with certainty, economic theory suggests, and we are encouraged to believe, that the establishment of a more competitive local market will put downward pressure on local exchange prices that will eventually reduce the need for targeted assistance programs such as Lifeline.[57]

F. Increasing rates for basic local service has not had a negative impact on universal service in other states.

Q. Will increasing rates for basic local service have a negative impact on universal service?

A. No. This topic has been studied a number of times. Crandall and Waverman (2000) summarized the results of research, all of which concluded that the price of local service has very little impact on the decision to subscribe to telephone service. They

[57] See Rebalancing Order at 10.

presented evidence from the literature that the elasticity of demand for local service ranges from -0.006 to –0.17, with most of the more recent estimates well below –0.1. These relatively low elasticity levels mean that consumers are not responsive to changes in price. In their own estimates, Crandall and Waverman found that the local monthly rate is insignificant in the subscription decision. Thus, any increase to the rates for basic local residential telephone service is likely to have little, if any, impact on penetration.[58]

In the Rebalancing Dockets, the FPSC also considered this issue and concluded that increasing basic local rates has little impact on whether consumers subscribe to local telephone service. The Commission stated:

> Experience from other states that have rebalanced local and toll rates shows that approval of the ILECs' proposals will have little, if any, negative impact on the availability of universal service. While no customer likes to see a rate increase, the record shows that basic local service will continue to remain affordable for the vast majority of residential customers.[59]

Accordingly, the Commission should make the same finding in this proceeding for Alltel that basic local service will continue to remain affordable for the vast majority of residential customers even after the Commission rebalances local rates.

[58] Robert Crandall and Leonard Waverman, *Who Pays for Universal Service? When Telephone Subsidies Become Transparent,* Brookings Institute, (2000), pp. 91 – 93, a copy of which is included in Exhibit No. ___ (DCB-33).
[59] Rebalancing Order at 14.

VIII. SUMMARY

Q. Please summarize your testimony and your conclusions.

A. Increasing competition for telecommunications services that have traditionally supported basic local residential telephone services is making it difficult to maintain the high margins required to continue to provide support for local residential telephone services. The Florida legislature recognized this problem and passed the Act, which allows ILECs to rebalance their rates by increasing rates for basic local telephone service and offset the increase by reducing rates for intrastate switched access rates.

Alltel's proposed rate rebalancing plan satisfies the statutory requirements of Section 364.164, Florida Statutes. Specifically, Alltel has proposed to increase rates for basic local telephone service and to offset the increase by reducing rates for intrastate switched access that currently provide support for basic local telecommunications service. The existence of local service support prevents the creation of a more attractive competitive local exchange market. The elimination of implicit support will enhance competitive market entry into Alltel's residential local exchange market. Enhanced market entry will result in the creation of a more competitive residential local exchange market that will ultimately benefit consumers.

Alltel's rate rebalancing proposal will enhance economic welfare in Alltel's service territory. Cost analysis indicates that Alltel's rates for basic residential local service are currently priced significantly below average cost. Moving these rates toward average cost will give consumers and competitors cost-based pricing signals which will lead to more economically rational utilization of telecommunications services.

This, in turn, will help foster competition, which will increase consumer welfare by creating consumer choice, placing downward cost pressure on firms, driving prices downward, and stimulating innovation and investment.

Alltel's rate rebalancing plan will result in rates that will continue to be affordable because the proposed rates are in line with those already deemed affordable by the Commission for BellSouth, Verizon, and Sprint in the Rebalancing Dockets. Additionally, Lifeline assistance is available to ensure that local residential rates will remain affordable for low-income families.

In order for competition to develop in local markets, residential telephone rates must be rebalanced and moved toward average cost. Residential rates that are priced below this level and supported by other services make it much more difficult for competitors to enter local markets. Additionally, telecommunications services, such as intrastate switched access, that have borne the burden of supporting local residential rates are facing increasing competitive pressures and should no longer be required to support local residential telephone services.

Approving Alltel's petition to rebalance rates will align prices for basic local telephone service and intrastate switched access more closely to average cost which will lead to more economically rational choices by consumers and provide competitors with a better opportunity to compete in local telephone markets.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

BY MR. WAHLEN:

Q Could you please summarize your testimony.

A Good morning. My name is David Blessing, and I'm here on behalf of Alltel Florida. What I'd like to do now is summarize my testimony and basically provide you with my perspective as to why Alltel's proposal is consistent with the requirements of Section 364.164 of the Florida Statutes.

As we heard from Mr. Wahlen's opening statement, Alltel's proposal to rebalance rates meets all the criteria outlined in the Act. First, it will reduce current support, implicit support contained in intrastate access rates that flows to local rates. Second, the removal of the implicit support is done in a revenue-neutral manner as prescribed by the, by the Act. And third, moving the residential and business rates closer to cost by removing the implicit support will create a more attractive market for competitors that will lead to enhanced entry, more competition and ultimately benefits to consumers.

The rate rebalancing plan proposed by Alltel is consistent with economic theory in that theory would say that if a rate structure contains implicit support, it is sending the wrong signals to the market. Sending the wrong signals to the market will lead to a decline in social welfare.

The rate rebalancing plan, what it does is it takes the, the rates, removes the implicit subsidies, pushes rates

more to their average cost, which in turn will foster competition and lead to the benefit of increased choice for consumers, as well as benefits derived from placing downward cost pressure on telecommunications firms, which will reduce costs for businesses and residents through reductions in the costs of the products sold to the consumers of Alltel Florida's service territory.

The cost evidence presented demonstrates that Alltel's average basic local rates of $10 for residential service is priced significantly below Alltel's average cost of providing the service. We present three cost studies, one of which was an embedded cost study that was approved by this Commission in Docket Number 980696-TP, as well as two forward-looking studies. These studies are unanimous in their support for the notion that the $10 residential rate currently offered by Alltel, average rate offered by Alltel is well below average cost; therefore, that rate is being supported. The cost studies also indicate that the access rate is well above its cost, thereby being one of those services providing the implicit support to residential service.

These findings, I don't think, have been rebutted in this proceeding. In fact, I believe that staff has basically endorsed the idea that, that the access rates are contributing, are contributing support flow to residential rates.

It may seem counterintuitive that telephone consumers

will be better off with an increase in local service rates. However, as this Commission acknowledged when it approved the rate rebalancing plans proposed by BellSouth, Verizon and Sprint, rate rebalancing will enhance the development of competition, and the development of competition will lead to the various benefits that we've all learned in, in basic economics classes that derive from competition.

Additionally, Alltel's plan is not going to jeopardize universal service in its Florida service territory. Alltel's rates are in line with those approved for Sprint and the other large LECs in the large LEC docket. Additionally, and probably most importantly, those customers that need help will get it with the income eligibility Lifeline proposal of 135 percent or requirement of 135 percent. So those customers that would need support to make sure that telephone service is affordable will get that under this plan.

Two years ago in the large LEC docket the Commission determined that the rate rebalancing would enhance competitive entry in the exchanges served by the large LECs. Alltel Florida's presentation is very much the same. In fact, if Alltel had participated in the large LEC docket, presumably its plan would have been approved along with those of the large LECs.

Of key importance, and I think this was mentioned by both Mr. Beck and Mr. Wahlen, Alltel's service territory is

rural, but so too is the service territory of, much of the service territory of the large LECs. I think it was already said that there are probably ten times as many rural customers served by the large LECs than there are by the, by Alltel Florida, something in the range of about 750,000 as compared to 73,000.

The Commission's final order in the large LEC docket didn't draw any distinctions between exchanges serving rural and urban areas and didn't question whether or not rate rebalancing would enhance competition in urban exchanges but not rural exchanges. And I think that this is, is a -- the Commission was right on target in this because the Commission recognized that costs are higher in rural exchanges and approved higher rates for those exchanges, with the understanding that by eliminating the support between intrastate switched access rates and moving local rates closer to their average cost local competition would be enhanced. And I think it's important to realize that the need to enhance competitive development is probably more necessary in rural exchanges than it is in urban exchanges. And I think experience has borne that out just by looking at where competition has developed first in the urban areas and then later in the, the rural exchanges. I think the rural exchanges need help if the benefits of competition are going to reach all customers, including rural customers.

Finally, Alltel's rate rebalancing proposal is economically sound, it's consistent with the Act, it follows the past precedent of this Commission and, therefore, I believe it should be approved. Thank you.

COMMISSIONER DEASON: Just one quick question. Just so the record is clear, the exhibit -- I think we entered the exhibits earlier. But you want the corrected exhibit as the one that's corrected on the stand to be part of the exhibit that was entered into the record.

MR. WAHLEN: Yes, sir. That's correct.

COMMISSIONER DEASON: Okay. Commissioner.

COMMISSIONER EDGAR: Is this an appropriate time for questions?

COMMISSIONER DEASON: Sure. It's as good as any.

COMMISSIONER EDGAR: I have two questions from your statement, if I may.

The first is I believe early in your statement you said that current conditions contained, and these may not have been your exact words but I think they're close, that current conditions contain an inherent subsidy which sends wrong signals to the market, which causes, quote, a decline in social welfare. Could you elaborate on the decline in social welfare that either has been caused or is being caused?

THE WITNESS: Sure. By, by a reduction in social welfare, what I'm referring to is that resources are directed

incorrectly or inefficiently. And let me give you a case in point.

Probably the easiest example is to look at the case between business rates and residential rates and the differential that lies between those when there's relatively little difference of actually providing, the cost of providing the service. What it does do then is it provides support, a reduced price for those consumers that buy residential telephone service. But for those consumers that are buying the products of the businesses that are paying the higher rates, those businesses are passing that increased cost along to those consumers. So the prices of those businesses' services and goods are higher than they, than the efficient level would be and, therefore, consumers are paying more for that than they should. And that basically has a ripple effect all through the local economy, regional economy to a national economy that reduces the level of benefit or welfare that all consumers are, that all consumers have available to them.

COMMISSIONER EDGAR: Okay. And I had one other question. You also said that the, that the requested raise in rates will enhance competition and, therefore, I believe your words were, that benefits will flow to the customers. What is the time frame that you would expect those benefits to flow to current or future customers?

THE WITNESS: Well, that's a difficult question to

ask -- to answer. But we see competition all around us. You know, in the hotel when I was here for my deposition I watched the Vonage commercial numerous times. It's all around. And the question is whether or not those companies are going to market heavily in the rural exchanges, in the rural areas: Are they going to buy radio time on the local radio stations, are they going to put up billboards, are they going to, in Vonage's case, are they going to take whatever steps are necessary to get local numbers for all these rural exchanges?

And I think what, what this plan does by adding $6 in additional margin to the business plans of Vonage and whoever else, it speeds up their decisions. That's the first thing. So I think that, you know, the question is, well, competition seems to be coming anyway. And the, the answer to that, I think, is that, yes, it's coming anyway, but it's picking its spots. And if we want to induce the competitors to come into these rural exchanges, we have to make it profitable for them. They have to look at this as a reasonable business opportunity, and certainly increasing the margin by, by $6 or 60 percent is, is a pretty good idea or a pretty good way.

COMMISSIONER EDGAR: If I may just on that point though, and I do agree that it's probably a hard question to answer, but, but I guess the point I'm trying to get to and have a better understanding is that potential increase of $6 -- as you said, competition is all around, but that potential

increase of $6 is to jump-start, I guess, or to accelerate perhaps competition coming into these, these areas. And is there a way or can you speak to that $6 potential increase, what impact that will have on the time frame of that competition coming sooner rather than later?

THE WITNESS: Yeah. Well, it'll certainly make it faster. It'll certainly speed up the process. And let's say that under the normal competitive development or, as it's going now, the Vonages of the world are going to come in, make their, concentrate their efforts on the more urban exchanges or the exchanges, rural exchanges that have already had the rate increase, and maybe over time it would bleed over to, say, into Alltel territory. If you say that was, that would take 15 years or ten years, I think this would cut that in half or by a third just, just because it's going to get not only the Vonages of the world focused on the rural exchanges and saying, hey, this is a good place to do business, let's include this in our marketing and business plan, but it's also going to make consumers say, hey, I'm paying $16 for flat rate residential service. I can pay $25.99 for Vonage, on top of whatever their broadband access cost is, of course, but I get everything else including broadband Internet and long distance and so on and so forth. So I think it makes it -- it opens the eyes of both the competitors and the consumers, and that is going to have the effect of speeding things up, I think, significantly.

COMMISSIONER EDGAR: Okay. I think you said by approximately a half or a third. And can you tell me what, what your estimate of that time frame is based upon?

THE WITNESS: Well, competition is, competition and technology is increasing at an increasing rate. But what we see around us is, again, it's picking its spots and it's picking its targets. And I think that if we look at -- if I thought that, that VoIP, Voice over IP was going to become a mainline or mainstream competitor to wireline telephone or wireless will become a mainstream competitor to wireless, wireline telephone by, in, say, three years, I would say, well, it's probably going to happen in the urban areas first and then later, and then, you know, take twice as long, say, to happen in the rural areas. And I was just kind of speculating that if we can sort of level the playing field for the rural exchanges, then it would happen about at the same time it happens or just a little bit after than when it happens for the larger exchanges.

COMMISSIONER EDGAR: Thank you.

COMMISSIONER DEASON: Commissioner Bradley.

COMMISSIONER BRADLEY: As a part of your statement you made mention of the fact that many of the large LECs here in the state of Florida also serve rural areas. And as I process what you were saying, I got to thinking about maybe what some of the advancements are as a result of the fact that

they have had by this Commission rate rebalancing petitions approved. And then I started thinking about Alltel's footprint or service area or LATA, and I was trying to figure out if the implication is that maybe Alltel's customers are not being afforded some of the technological advances and other things that, that come with competition. And also I was thinking that here in the state of Florida what we're confronted with is, in my opinion, and it depends on who you ask, how rapidly we're growing, either a figure of 900 individuals a day or 900 individuals a week, which indicates that at that rate a lot of these rural areas are going to not be so rural, and I don't consider them as being so rural even at this point. I just think that we have some areas that are sparsely populated in between some major metropolitan areas. And Florida is unique in that it has a lot of metropolitan, has probably more metropolitan areas than most other states in the country outside of maybe one or two.

But my question is this: What is it -- is it your opinion that, that Alltel's customers are not being afforded the same offerings as, as, at this point technological offerings at this point that, that are being afforded to other rural customers who are served by large ILECs?

THE WITNESS: At this point I think that Alltel's technology is probably on par or superior to what you'll find in the old GTE properties or maybe some of BellSouth's

properties, and that's just based on my knowledge of how it is generally.

But the danger is, that we face here is what was in the Telecom Act of 1996 and in the three major initiatives that sprang out of the Act, and that being local competition, universal service and access reform. And that is a real worry that as competition develops in a patchwork fashion, urban areas first, business first, and not in rural residential areas, then there would be a sort of, a situation with the haves and have-nots in terms of technology and technological advance. And I think that has been a worry not just about competition in telephone but also the development of, of broadband, the Internet and everything else that public policy, good public policy states that or has stated that we want to make sure that rural customers have the same access to the same advanced technology as any other customer does, as an urban customer does and, therefore, gets the benefits of that new technology, consumer choice and so on.

And I think one of the real problems with, with denying this petition is that if you maintain residential rates at $10.49 for Alltel, what incentive does that provide for a competitor to come in and offer service and provide choice and technological innovation and so on? But even beyond that, what incentive does that provide the rural ILEC to continue to invest in those areas? I mean, they're doing their business

plans the same way that the competitor is doing their business plans, and they're going to look to place their finite capital dollars in areas that they think have the most potential long-term. And if there is a growing gap between rural and urban areas in terms of technology, I think capital dollars are going to be focused on the urban areas and to a lesser degree on the rural areas.

COMMISSIONER BRADLEY: Okay.

COMMISSIONER DEASON: I have a follow-up question to one of the questions that Commissioner Edgar asked, and it was in regard to the, to the effect of the roughly $6 a month increase in local rates and how that would -- and I don't mean to be putting words in your mouth, so if I misinterpret, please correct me -- but you said that would have an effect on potential competitors looking at perhaps having a larger profit margin if they were to enter a market. And you had said that it also would have an effect on customers because if they start looking at a higher local rate, well, then they're more likely to look at other alternatives; is that correct?

THE WITNESS: That's right.

COMMISSIONER DEASON: Okay. I want to put, ask the question in terms of the effect of customers that may be interested in looking at a VoIP alternative. And the question that I have is that is there really an incentive for customers to increase their local rate if they still have to pay that

higher local rate in order to get the broadband access which they have to have as a prerequisite to get VoIP service?

THE WITNESS: Well, yeah. And that's, that's an important issue that sometimes gets, in my mind, glossed over.

VoIP costs, charges $25.99, and basically their function is -- I'm sorry. Vonage, the VoIP provider, charges $24.99, and their function is really similar to what we would call in the old days a long lines provider. They don't provide the local loop; they don't provide that connection to the customer. So when we talk about it costing $25.99 or $24.99 for Vonage, what we're really talking about is $24.99 on top of the broadband connection.

In a lot of cases people are using cable service broadband, and so what they're doing is buying their cable service and they're paying, you know, upwards of $60, $70 for their broadband cable service, and then they're adding on the $25 or $24.99 to that for their phone service. So the real question is in incremental cost, is really a comparison of incremental costs. The person wants cable, already has cable, broadband cable, and wants to add phone service to it. The incremental cost of that phone service is $24.95. If they want to do the DSL route, if they want to use the telephone company's DSL route, they have the phone line already at $10.49 or $16.49, and then they add the DSL in Alltel's case for $35 more. So when you look at it that way, the incremental cost

is $35 on top of phone service, but $25 on top of cable service, but where you're starting from is a lot different. Basic local phone service is, you know, if this proposal is approved, is $16.49, where digital or broadband cable is probably $70.

So I guess when we, when we look at it and we say will customers really start looking more heavily at VoIP providers under this circumstance, if they've already got the cable service in place and they want to just add phone service to it, it's $24.95 for calling, you know, for unlimited calling all across the country versus $16.49 for flat rate calling just in Alltel Florida's service territory. If the person makes any, makes any number of long distance calls or is just sort of a risk adverse person that wants to know what their bill is going to be every month, they're not going to want things to jump around, you know, it's, it's a, it makes them look a lot longer and a lot harder at that decision. And that, I think, will make the marketing people of the, of Vonage and other competitors say, hey, this is a market that, that is probably a better opportunity for us than it was even with a, with just a $6, $6 lower rate.

COMMISSIONER DEASON: Do you know what the digital cable penetration rate is in the Alltel territory in Florida?

THE WITNESS: No, I don't know that.

COMMISSIONER DEASON: Commissioner.

COMMISSIONER BRADLEY: One other question on the social welfare issue. Was that a reference to the subsidization of rural services? My question is was it -- when you said social welfare, I think that's what you -- was that the question?

THE WITNESS: I'm sorry?

COMMISSIONER BRADLEY: When you mentioned social welfare, was that in reference to the subsidization of rural phone services?

THE WITNESS: Oh, no, no. By social welfare, I mean the -- social welfare is kind of the pie that the economy creates. And by, by eliminating distortions in markets, you basically maximize the size of the pie which all people, consumers can, can take a bite out of or share.

When you enter distortions or place distortions inside the market, what happens is that that pie shrinks. Okay? And one of the distortions is, are implicit support flows.

Now I'm not saying that we should eliminate all implicit support flows, make that pie as big as possible, because there are certain public policy reasons why support flows are, are considered practical and desirable.

For instance, Ms. Willis mentioned the fact that Alltel is not reducing its access rates all the way down to parity with intrastate, so there's still going to be a flow

from intrastate access, a support flow from intrastate access back to, to residential service.

But there is a, there's a trade-off. Do you want to increase your rates by $10 immediately or do you just want to go to $6? And that's sort of a social policy trade-off that, that has to be determined in, in proceedings, proceedings like this.

I also think that because of the, the idea that we don't want a technological and competitive divide between rural and urban areas that we want to keep a pretty straight eye or a pretty good eye on what's happening in the rural areas or the, quote, unquote, high cost areas to make sure that those consumers are still receiving state-of-the-art technology, telephone service, Internet and so on.

COMMISSIONER BRADLEY: And I know we need to let you give your testimony, but Commissioner Deason asked a question that kind of goes to something that's been in the back of my mind. When I think of the rural areas, I think of not cable but satellite, and satellite is not inexpensive. But if there is something that can be done by this Commission in order to jump-start more digital cable penetration which would eliminate the cost of satellite, it seems to me that rural customers would be saving a tremendous amount of money. And I don't know what the cost of satellite is in terms of installation and what the monthly payment is to maintain the service, but do you see

that as one of the residuals?

THE WITNESS: Well, I do see that the -- I mean, not to be flippant about it, but some people say that cable is the last great monopoly out there. And, you know, we pay a lot of money for our cable service, but a lot of us do it. And I think what holds penetration back for cable is not necessarily lack of demand but lack of supply. But that's changing over time. The cable companies are building out, competitors are coming in. Verizon, where I live in Fairfax County, Virginia, just got the okay from the county government to offer full cable service, so they're going to be coming in with fiber to the curb and, you know, the whole bit. But anything you can do that is going to push out technology to rural areas, I mean, I think is a good, good thing. But there's -- again, we have that trade-off. If you do do that in a public policy fashion which introduces distortions into the market, then you could be restricting the size of that social welfare pie. So it's -- you've got to kind of weigh the benefits and the costs and determine what's the best way to go.

COMMISSIONER DEASON: Mr. Wahlen, anything before you tender the witness?

MR. WAHLEN: No, sir. The witness is tendered.

COMMISSIONER DEASON: Mr. Beck.

CROSS EXAMINATION

BY MR. BECK:

Q Mr. Blessing, could you turn to Page 7 of your prefiled testimony, please.

A I have it.

Q What I'd like to do is discuss to begin with a little bit about penetration of telephone service in Florida, and you address that at Footnote 3 on Page 7, do you not?

A Yes.

Q In Footnote 3 you state that penetration in Florida peaked in 2003 when 95.0 percent of all households in Florida subscribed to basic local residential service on the wireline network. Do you see that?

A Yes.

Q And then a little further down you say, "Based on the most recent FCC data, May 2005, 91.6 percent of all households in Florida subscribe to basic local residential telephone service on the wireline network." Do you see that?

A Yes.

Q Okay. And then you conclude and say, "It should be noted that the FCC's household penetration statistics do not count households that only use a wireless phone for all of their voice communications and have discontinued their wireline service." Do you see that?

A Yes.

Q What I'd like to do is take you to some source documents I believe you probably used for this in your

exhibits.

A Yes.

Q And could you turn -- go to your Exhibit 2, which is in your first volume of exhibits, and Table 3 on Page 19.

Mr. Blessing, this table contains some of the data concerning household penetrations by state, does it not?

A Yes.

Q I take it -- and at the top it shows there's a row for the United States as a whole and then it shows each state underneath including Florida; is that right?

A That's right.

Q Okay. And in March of 2003 Florida had 95.0 percent penetration. And I believe -- is that the number you used in your footnote?

A I believe so, yes.

Q Okay. Penetration actually peaked at 95.2 percent in July of 2003, did it not?

A It appears that way, yes.

Q Okay. And in July of 2003 the penetration in Florida at 95.2 percent was exactly the same as United States as a whole at 95.2 percent; is that right?

A Yes.

Q Okay. You see there's different columns: One says "Unit" and one says "Available." Do you know what the difference is between those two?

A You know, I did at one time, but I can't remember what the difference is.

Q Would "Unit" be the actual household where "Available" means the phone is available either in the household or elsewhere to the subscriber?

A It could be, yes.

Q Well, let's straighten that out. On Page 4 of that same exhibit at the very bottom, in the very last paragraph, the bottom of that, doesn't it say that the column headed "Unit" indicates the percentage of households for which there is telephone service in the housing unit, and the column "Available" indicates the percentage of households which have telephone service available for incoming and outgoing calls either in the housing unit or elsewhere such as at work or in a neighbor's home? Is that the difference between those two columns?

A Yes.

Q Okay. We've been discussing the "Unit," which means there's actually a telephone in the household unit; is that right?

A That's right.

Q Okay. Now could you turn to Page 21 of the exhibit. That's the most recent one that's, that's contained in your testimony; is that right?

A That's right.

Q And this is March 2005?

A Yes.

Q And the United States as a whole went to 92.4 percent and Florida went to 91.6 percent. Do you see that?

A Yes.

Q Okay. Would you agree with me that between July of 2003 and March of 2005 the relative standing of Florida compared to the national average actually dropped?

A It's lower than the national average, yes.

Q Okay. And in July of 2003 it was at the national average, wasn't it?

A Right.

Q So relative to the national average, Florida is doing worse in March 2005 than it did in July of 2003; would you agree with that?

A Well, you know, I, I don't, I don't like to use the term "worse" here because you're talking about monthly data and monthly survey data, and there's a lot of little issues involved in collecting it. But I will say that the number is lower in Florida in March of 2005 than it is nationally.

Q Okay. And do you know or do you have any explanation of why both the national average dropped and Florida dropped from July 2003 to March of 2005?

A Well, I think the -- most people would speculate that a lot of people are -- this wireless -- this penetration stuff

generally deals with wireline penetration, and there are other intermodal options available now that may not be picked up in these numbers.

Q Okay. There's been one more report issued since you filed your testimony, has there not, concerning penetration or do you know?

A I haven't seen it, if there has been.

MR. BECK: Commissioner Deason, I'd like to ask that this exhibit be given an identification for -- or be given an exhibit number for identification purposes.

COMMISSIONER DEASON: Okay. It will be identified as Exhibit 58.

(Exhibit 58 marked for identification.)

BY MR. BECK:

Q Mr. Blessing, do you have Exhibit 58 for identification in front of you?

A Yes, I do.

Q Okay. And would you be willing to accept, subject to check, that this is one more -- or more recent results of the survey than was available when you filed your testimony?

A Yes, I would.

Q Okay. And in this data it shows the, the United States as a whole increased between March and July of 2005 to 94 percent penetration. Do you see that?

A Yes.

Q And Florida went from 91.6 to 93.0; is that right?

A Yes.

Q Okay. So that in July of 2005 there was overall increases in penetration both nationally and in Florida, but the difference between Florida and the national penetration is even greater in July of 2005 than it was in March; is that right?

A Well, it's by two-tenths of a percent. Is that what you're referring to?

Q The difference increased by two-tenths of a percent so that the actual difference is a full percentage point.

A Yes.

Q In other words, nationally it's 94.0; Florida, it's 93.0.

A Yes. But I would -- you know, I don't know where you're heading with this, but I would caution putting a lot of emphasis on variations within a few months of a few tenths of a percent. I mean, if you're just looking at the change in the numbers, then, yes, I agree with you.

Q Okay. Do you have anything further or any reasons in your mind of why there appears to be a difference between the national penetration rate and Florida's?

A Well, there could be any number of reasons. One pops into my head that Florida has a large percentage of, of part-time residents who may or may not have wireline telephone

service in their house, preferring to rely on wireless or some other form. But there are probably several reasons.

Q Okay. You don't believe that these numbers reflect wireless telephones being available in the unit, do you?

A No, I don't.

Q Okay. Could you turn to Page 2 of your Exhibit 2. And I'd like to refer you to Footnote 2 on Page 2. Could you take a second -- have you read the Footnote 2?

A I will read it again.

Q Please.

(Pause.)

Have you read it, Mr. Blessing?

A Yes, I have.

Q Would you agree that this survey is intended to include wireless, VoIP and any other telephone that's available to a household?

A Well, yes, I think they try to get at that, that information. But if you read Footnote 2, they've been changing the questions, you know, year over year trying to get at that information.

My understanding is that they don't think that they have really solved this problem yet to really get a full intermodal penetration rate, and that's what I was referring to.

Q Okay. But you would agree that, that they are

trying, in fact, to count cell phones and other types. It's not -- in other words, the statistics aren't intended to only reflect wireline.

A They are trying, but whether they're successful at it is up in the air.

Q The statement in your testimony that the FCC's household penetration statistics do not count households that only use wireless phones really isn't the whole story, is it?

A Well, I think when this was written it was in the midst of this, and in Footnote 2 there were questions about whether or not people understood the question to mean wireless only and so on and so forth. So could that line be clearer? You know, maybe. But I don't think it's incorrect.

Q You were listening when I had a discussion with Ms. Willis. We talked about the availability of Vonage and the availability of telephone numbers to subscribers where they could get a local telephone number in Alltel wireless exchanges. Did you or somebody who works for you do the research that indicated they could?

A One of my colleagues did, yes.

Q Okay. Can you provide any more information about it than we had in my discussion with Ms. Willis?

A Yes. What my colleague did is he went onto the website, I think pretty much probably the same website that you printed that page from, and he had collected, previous to going

onto the website he had collected a number of phone numbers in various territories or towns in Alltel's territory by going to the online yellow pages. And he would get, say, the chamber of commerce in the town, the city hall or a restaurant, and he would enter the numbers into the Vonage Web page. And those that came back saying, yes, you can keep your same number, we took to mean that, that Vonage could provide a local number in that territory.

Q So you think that every 904 exchange that Alltel has can get, can be provided a local phone number by Vonage in the Alltel exchange?

A I don't know about that. I think the interrogatory response listed a certain number of towns that you could do it, and I think that's what, that's what we discovered in the research.

Q The interrogatory response is Interrogatory 76 at Page 2 of 3. Do you see that where you list certain cities and say that it's 22 percent of Alltel's customer base?

A Yes. And I also see in parentheses a list of towns, and I think what we did -- you know, obviously we couldn't put in every phone number in the 904 exchange that Alltel serves, but we took samples or we took numbers from these towns and it came back and said you could get service.

Q Are there some exchanges in the 904 area code that Alltel serves that are not included on that list?

A I don't know.

Q On Page 28 of your testimony you do a comparison of Alltel's local rate to the Vonage $14.99 plan; is that right?

A Yes.

Q Okay. And in essence you say that at the current R1 rate Vonage is not attractive, but that if you can increase your R1 rate to be greater than Vonage's, that it would be attractive. Does that fairly --

A I think any time you raise the rate it becomes more attractive for competitors.

Q When you compare the price of Alltel's R1 service in your testimony, and I'm referring specifically to Line 9 at Page 28, did you include the subscriber line charge that's charged on --

A No.

Q Don't you think you ought to?

A Well, you could. But then also for Vonage's service you also have to talk about what else is there, and then you would have to try to make a full apples-to-apples comparison, you would have to put in some estimate of toll.

I think the only point I was trying to make here is the simple one. If the rate goes up, you know, from $10 to $16, which is a 60 percent increase, it's going to be more attractive for competitors to come in and compete in that area. And on the same, by the same token, it's going to

be more likely that consumers will, will take the time to evaluate whether they want to switch.

Q But right now if you add the subscriber line charge to Alltel's existing rate, it already exceeds the $14.99 plan of Vonage, does it not?

A $6.50 plus $16.49 is higher than $14.99.

Q And $6.50 plus the current rates of $10 and something exceed it as well, does it not?

A That's right.

Q Do you know of any companies that offer DSL on a stand-alone basis where they're not, you don't have a tie-in with purchasing local residential service?

A I know that, you know, you mentioned the example of Verizon. I also know that other companies are willing to do it but that it becomes a matter of price. Now if you wanted to figure out a price for DSL service, you would have to look at what the cost is. And that cost of DSL service, and I'm just talking about stand-alone DSL service, is going to include the loop, it's going to include some sort of termination device that puts it into a DSLAM, and then it's going to have to include something that takes it from the DSLAM out to the ISP, in this case Alltel or whoever is the ISP.

Now given that Alltel's loop cost is in the range of about $25 to $30, it would seem to me -- and that's just for the loop, that's not anything else, not the Internet service or

anything -- it would seem to me that paying $16 for that and getting everything, plus, and then paying your Internet charge on top of that isn't that bad a deal.

Q But Alltel is not willing to offer DSL as a stand-alone product without residential service at any price; is that true?

A But if you called up Alltel and said, I want a residential service line for $16.49 and you ended up not using it for residential service, they'd sell it to you. I don't understand -- it becomes a matter of price. That's all I'm, I'm trying to say to you.

Q Right. But Alltel will not offer DSL unless you also buy residential service or business service from them.

A That's true. But in Alltel's case with the rates as low as they are I don't see that as a hindrance to a consumer buying it.

Q Right. And as the -- if the petition is granted and residential rates go up by $6, then that tie-in also affects somebody who wants to purchase DSL service in order to use a VoIP provider, does it not?

A That's right.

Q Okay. And there's no technological reason you can't offer DSL as a stand-alone product; it's just a policy decision by the company?

A Right. But if I'm a consumer, I don't care -- the

fact that Alltel has made that policy decision, I don't really mind because I know that I can pay for that $16.49 R1 line, pay $16.49 for it, and that's going to be a lot cheaper than the cost of buying that loop and then the other pieces to, to complete just a stand-alone Internet service.

Q Mr. Blessing, you just mentioned or I guess a moment ago mentioned the price of the loop, and I believe you discussed that with staff in their deposition of you, did you not, the cost of a loop?

A I'll take your word for it.

Q Well, let me ask you to turn to your deposition at the bottom of Line 16.

A I don't have a copy of my deposition.

MR. WAHLEN: Hold on.

THE WITNESS: Page 116, Mr. Beck?

MR. BECK: 16. I'm afraid my line is different than -- hang on a second. My printed out version is different from the one staff handed out.

THE WITNESS: Yeah. Because I only have 40 pages here.

MR. WAHLEN: I just gave him the compressed version, so it may be a little harder for us to do this.

BY MR. BECK:

Q Let me ask this. Is it your understanding that the unseparated cost of a loop for Alltel is approximately $25?

A Somewhere in that neighborhood, yes.

Q Okay. And if you wanted to get the intrastate portion of that loop, approximately you would look at three-quarters of that cost to find the intrastate portion; is that right?

A That's right.

Q So that would be about $17; is that right?

A I think it's closer to $18, but.

Q Let's go with that. Now your current local service price is $10.49; is that right?

A That's right.

Q But you also have a subscriber line charge of $6.50; is that right?

A Well, but that subscriber line charge, if you're going to throw that in, then you can't whack the unseparated loop cost by 25 percent because the subscriber line charge is recovering that 25 percent.

Q Okay.

A And whack is the technical term. I'm sorry.

MR. BECK: That's all I have, Mr. Blessing. Thank you much.

THE WITNESS: Thank you.

COMMISSIONER DEASON: Staff?

MR. SUSAC: Thank you, Mr. Chairman.

CROSS EXAMINATION

BY MR. SUSAC:

Q Good morning, Mr. Blessing. As I mentioned earlier, my name is Jeremy Susac. I'm an attorney here at the Commission. I have a few questions for you. To the extent you can answer yes or no, we'd appreciate it, although I understand that sometimes your answers can't fall in with a yes or no and you need to qualify. That is fine.

At the outset I'd like to refer you to your direct testimony, Page 31, Lines 6 through 13, and if you need so, your response to staff's interrogatory number 38. And I'm going to proceed with the question because I don't think it's necessary that you have to actually refer to it.

Am I correct that you cite CLEC resellers, wireless carriers, VoIP providers and cable telephone providers as competing with Alltel in its local market and that the rate rebalancing is necessary to increase such competition?

A Yes.

Q And one of the criteria that the Commission must consider in addressing Alltel's petition is whether the approval of the petition will induce enhanced market entry; is that correct?

A Yes.

Q And in your direct testimony along the lines of Page 24 through 28 you discuss two empirical studies, one by Ros and McDermott and the other by Eisner and Lehman, which you also

discussed in your deposition; is that correct?

A That's right.

Q Could you please refer to your direct testimony, Pages 24 through 25, pertaining to the Ros and McDermott study?

A Okay.

Q According to your testimony, this study addresses the effects of, quote, unquote, unbalanced rates on the development of competition for local residential service; is that correct?

A That's right.

Q For the purposes of this study how were unbalanced prices defined?

A I think generally they were just defined as a large divergence between residential and business rates.

Q And as prices were more unbalanced, do the studies show that smaller percentage of ILEC residential lines were served from wire centers with CLEC collocation arrangements?

A I think it did say that. But I think what they also said was that a smaller percentage of residential lines were served by CLECs, period.

Q Okay. But there were some CLECs with collocation arrangements; is that correct?

A Yes.

Q And for CLEC resellers, wireless carriers, VoIP providers, cable telephone providers, we established in your deposition, did we not, that none of these providers use

collocation, collocation arrangements?

A Right. But I think if you read the, the abstract of, of Ros and McDermott, they say right in there that the results support the idea that you should price -- your prices should be more reflective of cost. In other words, you should eliminate implicit support flows. And that was the purpose of, of citing the Ros and McDermott study in my testimony is that they found the pretty obvious result, their research found a fairly obvious result. If the residential rate is really low, then competitors are not likely to come in. And as the rate increases, then more competitors have a tendency to come in. That was the purpose of citing the study in my testimony.

Q Turning now to the Eisner and Lehman study. And if you need a reference, that's Page 27, Lines 14 through 16 of your direct testimony. Am I correct that according to your testimony, quote, unquote, the authors were interested in the efficacy that the pricing of unbundled network elements and the setting of resale discounts has on a CLEC entry?

A That's correct.

Q And for CLEC resellers, wireless carriers, VoIP providers and cable telephone providers, we established, did we not, in your deposition that none of these providers use UNEs or currently receive a discount from Alltel?

A That's right. But, again, the Eisner and Lehman study concluded in the body of the paper that there is a direct

relationship between the number of residential lines served by CLECs and residential rates. The higher the residential rate, the higher number of residential lines served by CLECs.

Q And that's a traditional CLEC?

A Any CLEC.

Q Any CLEC?

A Yeah.

Q And in your deposition do you recall that we also discussed how wireless carriers, VoIP-based providers and cable telephone providers may react to Alltel's rate increase for basic local service?

A I recall that line, yes.

Q And for these competitors would any increase in average gross margin per customer depend on whether the competitor could increase its price?

A Well -- and I don't know if we got into this at the deposition, but thinking about it, if they're not in the market, they don't have a price to increase. So that question is kind of, was kind of confusing to me in the discovery. And you say, well, geez, will this allow them to increase their margin? Well, it depends on whether they increase their price whether the margin is going to go up.

But I think the point is if the residential rate goes up, more competitors are going to come in and the existing competitors are going to view the market as a better

opportunity and increase their efforts.

Q Okay. Well, just going along the lines of the Vonage commercial that you saw, and I think Mr. Beck alluded to this earlier, are approximately $25 per month on a nationwide basis. To the extent everything else holds true and they enter Alltel's footprint and they charge $25, would they have to increase their price to increase their gross margin per customer?

A If they're not in Alltel's market yet?

Q Yes.

A They have -- again, they wouldn't have a margin to increase or a price to increase because they're not, not there yet. Are you saying would they increase their price from $24.99?

Q Yes. That's exactly what I'm saying.

A I doubt it, no.

Q Okay. And just for clarification of the record, do wireless carriers, VoIP-based providers and cable telephone providers offer a stand-alone service akin to Alltel's basic local service?

A Well, wireless providers have basic, very basic plans that, that can be viewed as being similar to, to traditional wireline service.

Q In what ways?

A Well, you have a relatively low price and a bucket of

minutes. Now consumers that don't make a lot of calls can pay, you know, in some cases, I don't know what it is here in Florida, but they can pay $19.95 for, you know, a basic wireless package with, you know, 100 minutes included or something like that. If they don't make a lot of calls and go over that allowance, then their bill is $20 compared with what the wireline customer is paying, if the proposal is approved, the $16.49.

Q If the Commission approves Alltel's petition, Alltel would increase its rates for basic local service but not, but not bundled packages; is that correct?

A That's right.

Q And do wireless carriers, VoIP providers, cable telephone providers typically offer services only in a package?

A I think most VoIP providers offer bundled services because generally that's what customers want. But, again, the wireless people have a number of different options and plans, some of which are bundled, some of which aren't.

Q And if you could indulge me in these next couple of questions, it's the same line of questions, just for different providers: Wireless, VoIP-based and cable telephone providers. What we're going to ask you to do is maybe put the importance on a scale of one to five being the most important.

And I'll just -- for the record, how important would the following rates be for a competing wireless provider in

setting its own prices: Alltel's rates for basic local service, would that be a one to five, five being the most important?

A How, how important would it be to a wireless company in its rate setting process of what Alltel's rates are?

Q For basic local service.

A For basic local service. To the extent that they launched a package that was designed to compete with wireline service, in other words, they were trying to get customers to drop wireline and use their wireless, I would say it's very important.

Q Somewhere along the lines of a four or a five maybe?

A Yeah.

Q Okay. Thank you for your indulgence. I mean, I know it's probably an awkward question, but it helps us greatly.

Same question, if the Commission approves Alltel's petition, how important would it be for Alltel's rates for unbundled (sic) packages?

A For bundled packages?

Q Yes.

A Well, bundled packages are a little bit different in the sense that -- take Alltel's bundle, it includes both local and toll. So the fact that the wireline portion of the bundle, the rate is going up, but for the long distance portion we hope the rate comes down because of the, the pass-through of the

access charge reductions. So to that extent, you know, I think that's the reason why Alltel's bundle shouldn't necessarily change their prices. And if the bundles don't change their prices, I don't suspect those competitors that are competing with Alltel's bundled offerings would be very likely to change their prices either. So I would say in your scale, your one-to-five scale, one or two.

Q Same question for a VoIP-based provider.

A For a bundle or for a --

Q Well, they offer it in a bundle; is that correct?

A Okay. Yes. But you had made the distinction earlier. I just wanted to be clear.

Q Okay.

A So to what degree would the pricing decisions of a VoIP provider offering a bundled service reflect or be influenced by changes in Alltel's local flat rate, that's the question?

Q Actually I think I might, might be confusing you. It's how important would the following rates be for a competing wireless provider in setting its own prices: Rates charged by a VoIP-based provider offering a bundled package?

A To the extent that the wireless provider was going after local customers, in other words, not just traditional wireless customers, but getting people to turn off their wireline connection, be it whether it's Alltel's wireline or

VoIP, I think those prices will be important.

Q Let me move along and see if I can't bring this all together with a couple of questions.

When wireless carriers, VoIP providers, cable providers set their own prices, would you agree that these providers consider rates of various competitors and services which include much more than Alltel's rates for basic local service?

A Yes.

Q Would wireless carriers, VoIP providers, cable telephone providers experience any cost reductions as a result of the Commission approving Alltel's petition?

A To the extent that they are terminating toll calls on Alltel's network, they would see, potentially see a reduction in access charges.

Q And in the grand scheme of things is that a large reduction?

A For a Vonage? Overall.

Q For a wireless carrier, a VoIP provider or a cable telephone provider.

A I guess where I'm having trouble is are you talking about in the, across their entire operation nationally would the fact that what happens to Alltel Florida have much of an impact one way or the other?

Q Just doing business in Alltel's footprint. Would

they -- would wireless carriers, VoIP providers, cable telephone providers experience any cost reduction as a result of the Commission approving Alltel's petition, Alltel Florida's petition?

A To the extent that they terminate toll calls to Alltel customers, yes, they would, they would experience a cost reduction. The degree of that cost reduction would depend on how many toll calls they terminate.

Q And my next question addresses the passage in Order Number PSC-03-1469-FOF-TL, which was the Commission's final order on the access charge reduction petitions by BellSouth, Sprint and Verizon. You have also provided this as an Exhibit DCB-10 attached to your direct testimony. If you could, could you please turn to Page 23 of that exhibit, sir?

A Okay.

Q And could you please now look to the paragraph under "Findings and Decision"?

A Okay.

Q Could you please -- hold on one second. Give me a chance to get there. And looking at the second full paragraph starting with "Companies providing bundled offerings," could you just read that into the record and for the benefit of myself?

A Sure. The paragraph beginning with "Companies"?

Q Yes.

A "Companies providing bundled offerings that include both local and long distance service will benefit not only from the increased rate at which residential service can be offered on a competitive basis, but also from the decreased terminating access rate. These changes will make providing bundled packages to residential customers more economically attractive because companies will increase their profit margin."

Q And in your deposition I believe you agreed that this paragraph indicates that for companies providing bundled offerings of local and long distance service, the average gross margin per customer would improve as a result of BellSouth, Sprint and Verizon's access charge reduction petitions being approved; is that correct?

A Yes.

Q And if the Commission approves Alltel's petition, do you agree that there is a considerable uncertainty whether the average gross margin per customer would improve for wireless carriers, VoIP providers and cable telephone providers?

A No.

Q And could you elaborate on that?

A Well, is it uncertain whether or not they will see the same benefits that are listed in this, this paragraph? Again, to the extent that they terminate toll calls, they're going to see the reduction in access charges. And the increased rate at which residential service can be offered will

also help. So I don't know -- I don't understand what you mean by -- I don't understand why you would think there would be some gross uncertainty or large degree of uncertainty.

Q I didn't say gross, but to the extent -- is that a no then?

A Well, I answered the question no, and then you asked me to elaborate.

Q Okay. Since the Commission's final order on the access charge reduction petitions filed by BellSouth, Sprint and Verizon issued in December 2003 has the level of competition in Florida between wireless carriers, VoIP providers, cable telephone providers and incumbent wireline carriers generally increased?

A I would, I would imagine it has, yes.

Q And has Alltel observed the same competitive trends in its Florida service territory?

A I think Alltel is, is seeing competitive pressure, but nothing to the degree that you see in the urban areas. And the purpose of this proposal is to increase that rate of, of competitive entry.

Q With the increase of competition then from a variety of sources, are all providers now more limited in their ability to increase rates for residential service packages?

A In a competitive -- to answer your question I have to take a step back. In a competitive market you're limited in

your ability to raise prices once that, once your price is at its average cost or the average cost prevailing in the industry if you have a number of competitors with different technologies, so on and so forth.

I think the point here is at $10.49 Alltel's residential rate is nowhere near that point. Okay? And if we ever hope to get any competition into a rural territory like Alltel for the residential customers, any large degree of competition in the same time frame that we're going to see it in the urban areas, those rates have to come up. The FCC saw it, the Telecom Act of 1996, the FCC's orders in universal service and local competition and interstate access, access reform all said those implicit support flows are a hindrance to competitive development and they have to go. And there is a much larger degree of support flow as we see by the level of the access charges in the rural areas than there is in the urban areas. But that doesn't change the fact that for competition to develop, those flows have got to go.

Q How would Alltel benefit from reduction in the level of switched access charges in a commensurate revenue-neutral increase in basic local rates?

A In those same documents that I was referring to, the FCC's local competition orders and universal service orders, it is very clear and very plainly laid out that implicit support flows are not sustainable. So eventually those support flows

are going to go away. And the way to correct that, as the FCC correctly pointed out, is to eliminate the implicit support flows. You can do it one of two ways: You can rebalance the rates or you can institute some sort of universal service fund.

Q Okay. Moving on to your Exhibit DCB-0 in Table 1. And you're there with me?

A Yes, I am. I'm sorry.

Q I'm sorry. Is it your testimony that Alltel's residential rates are below what you refer to as average cost?

A Yes.

Q And could you briefly explain what you mean by average cost?

A Average cost means that the, the rate -- well, a rate being equal to average cost means that the rate is covering its direct or long-run incremental cost plus a proportional share of joint common shared costs otherwise known as overhead.

Q So is it accurate to state that your view, since Alltel residential rates are below average costs, other Alltel services are providing support to residential service?

A Yes.

Q And specifically intrastate switched access is one of those services; is that correct?

A That's right.

Q Now, Mr. Blessing, in Table 1 of your, of this exhibit you offer three different estimates of the cost of

local service; is that correct?

A That's right.

Q And you discuss these three cost estimates in your direct testimonies on Pages 11 through approximately Page 19; is that correct?

A I believe that's correct, yes.

Q And is that the only portion of your direct testimony in which you address these three?

A I believe so.

Q Okay. Referring back to Table 1, the first 1R cost estimate of $66.37 is labeled "BCPM 3.1 Defaults"; is that correct?

A That's right.

Q And your footnote indicates this value came from the Commission's final order in Docket Number 980696-TP, the universal service proceeding; is that correct?

A That's right.

Q Do you know when this order was issued?

A A number of years ago, I believe. I don't know the exact date.

Q Subject to check, would you accept January 7th, 1999?

A Yes.

Q Now would you agree with me that in the universal service docket in order to fulfill a statutory mandate the Commission was required to determine and report to the

Legislature the total forward-looking cost of providing basic local telecommunications service at least for Florida, Florida's large ILECs?

A That's right.

Q And in order to satisfy this requirement for the large ILECs didn't this Commission have to choose the appropriate cost proxy model to use to determine the cost of basic local service?

A That would be one step, yes.

Q And in order to compute the cost of basic local service for the three large ILECs using the, using a cost proxy model, didn't the Commission also have to determine the appropriate input values to use in the model?

A That's right.

Q And would you agree with me that the cost proxy models require a substantial number of inputs in order to yield cost results?

A Yes.

Q Mr. Blessing, what is your understanding of the input values that were used in the BCPM 3.1 to arrive at forward-looking cost estimates for Alltel and other small LECs in that proceeding?

A Are you asking me whether they're old?

Q No. I'm asking you what is your understanding of the input values that were used in the BCPM 3.1 to arrive at a

forward-looking cost estimate for Alltel and other small LECs.

A I think they were the default inputs that were in the model.

Q That were used for the large ILECs?

A I'm not sure. I'm not sure.

Q Would you, would you accept, subject to check, that the BCPM 3.1 was run with the Commission-ordered input values?

A Yes.

Q Weren't the Commission-ordered input values for the large ILECs?

A Like I said, I believe they are, yes, but I'm not sure.

Q So these input values may not be completely appropriate for the use of small LECs such as Alltel?

A That's right.

Q And depending on the input, its use may underestimate or overestimate the cost results; is that correct?

A Well, since they're large LEC inputs, I would suspect that if it's going to, it's going to be in error, it would probably understate the cost.

Q Okay. Now turning back to Table 1, the next cost estimate I'd like to discuss is the $41.32 that's labeled "Embedded Cost." To your knowledge does this also come from the Commission's universal service order?

A Yes.

Q And this represents Alltel Florida's embedded costs per line?

A That's right.

Q Has Alltel Florida's number of access lines increased in the past seven or so years since the issuance of that order?

A Well, yes.

Q Do you know whether Alltel Florida's expense and investment levels are the same in 2005 as they were in 1998?

A Well, no. The, the cost, Alltel's costs obviously have changed. And I think as I explain in my testimony, we used the models that were available. Alltel doesn't have a forward-looking model of its own for Florida because no one has come in and requested UNEs and, therefore, there was never any reason to develop one. The only point of this is to show that the $10.49 rate is so far below, and the $16.49 for that matter, so far below what these cost model estimates are that there can be no doubt that it's on the receiving end of some sort of implicit support flow. I believe staff in your prehearing statement, you said there's -- if anything, our estimates are probably conservative. There's probably more support than what we're indicating here. But we used what we had to work with just to illustrate that there's probably no doubt that a support flow exists directed towards residential service.

Q And going down further on Table 1, the third and last

estimate of $48.44 is indicated to be derived using the HAI 5.0a cost model.

A That's right.

Q Could you provide me with a brief description of this model, sir?

A The HAI model was originally developed or sponsored by AT&T for the purpose of developing forward-looking costs. It was used heavily in the FCC universal service docket and it's been used in several state UNE proceedings as well. The version that we used here, HAI 5.0a, was a universal service, was developed for the universal service proceeding at the FCC and contained demographic, geological and other type data that fit Alltel Florida's service territory. In other words, it had, had a block of data that was Alltel Florida specific. So what we did was we used that framework and inserted some Alltel Florida specific data, input data into it where we could and ran the estimate.

Q And did you alter any of the HAI 5.0a default inputs?

A Yes.

Q And -- I'm sorry. And, for example, did you change the cost of capital input?

A Yes.

Q What overall rate of return results from your cost of capital changes?

A I don't know the exact number offhand, but I believe

it was in the 10 percent range.

Q And what is the HAI model's derived overall rate of return using its default cost of capital inputs?

A I don't recall what the default one was.

Q Subject to check, would you say it was also around 10 percent?

A Yes.

Q And you indicate on Page 15 at Lines 9 through 12 of your direct testimony that you also changed the model's default depreciation lives and salvage values for 12 out of the 22 investment categories; is that correct?

A That's right.

Q Do you know the general impact of these changes?

A Generally they probably moved it up slightly, moved the result up slightly.

Q The overall impact of your input changes is an increase of 16 percent over the HAI 5.0a model's default cost of local service of $41.76; is that correct?

A I'll take it subject to check.

Q Subject to check. And does the HAI 5.0a model compute the TELRIC cost of services?

A You can calculate the TELRIC cost of services from the results file of the HAI 5.0a.

Q Mr. Blessing, my colleague is going to hand you an excerpt of the Code of Federal Regulations. Specifically I'm

referring to 47 CFR, subpart 51.505. This is the TELRIC Pricing Rule. If you could please, take a moment and familiarize yourself with the rule.

A I'm familiar with it.

Q And could you please briefly read for me subpart 51.505(b)(1), starting with the "Total element long-run"?

A That's, that's just (b). Do you want me to read (b) or (b)(1)?

Q (B)(1), please.

A Okay. "Efficient network configuration. The total element long-run incremental cost of an element shall be measured based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the existing location of the incumbent LEC's wire centers."

Q Doesn't this require that the TELRIC-compliant cost study must locate a switch where an ILEC currently has a switch?

A Yes.

Q Does Alltel Florida have any tandem switches in its network?

A No. Alltel Florida doesn't have any tandem switches in its network, but it does pay tandem switching costs, and that's why for universal service purposes a tandem switching cost was developed for all carriers, even those that didn't

have tandem switches.

Q And, Mr. Blessing, does the HAI model method require inputs for residential and business dial equipment minutes known as DEM in order to calculate switching costs?

A Yes.

Q What is the vintage of the DEM minutes used in the HAI model run prepared for this proceeding?

A I believe it is mid to late '90s.

Q Subject to check, 1995?

A Yes.

Q Are these DEM inputs Alltel Florida specific?

A They were the default inputs in the model. So, no, I don't believe they are Alltel Florida.

Q Doesn't the HAI model require access line data by wire center to be input?

A Yes.

Q What is the vintage of the access line data used in the HAI model run prepared for this proceeding?

A 1995/1996, that time frame.

Q Does Alltel Florida have more access lines today than it had in 1995/1996?

A I believe so, yes.

Q Holding everything else constant, would using a larger number of access lines yield a lower average cost per line access?

A In general, yes, but it is not going to take the rate down from $48.44 to -- it is not going to take it down to $30, much less 16 or 10.

Q Does the model use ARMIS data to derive expense factors for use in the model?

A The model uses ARMIS data -- now, this is going back, my recollection, the model uses ARMIS data for the large LECs. It also has a small LEC or mid-sized LEC component in it, and I don't believe that that -- I'm not sure whether that is ARMIS data or not.

Q Based on the three cost estimates for residential service that you sponsor, is the Commission to conclude that it is your view that Alltel Florida's average cost of residential service is somewhere in the neighborhood of $41 to $66 per line per month?

A No, I think my personal opinion is that the cost of ALLTEL's local service right now is probably in the $40 range.

Q Would you agree with me, sir, that the three cost estimates represent unseparated costs? In other words, total company cost rather than just the intrastate portion?

A The BCPM and the HAI do. I would have to check to see whether or not the embedded cost has already been separated.

Q Well, isn't the interstate subscriber line charge designed to recover loop costs assigned to the interstate

jurisdiction?

A Yes.

Q And that is approximately how much?

A The SLC charge?

Q The SLC charge.

A For residential customers, $6.50.

Q Mr. Blessing, my colleague is also going to hand you an exhibit that was prepared by us based on the numbers from your Table Number 1, plus data on residential access lines in Ms. Willis' Exhibit BJW-8. The purpose of this exhibit, sir, is to estimate support levels attributable to residential service. Could you please just take a moment of your time and look this over?

A Okay.

Q Looking at this table and based on the cost data that you presented, do you believe these are reasonable support estimates?

A They are rough, rough estimates.

Q And do you think they are reasonable or do you think they need to be adjusted?

A I'm not sure. I can't tell from just looking at these.

Q Am I correct that the amount of support to residential service that Alltel proposes to remove from intrastate access charges is approximately $6 million?

A Yes.

MR. SUSAC: I have no further questions, Mr. Chairman. I would like to ask you that we mark this Exhibit 59, and if there is no objections, we would like to move it into the record.

MR. WAHLEN: No objection.

MR. BECK: No objection.

COMMISSIONER DEASON: It will be identified as Exhibit 59 and shall be admitted.

(Exhibit 59 marked for identification and admitted into the record.)

COMMISSIONER DEASON: Commissioners, questions?

Redirect.

MR. WAHLEN: Mr. Blessing, let's stick with this Exhibit 59 for a minute.

REDIRECT EXAMINATION

BY MR. WAHLEN:

Q What staff has done is taken the studies that we provided and they have made some adjustments and then they have assumed that even if we are off by 25 percent, under any of these models there is still $6 million worth of support flowing from access charges to local. Do you agree with that conclusion?

A Yes. Based on this, yes.

Q Okay. And so whether it is 15 million, or 30

million, or 19 million, it is really not important; there is at least $6 million, is that correct?

A Yes.

Q And you think that Exhibit 59 demonstrates that?

A I think Exhibit 59 is one more piece in the puzzle that indicates that the current rate, residential rate is receiving a significant amount of implicit support from other rates.

Q Great. Commissioner Bradley asked you some questions about what might happen in the rural areas, and you had a discussion about the haves and have nots. Looking at the benefits of competition, do you think that the benefits of competition include new technologies?

A Yes, absolutely.

Q Increased economic activity?

A Yes.

Q Enhanced service offerings?

A Yes.

Q New employment opportunities?

A Yes.

Q Improved customer service?

A Yes.

Q Efficient use of resources?

A Yes.

Q And you think eventually competition pushes the price

of services down in the long run?

A In the long run, the overall price value ratio goes down, yes. In other words, the price may not change, but the value increases and that is just as much of a benefit as if the value stays the same and the price goes down.

Q Let's stick with this have and have nots theme. You are familiar with Alltel's service territory and you know that Alltel serves in Jasper, Florida, is that correct?

A Yes.

Q Do you know that Sprint -- do you know whether Sprint serves immediately adjacent to that in Madison County?

A I believe they do, yes.

Q And you understand that the Commission has approved rebalancing in Madison County?

A Yes.

Q Do you think the likelihood of enhanced market entry in Madison County is greater now that the Commission has approved rebalancing in Madison County?

A Absolutely, yes.

Q And do you think that will bring competition to Madison County?

A I think it will come a lot faster in Madison County than it will to Jasper.

Q But if Jasper gets rate rebalancing, then Jasper has a chance to get the benefits of competition, too?

A Again, absolutely. It is a very simple thing; the higher the price, the more attractive the market is to potential competitors.

Q I think your testimony indicates and some of the questions were about bundles and things like that. Cable companies are beginning to provide telephone service on an incremental basis, isn't that correct?

A That's right.

Q And by that you mean they are already providing cable service and then they are making additional investment so that they can also provide telephone service?

A That's right.

Q Now, if the incremental price of R1 service charged by Alltel increases by $6, do you think it is more likely that a cable company will decide to offer cable telephone service on an incremental basis?

A Absolutely, yes.

Q And if they can price the cable telephone service and the cable service in a bundle in an attractive way, aren't there going to be some cable companies who decide to bring cable service and cable telephone service into -- cable television service and cable telephone service into Alltel's market? Won't that be more likely if the price is increased six bucks for R1?

A It is $6 in additional potential margin, so, yes.

Q I would like you to refer briefly in your testimony to the discussion about the Wyoming rebalancing experience.

MR. BECK: I'm going to object. First of all, it is beyond the scope of the cross-examination; and, second of all, counsel is leading the witness excessively.

MR. WAHLEN: I will stop leading. I apologize.

BY MR. WAHLEN:

Q Let me just ask this question. Commissioner Bradley asked some questions about bringing cable in. Does your testimony provide real world evidence of how rebalancing has brought cable into the rural areas?

A The Wyoming experience demonstrates that by rebalancing, by basically coming up with a more rational rate structure for telephone, they were able to induce a number of cable providers to come into Wyoming and offer service.

MR. WAHLEN: No further questions.

COMMISSIONER DEASON: I have a quick question. For cable companies that choose to provide telephone service, do they derive revenues from access charges?

THE WITNESS: Yes, they can.

COMMISSIONER DEASON: Do they set those charges themselves or is that something the FCC does?

THE WITNESS: No, they set them themselves.

COMMISSIONER DEASON: What constraints are they faced with in determining the maximum amount of excess revenue or

charges that they can assess?

THE WITNESS: They have the same situation as any CLEC, basically, in setting access charges. Generally, there isn't much of a hue and cry about it as long as their access rates are similar to the incumbents. Now, as the access rates have plummeted, especially in interstate rates for the larger carriers under the calls plan that the FCC came up with, a lot of the CLECs kept their access rates higher, and that has led to a lot of complaints from the IXCs. But, to my knowledge, there is no legal requirement that they have to file their rates with the cost support and so on and so forth before any commissions.

COMMISSIONER DEASON: Well, explain to me, then, if there is a cable company that is anticipating providing telephone service in the Alltel service territory and they are looking at what revenue they could derive from providing that service to cover their costs, what difference does it make as to whether they charge that in terms of direct rates to the end use customer versus access revenue they would derive by having that customer on their system?

THE WITNESS: Well, usually for calls originating from their local customers, they are handling -- you know, they don't have an equal access, generally don't have an equal access provision where the customer can say I want you for local but I want AT&T for long distance. Generally, they

handle that themselves. So if there are access charges, they are paying them to themselves. So it is basically being recovered in the rate they are charging the end user.

It is only terminating access that is at issue. And they don't really control where the call comes from, what carrier has the call that is handing it off to them. So they are going to want to recover whatever costs they are incurring plus whatever margin that can --

COMMISSIONER DEASON: Well, I guess my question is this: If someone wanted to go to Alltel, why is it that rate rebalancing is going to entice them? If the cable company is just looking at total revenue and if they match terminating access as to what Alltel is charging, what difference does it make as to whether the local rate is $6 higher and the access is lower or vice versa, if they are going to get the same revenue? And that may be a big if, but making the assumption that there is a wash there.

THE WITNESS: And there may be a wash, but they have to get the customer.

COMMISSIONER DEASON: They have to get the customer.

THE WITNESS: They have to get that local customer before they can even play. And in order to get that customer, it is a lot earlier -- let's put it this way. It is a lot earlier to get that customer when you are competing against a $16.49 rate than it is a $10.49 rate. So I think the induced

entry, enhanced/induced entry comes from the fact that there is now $6 of additional margin that that carrier can get.

COMMISSIONER DEASON: Mr. Wahlen, do you need any further redirect?

MR. WAHLEN: No, sir.

COMMISSIONER DEASON: Mr. Beck, I think you had an exhibit that was identified as 58. Do you wish to move that?

MR. BECK: Yes, please.

COMMISSIONER DEASON: Any objection?

MR. WAHLEN: No objection.

COMMISSIONER DEASON: Show then that Exhibit 58 is admitted.

(Exhibit 58 admitted into the record.)

COMMISSIONER DEASON: Thank you, Mr. Blessing. You may be excused.

MR. WAHLEN: Staff had an Exhibit 59. Has that been moved into the record?

COMMISSIONER DEASON: Yes, we already did. That is in.

MR. WAHLEN: Okay.

COMMISSIONER DEASON: I believe that we are at the point where we can entertain closing argument, is that correct?

MR. WAHLEN: Very well.

COMMISSIONER DEASON: We are going to take ten minutes. Well, first of all, let me ask. (Pause.) We will

take ten minutes and come back and have closing argument.

MR. WAHLEN: Very well. Thank you.

(Recess.)

COMMISSIONER DEASON: Call the hearing back to order.

Mr. Wahlen.

MR. WAHLEN: Thank you, Commissioners. Alltel very much appreciates the time and attention that everyone has given to our proceeding today. We appreciate the questions that were asked. And before we go on, I want to compliment the staff and Public Counsel. We have gone through a lot of information in a very short of period of time in these 90 days, and we couldn't have done it without the cooperation that we got from them. There was very little pushing and shoving, which is helpful to the whole process, and I appreciate that.

Commissioners, the 2003 Act was enacted to address a continuing lack of competition fostered by rate subsidies, and to encourage more competition in the local market. I think the standard that Alltel must meet in this case is that we must show by a preponderance of competent, substantial evidence that the petition should be granted. I think it is important to note that we are the only party that provided testimony. No one else provided any testimony. And we believe that the points we have made in our testimony stand and they support our petition.

I have already talked with you this morning about the

four standards in the statute, and I don't think I need to go over them again except as part of my discussion in a moment. But Mr. Beck is going to remind you that while you are exercising your jurisdiction under Section 364.164, you have to exercise your jurisdiction to ensure that basic local rates are reasonable and affordable. And that is true. The Supreme Court said it is true.

But I would like to remind the Commission that the same part of the statute that imposes that burden on you imposes a burden to encourage competition and promote competition and encourage all providers of telecommunications services to introduce new or experimental services. And there are several other places in that same statute that talk about encouraging competition. So you do have, I believe, a clear mandate from the legislature that encouraging competition is part of your mission. And we just ask you to keep that in mind as we go through the rest of this proceeding.

The first issue in this case is really the first disputed issue. I don't think there is any real question on revenue neutrality, the flow-through. All of those things, I believe, are undisputed. And I think it is clear from the record that there is at least $6 million worth of support here that we are talking about. I believe Staff's Exhibit 59 demonstrates that, and we have agreed to it.

So the first real disputed issue is whether that

support is preventing the creation of a more competitive local exchange telecommunications market. Our testimony says that it is. No one has filed any testimony contrary to that. If you want to have a little more information on that point, it has come out today that we don't have any providers who are using UNEs, we don't have any providers who are using collocation or resale.

So something is working in our territory to keep competition from coming. And we think, and the record in this case shows, that that something is the level of support that is in our access rates that is allowing us to have low local rates, and those low local rates which are priced below cost are what is keeping the market from becoming competitive.

Now, there may be some other factors, but that is a key one, and that is the only one that you can deal with in this rate rebalancing process. If you have any question about this, you can look at your own competition report. It is in the record, the 2004 report. The market share for CLECs for rural companies was three percent in 2004. The market share for BellSouth was 22 percent CLECs, 11 percent CLECs for Verizon, and 8 percent for Sprint.

Something is keeping competitors from coming into the rural areas as quickly as they are the urban areas. And what we are encouraging you to do in this case is increase those local rates by about $6. That will provide some inducement to

bring people into the market, and it will keep, we think, the rural areas like Alltel on par with the larger company areas.

Now, there has been some questions. The next issue is whether this is going to provide any benefit to the rural customers. We have provided the same kinds of evidence that was provided in the big company case. Mr. Blessing testified that rebalancing is going to induce market entry, that there will be more choice, there will be new bundles, there will be new and innovative services, and all of those same things. And his theoretical testimony is supported by the experience in Wyoming where they went from zero percent market share to eight and a half percent market share for CLECs over a period of time, in part because they rebalanced.

And I think it is pretty abundantly clear that if Alltel's territory is rural, Wyoming is really rural. So, we presented you with real world evidence that shows that rebalancing will work in a rural area. And it brought with it in Wyoming new competitors, new services, new bundles, and all of the things that you said would come when you adopted rebalancing for the large companies.

We don't think there is any big difference here for the rural companies. We think it is the same principle and we think it will work in Alltel's territory. And the proof is in the pudding, which is Wyoming.

Now, there was a question about the flow-through of

the access charges and whether that would be any benefit to the consumers. The Supreme Court said and agreed with you that you don't have to look at that. But if you look at it, it is clear that about a third, based on the record here today, of the access charge reduction here is going to end up back in Alltel's territory, and it is not going to get lost in the statewide averaging process. Some will, but there will be a demonstrable benefit in the Alltel territory from the access charge reduction.

Will this induce enhanced market entry? That is the big question. All of the evidence that we have put on shows that it will. We have provided the same theoretical testimony that was provided in the big company case, and we have provided the same empirical studies, and we have provided the experience from Wyoming that you can look at. If there is a question about whether this can work in the rural territories, we think that is answered by what happened in Wyoming.

Now, the fact that Alltel doesn't have any interconnection agreements for unbundled network elements or resale at a wholesale discount or collocation should not bar granting the petition. I don't know if that is what staff is thinking. They have asked a lot of questions about that, but it should not bar granting the petition. We have waived our rural exemption, which means that anybody can now come in and seek unbundled network elements, collocation, and resale at a

wholesale discount, and they don't have to come first to the Public Service Commission and wait 120 days to do it. They can get right to the business of doing that. We have done it in other states. That is what the testimony is, and we don't think there is any problem with that.

We think, in fact, one of the reasons that they haven't done it is because our rates are low. And we believe, and the testimony here today shows that if we go from $10.50 to $6.50 (sic), it is more likely that people will come in and try to compete on an unbundled network element basis.

Now, I think it is important to note that when the first case was done, the Attorney General asked for reconsideration of your order because the federal court entered an order that made the continued viability of unbundled network elements kind of unclear, and that was one of the main points they offered on reconsideration. They said, oh, there is not going to be unbundled network elements anymore, and so all this premise behind this whole case is going to -- you know, it all falls down. Well, your order was clear on that. You said even if the D.C. Circuit's decision remains in place, carriers that compete using their own facilities will be not be affected. And that is the same thing we have here.

Unbundled network elements is just one of the ways that someone can compete in our territory. Whatever method or choice of technology they use, it will be more likely that we

will have more competitors and more services offerings and those things if the price goes up. That is the premise behind the big company case, there is no reason to think that won't work here.

We have put on proof that our rates are similar to the ones that are approved for the big companies. We don't think that is a big dispute. We think it is pretty clear and the best evidence of whether our rates are affordable is what you approved for the big companies' case. That is the market for residential rate in Florida, and what we have done is stayed in that general area.

Now, I would like to make just a couple of more points and then I'm going to close. There has been a suggestion that this just won't work in the rural areas. But I want to remind the Commission and draw your attention to Interrogatory Answer Number 73. We have looked and we have done a study, and our study shows that you have approved rebalancing for approximately 775,000 customers of the large companies who are in areas that are just about as dense, or not dense as the case may be, of Alltel's territory. You may not have been thinking about it specifically when you did the order, but implicitly you have said this will work in the rural areas, and that is all we are asking you to do here. You have done it for the big companies in the rural areas, we don't think there is any real reason not to do it for Alltel.

Now, it has been suggested, but we don't think it has been proved, that granting Alltel's petition will not change the economics of providing residential service sufficient to induce competitors to enter Alltel's market. It has also been suggested, but not proved, that intermodal carriers are going to come into our territory whether or not Alltel's petition is granted. The first suggestion seems to suggest that what we really should be doing is increasing local rates even more. And if we increase rates even more, that's when we are going to bring competitors in.

Well, we are constrained by the same reasonable and affordable standard that you are, and we have done the most we can within the confines of the statute to induce competition. We think it is similar to what the large companies did, and it is going to work in their rural areas and it ought to work in ours.

Now, the other suggestion is, well, it is going to come anyway, so let's not do anything. But the testimony here today has been clear. The easiest place for competition to come is the dense areas of the state. And if competition coming anyway is an excuse for not approving a rebalancing petition, you should have never done it in the urban areas because competition would come anyway.

Well, we don't think that suggestion is true. We don't think you made a mistake in the big company case. We

don't think competition is coming anyway. We think the rebalancing statute was the legislature's prescription for inducing competition in all areas of the state, both the urban and the rural areas. We think you recognized that in the big company case, and now we are going to ask you to recognize that in Alltel's case.

And for all of those reasons, we ask that you grant the petition. The Commission has given us until next Tuesday to file a brief. We intend to file a brief that outlines in more detail what our proof is and how it compares to the big companies. And we think that after the briefs have been reviewed and after you have considered the arguments and the testimony today you should grant the petition. Thank you very much.

COMMISSIONER DEASON: Thank you. Mr. Beck.

MR. BECK: Thank you, Commissioners.

Commissioners, I hate it when opposing counsel tells you what I'm going to say, and it's even more aggravating when he is right. But before we get into the affordable and reasonable rates, I would like to address the issue of whether their petition will create a more competitive local exchange market and whether that will benefit residential customers.

This case is not the case that you heard two years ago. It is not the big company case at all. Alltel has an independent obligation to prove that the granting of the

proposal will make a more competitive market and that customers will benefit in their territory. And the landscape today is vastly different than it was a few years ago. UNEs are not being sought out by competitors. That is not the kind of competition that you see today. It is different. There is no Knologys in this case like there was in the big case.

What Alltel has shown you, I think, goes to disprove their case, that the competitors that they are talking about are VOIP providers and cell phone providers. That is really it. There's a few resellers who resell at the retail rate because there is no discount that Alltel offers for resellers. There already is competition going on for VOIP and cell phone providers, and the granting of this petition won't make any difference whatsoever in that competition.

They are not competing against the R1 rate. The competitors are competing against Alltel's connect unlimited case, and we talked quite a bit about that with Ms. Willis. They charge 54.95 for that. There are certain add-ons if you want to have functional equivalent packages of service that the VOIP providers and the cell phone providers have.

This case will not change Alltel's price that they charge for their competitive service, and you know it is not going to affect at all what the competitors charge because they are set nationally, in any event, so all the competition that is going on between Alltel and the VOIP and the cell phone is

not going to change one iota if you grant this petition. What you are going to do is simply increase the price of residential service for customers.

Now, regarding the flow back in the big companies' case, the access charges, you know, virtually all of the access charges flowed back in some manner to some customers in that case. Probably 99 percent. In this case, they have shown you maybe a third will flow back, if it is that, because one-third of the access charges are paid by Alltel's long distance affiliate, but they served territories greater than Alltel.

So probably less than a third is going to flow back to Alltel's territory, split between business and residential customers. It is vastly different. It means there is going to be very little benefit compared to the burden that is going to be placed on residential and single line business customer. It simply will not flow back to these customers.

We talked briefly with Mr. Blessing about the penetration rates for phone service in Florida, and I think this is something that the Commission must keep in mind in view of the obligation under the statutes to have reasonable and affordable rates. And what we have seen in the last few years is that Florida is falling behind the national average. You know, you would hope that Florida would be exceeding the national average, but, in fact, the 93, we are exactly at it. The most recent data from the FCC shows that we are a full

percentage point behind.

What causes that, I don't know, and the witnesses didn't know either. But it is something I think that ought to be a concern of the Commission that we seem to be falling behind the national average in penetration in telephone rates. Going forward and increasing the residential rates for Alltel's customers by another $6 simply is the wrong step to take at a time when our penetration is falling compared to the national average.

In summation, I mean, basically what you have here is Alltel has not shown a case that it is going to make a more competitive market for the benefit of residential customers. It is simply going to place a burden on residential customers. They are not going to see the benefits that were in the evidence in the other case, and we think you should deny their petition.

COMMISSIONER DEASON: Thank you, Mr. Beck.

Staff, do you have any type of a closing statement?

MR. SUSAC: No, Chairman.

COMMISSIONER DEASON: Okay. I think we have some dates that we can review.

The briefs are due Tuesday, is that correct?

MR. SUSAC: That is correct, Chairman.

COMMISSIONER DEASON: And there is a 15-page limitation on those briefs.

MR. WAHLEN: That is correct.

COMMISSIONER DEASON: And we are set for a special agenda on December 12th, is that correct?

MR. SUSAC: That is also correct.

COMMISSIONER DEASON: Commissioners, anything before we conclude the hearing? Anything final from the parties?

Staff, anything?

MR. SUSAC: Nothing, Chairman.

COMMISSIONER DEASON: Just let me express my appreciation to staff and the parties. It is difficult to process a case in 90 days, and this is a case with some very specific statutory criteria and information that has to be produced, and it seems to have been done efficiently and orderly and professionally, and I want to express appreciation for that.

And if there is nothing else, this hearing is adjourned. Thank you all.

MR. WAHLEN: Thank you.

(The hearing concluded at 1:40 p.m.)

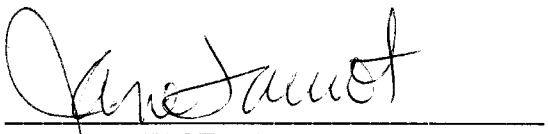
STATE OF FLORIDA)
: CERTIFICATE OF REPORTERS
COUNTY OF LEON)

WE, JANE FAUROT, RPR, and LINDA BOLES, RPR, CRR, Official Commission Reporters, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that we stenographically reported the said proceedings; that the same has been transcribed under our direct supervision; and that this transcript constitutes a true transcription of our notes of said proceedings.

WE FURTHER CERTIFY that we are not a relative, employee, attorney or counsel of any of the parties, nor are we a relative or employee of any of the parties' attorneys or counsel connected with the action, nor are we financially interested in the action.

DATED THIS 2nd DAY OF DECEMBER, 2005.



JANE FAUROT, RPR
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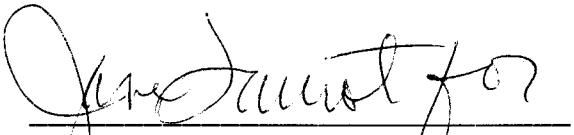

LINDA BOLES, RPR, CRR
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Docket No. 050693-TL Exhibit 1 - Comprehensive Exhibit List – December 1, 2005			
Hearing I.D. #	**Witness**	**I.D. # As Filed**	**Description**
1		Exhibit List- Stip 1	Comprehensive Exhibit List
Staff			
2		Alltel – 1	Alltel's response to Staff's 1st Interrogatories (1-40) Alltel's supplemental response to Staff's 1st Interrogatories(8 and 9) Alltel's response to Staff's 2nd Interrogatories (41-72) Alltel's response to Staff's 3rd Interrogatories (73-92) Alltel's response to Staff's 4th Interrogatories (93-105) (This includes Alltel's revised response to # 96) Alltel's response to Staff's 5th Interrogatories(106-112) Alltel's response to Staff's 1st PODs (1-20) Alltel's response to Staff's 2nd PODs (21-24) Alltel commitment letter.
3		Alltel - 2	Alltel's response and amended response to Citizen's 1st Interrogatories (1-4) (insert Handout)* Alltel's response to Citizen's 1st PODs (1-17) Alltel's response to Citizen's 2nd PODs (18-22)
4		Alltel– Conf. – 1	*******CONFIDENTIAL EXHIBIT******* Alltel's response to Staff's 1st PODs (8,12,15,18,19a, 20c) Alltel's response to Staff's 1st Interrogatories (13b) Alltel's response to Staff's 2nd Interrogatories (65,67, 68) Alltel's response to Staff's 4th Interrogatories (93-105) Alltel's response to Staff's 5th Interrogatories (106-112) Alltel's response to Citizen's 1st PODs (2,3,9,10,13,14,15) Alltel's response to Citizen's 2nd PODs (18,19,20,21)
5	Blessing	Alltel - 3	Deposition Transcript and errata if any, of David C. Blessing
Alltel			
6		Alltel - 4	Public Service Hearing Notices published in local newspapers for Alachua and Live Oak
7	Blessing/Alltel	DCB-0	Composite Exhibit –Tables
8	Blessing/Alltel	DCB-1	FCC Data regarding Telephone Subscribership in the United States through March 2003
9	Blessing/Alltel	DCB-2	FCC Data regarding Telephone Subscribership in the United States through March 2005
10	Blessing/Alltel	DCB-3	Florida Statute 364.164
11	Blessing/Alltel	DCB-4	Non-confidential – Hatfield HAI 5.0a – Default and Alltel-specific model runs plus input changes

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 1
Company/ FPSC Staff
Witness: Exhibit List-Stip 1
Date: 12/01/05

Docket No. 050693-TL Exhibit 1 - Comprehensive Exhibit List – December 1, 2005			
Hearing I.D. #	**Witness**	**I.D. # As Filed**	**Description**
12	Blessing/Alltel	DCB-4	**Confidential** - Hatfield HAI 5.0a – Default and Alltel-specific model runs plus input changes (Document No. 9288-05)
13	Blessing/Alltel	DCB-5	Alltel Florida 2004 embedded cost study
14	Blessing/Alltel	DCB-6	Florida Statute 364.025
15	Blessing/Alltel	DCB-7	FPSC Order regarding the cost of basic local telecommunications service(Docket No. 980696-TP)
16	Blessing/Alltel	DCB-8	Order regarding Alltel's depreciation study. (Docket no. 950887-TL)
17	Blessing/Alltel	DCB-9	Academic Paper: Universal Residential Telephone Service.
18	Blessing/Alltel	DCB-10	Order regarding Verizon, BellSouth, and Sprint in the Large LEC Rebalancing docket. (Docket No. 030961-TI)
19	Blessing/Alltel	DCB-11	Academic Paper: "Are Residential Local Exchange Prices Too Low? Drivers to Competition in the Local Exchange Market and the Impact of Inefficient Prices."
20	Blessing/Alltel	DCB-12	Amended Direct Testimony of Dr. Kenneth Gordon on behalf of Verizon, BellSouth and Sprint in the Large LEC Rebalancing docket.(Docket No. 030961-TI)
21	Blessing/Alltel	DCB-13	Academic paper: "Regulatory Behavior and Competitive Entry."
22	Blessing/Alltel	DCB-14	Article: "Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America,"
23	Blessing/Alltel	DCB-15	Florida PSC Annual Report to the Legislature on the Status of Competition in the Telecommunication Industry in Florida as of May 31, 2004.
24	Blessing/Alltel	DCB-16	Unite Communications Systems website.
25	Blessing/Alltel	DCB-17	Utopia Net website
26	Blessing/Alltel	DCB-18	Grant County (Washington State) Public Utility District Zip fiber network website
27	Blessing/Alltel	DCB-19	Chelan County (Washington State) Public Utility District fiber network website.
28	Blessing/Alltel	DCB-20	Wyoming PSC 2005 Annual telecom Report
29	Blessing/Alltel	DCB-21	Bresnan Communications home page
30	Blessing/Alltel	DCB-22	Contact Communications Hompage
31	Blessing/Alltel	DCB-23	FCC *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service*, table 1.1 July 2005.
32	Blessing/Alltel	DCB-24	US Census Bureau, 2003 Household Income and Expenditures
33	Blessing/Alltel	DCB-25	CPI Data
34	Blessing/Alltel	DCB-26	Cellular Telephone Industry Association Annual Survey Results, Dec 1985-Dec. 2004.
35	Blessing/Alltel	DCB-27	National Cable Television Association data about subscribership
36	Blessing/Alltel	DCB-28	National Cable Television Association data about the average cable bill
37	Blessing/Alltel	DCB-29	"Trends in Telephone Service" – June 30, 2003 data, Table 2.5; FCC
38	Blessing/Alltel	DCB-30	Illinois Universal Service Order determining affordable 1R rate; dated: March 13, 2002.
39	Blessing/Alltel	DCB-31	Wyoming PSC 2000 Annual Telecommunications Report
40	Blessing/Alltel	DCB-32	Florida Statutes 364.10 Lifeline

Docket No. 050693-TL Exhibit 1 - Comprehensive Exhibit List – December 1, 2005			
Hearing I.D. #	**Witness**	**I.D. # As Filed**	**Description**
41	Blessing/Alltel	DCB-33	Academic Paper: "Who Pays for Universal Service?: When Telephone Subsidies Become Transparent."
42	Blessing/Alltel	DCB-34	Florida Statutes Staff and Analysis and Economic Impact Statement of CS/SB 654- the Tele-Competition innovation and Infrastructure Enhancement Act., April 8, 2003.
43	Blessing/Alltel	DCB-35	Verizon Wireless America's Choice Calling Plan for Live Oak, FL.
44	Blessing/Alltel	DCB-36	Article about eBay acquiring Skype dated September 12, 2005.
45	Blessing/Alltel	DCB-37	Cox Communications website discussing offering R1 service.
46	Blessing/Alltel	DCB-38	Time Warner Inc, Form 10-Q Quarterly Report 3/2005 For Period Ending 6/30/2005.
47	Blessing/Alltel	DCB-39	Curriculum Vitae of David C. Blessing
48	Blessing/Alltel	DCB-40	*Local Telephone Competition Status as of June 30, 2004*; Table 13, FCC.
49	Willis/Alltel	BJW-1	Exhibit showing Alltel's current composite intrastate switched access rate of $0.1132294.
50	Willis/Alltel	BJW-2	Exhibit showing Alltel's current composite intrastate switched access rate for the Modified Access Based Compensation rate of $0.1524074
51	Willis/Alltel	BJW-3	Exhibit showing the first annual reduction for Alltel's composite intrastate switched access rate.
52	Willis/Alltel	BJW-4	Exhibit showing the second annual reduction for Alltel's composite intrastate switched access rate.
53	Willis/Alltel	BJW-5	Exhibit showing the third annual reduction for Alltel's composite intrastate switched access rate.
54	Willis/Alltel	BJW-6	Exhibit showing the impact versus the estimated amounts of each access reduction in Alltel's new composite intrastate switched access rate.
55	Willis/Alltel	BJW-7	Exhibit showing the increase in basic local residential, single-line business and associated non-recurring rates in three increments over two years.
56	Willis/Alltel	BJW-8	Exhibit that summarizes the increase in basic local residential, single-line business and associated non-recurring rates in three increments over two years.
57	Willis/Alltel	BJW-9	Confidential Version of Exhibit Nos. 49-56 (Document No. 9287-05)

Docket No. 050693-TL Exhibit 1 - Comprehensive Exhibit List – December 1, 2005			
Hearing I.D. #	**Witness**	**I.D. # As Filed**	**Description**

EXHIBITS

NUMBER:		ID.	ADMTD.
58	Percentage of Households with a Telephone by State (Table-3)	165	206
59	Data from DCB-0 and BJW-8 compiled by staff	199	199

EXHIBIT NO. 2

DOCKET NO.: 050693-TL

WITNESS: Alltel-1

PARTY: Alltel

DESCRIPTION: Alltel's responses to Staff's Interrogatories and Production of Documents(All)

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 2
Company/ FPSC Staff
Witness: Alltel-1
Date: 12/01/05

PROFFERING PARTY: STAFF

I.D. # Alltel-1

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition To Reduce Intrastate Switched Network Access Rates In A Revenue Neutral Manner Pursuant to Section 364.164, Florida Statutes	)	Docket No.: 050693-TL Dated: 10.17.05

ALLTEL'S ANSWERS TO
STAFF'S FIRST SET OF INTERROGATORIES

Pursuant to Rule 25-22.034, Florida Administrative Code and Rule 1.350, Florida Rules of Civil Procedure, Alltel Florida, Inc. ("Alltel"), by and through undersigned counsel, hereby answers Staff's First Set of Interrogatories as set forth below.

1. **Please identify all interconnection agreements entered into by the Company under Section 251(c)(2) of the 1996 Telecommunications Act. Please indicate: the name of the entity; the effective date of the agreement and the expiration date; and the nature of the entity (e.g., CLEC, CMRS provider).**

ANSWER: Refer to list of interconnection agreements embedded electronically in this answer, a paper copy of which is also attached to the hard copy of these answers as Attachment One.


"alltel florida interconnection agree

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

2. **Please identify all resale agreements entered into by the Company under Section 251(c)(4) of the 1996 Telecommunications Act. Please indicate: the name of the entity; the effective date of the agreement and the expiration date; the services covered by the resale agreement and the resale discount; and the nature of the entity (e.g., CLEC, CMRS provider).**

ANSWER: See answer to Interrogatory No. 1, which is incorporated herein by reference.

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

3. Please identify all interconnection agreements entered into by the Company under Section 251(a) or (b) of the 1996 Telecommunications Act. Please indicate: the name of the entity; the effective date of the agreement and the expiration date; and the nature of the entity (e.g., CLEC, CMRS provider).

ANSWER: See answer to Interrogatory No. 1, which is incorporated herein by reference.

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

4. **Please identify all resale agreements entered into by the Company under Section 251(b)(1) of the 1996 Telecommunications Act. Please indicate: the name of the entity; the effective date of the agreement and the expiration date; the services covered by the resale agreement and the resale discount; and the nature of the entity (e.g., CLEC, CMRS provider).**

ANSWER: See answer to Interrogatory No. 1, which is incorporated herein by reference.

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

5. Please identify all agreements entered into by the Company for the provision of unbundled network elements (UNEs) under Section 251(c)(3) of the 1996 Telecommunications Act. Please indicate: the name of the entity; the effective date of the agreement and the expiration date; the UNEs provided and their associated rates; and the nature of the entity (e.g., CLEC, CMRS provider).

ANSWER: See answer to Interrogatory No. 1, which is incorporated herein by reference.

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

6. Please identify all agreements entered into by the Company for the provision of collocation under Section 251(c)(6) of the 1996 Telecommunications Act. Please indicate: the name of the entity; the effective date of the agreement and the expiration date; and the nature of the entity (e.g., CLEC, CMRS provider).

ANSWER: See answer to Interrogatory No. 1, which is incorporated herein by reference.

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

7. To the extent not identified in response to Interrogatory No. 6, please identify all agreements entered into by the Company for the provision of collocation. Please indicate: the name of the entity; the effective date of the agreement and the expiration date; and the nature of the entity (e.g., CLEC, CMRS provider).

ANSWER: See answer to Interrogatory No. 1, which is incorporated herein by reference.

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

8. To the extent not identified in response to Interrogatories 1-7, please identify all CLECs known to be providing service to residential customers in the Company's Florida service area.

ANSWER: See answer to Interrogatory No. 1, which is incorporated herein by reference.

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

9. To the extent not identified in response to Interrogatories 1-7, please identify all CLECs known to be providing service to business customers in the Company's Florida service area.

ANSWER: See answer to Interrogatory No. 1, which is incorporated herein by reference.

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

10. Please identify the number of resold lines provided to CLECs pursuant to Section 251(c)(4) in the Company' Florida service area.

ANSWER:

At the present time, Alltel Florida provides no resold lines to CLECs pursuant to Section 251(c)(4).

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

11. Please identify the number of resold lines provided to CLECs pursuant to Section 251(b)(1) in the Company's Florida service area.

ANSWER: At the present time, Alltel Florida provides 763 resold lines to CLECs pursuant to Section 251(b)(1).

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

12. Please identify the number of UNE loops provide to CLECs pursuant to Section 251(c)(3) in the Company's Florida service area.

ANSWER: At the present time, Alltel Florida provides no UNE loops to CLECs pursuant to Section 251(c)(3).

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

13. (a) Has the Company received a bona fide request (BFR) for interconnection, services or network elements pursuant to Section 251(c)?

(b) If the response to (a) is affirmative, please identify: the entities submitting the BFRs; when the BFRs were submitted; and the resolution of the BFR.

ANSWER:

(a) Yes.

(b) The requested information is proprietary Confidential Business Information. A schedule reflecting the requested information is included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's First Notice of Intent to Request Confidential Classification. The file is named: Staff First IRR, No. 13(b).

Bettye Willis
Alltel Communications
One Allied Drive
Little Rock, AR 72202
Employee

14. For purposes of the following request, please refer to ALLTEL's Petition, page 5, lines 1-3. Should this sentence instead read " . . . remove approximately $6 million in implicit support from Alltel's intrastate switched access rates"? Please clarify.

ANSWER: Yes. Alltel's intrastate access rates provide support for basic local service, not the other way around.

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15. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Willis, page 7, lines 1-4.

(a) Will the additional Lifeline credit to offset the residential rate increases be permanent?

(b) If the response to (a) is negative, please indicate the duration of additional Lifeline credit.

(c) By way of clarification, will the additional Lifeline credit apply to both current and new Lifeline subscribers?

ANSWER:

(a) At the end of the rebalancing period, Alltel will evaluate whether or not to make the Lifeline Credit offset the rate increases permanent.

(b) See response to (a).

(c) The credit will apply to any Lifeline subscriber existing at the time the additional credits are applied.

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16. Please identify the number of residential access lines in service as of year-end 2000 through 2004.

ANSWER:

2000	2001	2002	2003	2004
72,931	75,272	75,168	74,693	73,653

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17. Please identify the number of single-line business access lines in service as of year-end 2000 through 2004.

ANSWER:

2000	2001	2002	2003	2004
8,892	9,211	8,234	8,188	8,268

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18. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Willis, page 13, lines 22-23. By way of clarification, does ALLTEL propose to increase rates for single-line business while holding constant rates for additional business lines, this implementing an initial and additional business lien rate structure? If this is not the case, please clarify ALLTEL's business line pricing proposal.

ANSWER:

No. Alltel plans to charge the same rate for a single-line business line regardless of whether it is the first line or second or third line.

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19. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Willis, page 11, lines 1-3. Please explain what gave rise to the disparity between the intrastate interLATA switched access interconnection charge and the MABC interconnection charge.

ANSWER:

MABC interconnection charges were set by the Florida Public Service Commission pursuant to Order No. 17743 in docket No. 850310-TL. In October 1996, the residual interconnection charge for MABC was increased from $0.008313 to $0.0218 and the intrastate interLATA went from $0.008313 to $0.005262. In October 1997, the intrastate interLATA decreased to $0.002211 with no changes to the MABC. This is the only rate element that is different between MABC and intrastate interLATA.

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20. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 4, lines 11-13. Please identify all cost studies prepared by or for the Company which indicate the cost of ALLTEL-provided intrastate switched access.

ANSWER:

The Company prepared the HAI 5.0a cost proxy model cost study with input adjustments specific to Alltel-Florida which indicated the cost of ALLTEL-provided intrastate switched access. The results of the HAI 5.0a cost study can be found in Exhibit No. ___ (DCB-4) attached to the Direct Testimony of David C. Blessing. The HAI 5.0a model produced a cost of $0.03243 for the cost of Alltel-provided intrastate switched access.

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21. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 5, lines 20-24. Please identify "the state-wide average for such services."

ANSWER:

The phrase "state-wide average for such services" refers generally to the 1R rates that the FPSC approved for BellSouth, Verizon, and Sprint in the Large LEC Rate Rebalancing docket. The rates are shown in Blessing Exhibit No. ___ (DCB-0), Table 7 attached to the Direct Testimony of David C. Blessing. The table is repeated here as follows:

Table 7

COMPARISON OF REBALANCED LOCAL RATES

	Verizon	BellSouth	Sprint	ALLTEL
Former Rates				
Lowest	$ 9.72	$ 7.57	$ 7.63	$9.64
Highest	$ 12.06	$ 11.04	$ 11.48	$12.67
Average	$ 10.89	$ 9.31	$ 9.56	$10.49
Rate Increase	$ 4.73	$ 3.86	$ 6.86	$6.00
New Rates				
Lowest	$ 14.45	$ 11.43	$ 14.49	$15.64
Highest	$ 16.79	$ 14.90	$ 18.34	$18.67
Average	$ 15.62	$ 13.17	$ 16.42	$16.49

Alltel's average proposed rate of $16.49 places it within the range of rates approved by the FPSC for the large ILECs.

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22. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 8, lines 9-12.

(a) Please identify the wireline providers that compete with ALLTEL in its service territory for toll and local service.

(b) Please identify the VoIP providers that compete with ALLTEL in its service territory for toll and local service.

(c) Please identify the cable TV providers that compete with ALLTEL in its service territory for toll and local service.

(d) Has ALLTEL lost local service customers to other wireline providers?

(e) If the response to (d) is affirmative, please indicate how many local customers have been lost.

(f) Has ALLTEL lost local service customers to VoIP providers?

(g) If the response to (f) is affirmative, please indicate how many local customers have been lost.

(h) Has ALLTEL lost local service customers to cable TV providers?

(i) If the response to (h) is affirmative, please indicate how many local customers have been lost.

ANSWER:

(a) In the Alltel Corporation wireline service area, carriers such as Brandenburg Telephone (Kentucky), Time Warner Cable and Comcast cable offer competing local and toll services. Additionally, CLECs such as Actel Wireless, Belleruid, Cat Communications, Coastal Telephone Connections, Flatel, Global Connection, Met Communications, Ring Connection, Source One Communication, and Universal Telecom all provide toll and local service in Alltel Florida's service territory.

(b) Alltel competes with universal VoIP providers such as Vonage and Skype for toll and local service, but also Time Warner Cable, Comcast Cable, Charter Cable, Southern Cable, Communicon Cable, Cox Communications, Medicon, and ComSouth offer service or have plans to offer service in various areas of the Alltel Corporation wireline service area, including some Alltel Florida exchanges.

(c) Time Warner Cable, Comcast Cable, Charter Cable, Southern Cable, Communicon Cable, Cox Communications, Medicon and ComSouth either already offer voice services in various areas throughout the Alltel Corporation wireline service area, or have the capability to offer voice services including in Alltel Florida exchanges Alachua, Callahan, High Springs, Hilliard, Interlachen and Live Oak.

(d) Yes. Companies such as Southeast Telephone and Brandenburg Telephone in Kentucky compete directly with Alltel companies for local and toll service. CLEC resellers Actel, Flatel, Ring Connection, Cat Communications, Source One Communication, Universal Telecom, MET Communications, Coastal Telephone Connections, and Global Connections offer resold services in Alltel Florida territory.

(e) Since January 2004, approximately 108,000 local service customers have disconnected service throughout the Alltel Corporation wireline service areas for such reasons as moving service to a reseller or other voice provider or customer going to wireless only. Approximately 2,200 Alltel Florida local customers have disconnected service for the above reasons. A two page schedule showing Alltel's analysis of disconnects is being produced in response to Staff's First Request for Production of Documents, No. 12, and is incorporated into this answer by reference. This schedule is included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's First Notice of Intent to Request Confidential Classification. The file is named Staff First RPD, No. 12 (disconnects).

(f) Yes.

(g) See response to (e).

(h) See response to (d).

(i) See response to (e).

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23. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 8, lines 12-15. Please indicate for which services ALLTEL reduced prices due to competitive pressures.

ANSWER:

Alltel Florida offers multiple packages and bundles of services, as well as various long distance service offerings in order to give its customers competitive choices. Alltel offers several custom calling feature packages at prices that are discounted from the price of the features if purchased individually, tariff sheets for which are included with these answers at Attachment Two. Alltel also offers residential customers the "Connect Unlimited Bundle" for $54.95 a month. This service includes the residential line, a feature package which includes Caller ID, Call Waiting, Caller ID on Call Waiting and Call Return bundled with Protection Plus and an unlimited long distance calling plan offered by Alltel Florida's long distance affiliate. Priced separately, these services would be significantly higher than the bundled price. Additionally, through its long distance affiliate Alltel offers a "Dime All of the Time" calling plan which is $0.10 per minute for any call placed within the state of Florida. At various times Alltel offers promotional discounts for customers who subscribe to its DSL service.

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24. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 12, lines 4-8.

(a) When was the study using HAI 5.0a prepared?

(b) Please identify who prepared the cost study.

(c) Referring to footnote 7, are the data contained in the HAI 5.0a ALLTEL Florida-specific?

(d) If the response to (c) is affirmative, please identify what ALLTEL Florida-specific data are being referred to in footnote 7.

(e) How did ALLTEL obtain access to HAI 5.0a?

(f) Referring to footnote 7, has ALLTEL estimated a forward-looking model for any of its service territories?

(g) If the response to (f) is affirmative, please identify for which service territories a model has been estimated and briefly describe the model.

(h) Referring to footnote 7, to what 2004 cost study is reference made?

ANSWER:

(a) September 12, 2005

(b) The study was done under the direction and supervision of David Blessing by Kris Carson, Senior Consultant at Parrish, Blessing and Associates, Inc.

(c) Yes, some of the data is ALLTEL-specific and some of the data are the default inputs found in the Hatfield model.

(d) The Alltel Florida company specific data that is referred to in footnote 7 is Identified in the Direct Testimony of David C. Blessing page 14 line 19 through page 16 line 10. In addition, the Alltel Florida specific data that was used in the HAI 5.0a is identified in Exhibit No. __ (DCB-4), pages 72-74. A complete list of all inputs (both the Alltel Florida company specific and the default HAI inputs) are identified in Exhibit No. __ (DCB-4), pages 75-94.

(e) Parish, Blessing and Associates provided a copy of the HAI 5.0a model to be used in this proceeding.

(f) Yes.

(g) Alltel has estimated forward-looking UNE and collocation costs for its service territories in Kentucky, Nebraska, Ohio, and New York-Jamestown. Forward-looks costs were estimated for reciprocal compensation rates in Pennsylvania. The Alltel model develops a forward-looking network design based on current wire center locations and forecasted demand. Model upgrades feeder facilities to fiber, determines DLC requirements, and optimizes distribution facilities. The forward-looking network investment is then determined using current material prices and estimated engineering and installation costs. The model then develops

(h) forward-looking costs for the network and allocates those costs over forecasted demand for each unbundled network element.

(i) Please see the 2004 Embedded Cost Study provided as Exhibit No. __ (DCB-5).

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25. **Referring to Exhibit DCB-0, Table 1, is the Hatfield 5.0a cost an unseparated cost?**

(a) If the response to (a) is affirmative, please explain why the subscriber line charge was not reflected in this table.

(b) Referring to Exhibit DCB-0, Table 1, is the BCPM 3.1 cost an unseparated cost?

(c) If the response to (c) is affirmative, please explain why the subscriber line charge was not reflected in this table.

ANSWER:

(a) Yes.

(b) The SLC was not subtracted from the cost output of the HAI 5.0a cost model because the SLC was not subtracted from the BCPM cost study default output shown in FPSC Docket No. 980696-TP, Order No. PSC-99-0068-FOF-TP. This allows for an apples-to-apples comparison with the FPSC-approved embedded cost study estimate of $41.32 and the BCPM cost study estimate of $66.37 as those numbers were presented in Order No. PSC-99-0068-FOF-TP. If the federal subscriber line charge of $6.50 was subtracted from the HAI 5.0a cost estimate of $48.44 to show a total state revenue requirement, the total would be $41.94. If the federal subscriber line charge of $6.50 was subtracted from the BCPM cost estimate of $66.37 to show a total state revenue requirement, the total would be $59.87.

(c) Yes.

(d) Please see the response to 2(b), above.

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26. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 12, lines 15-18. Please describe the network architecture assumed by HAI 5.0a as it relates to the provision of switched access, in comparison to ALLTEL Florida's actual network architecture.**

ANSWER:

The HAI 5.0a cost proxy model assumes the traditional telephony network architecture of tandem switching and end office switching for the provisioning of switched access services. It should be note that the HAI 5.0a cost proxy model is a forward-looking cost model and does not use the incumbent's existing network but designs a more efficient network.

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27. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 14, line 20-25 through page 15, lines 1-2.**

(a) Are the items listed herein the only HAI 5.0a inputs that the Company altered?

(b) If the response to (a) is not affirmative, please enumerate all inputs which were altered.

(c) For each input that was altered, please identify specifically where in Exhibit DCB-4 the input can be found.

ANSWER:

(a) The direct testimony of ALLTEL witness Blessing, page 14 line 19 through page 16 line 10 identify all the HAI 5.0a inputs that were altered.

(b) The ALLTEL Florida company specific inputs can be located in Exhibit No. __ (DCB-4), pages 72 – 74. In addition, a complete list of all inputs (both ALLTEL Florida company specific and HAI 5.0a default) can be found on Exhibit No. ___ (DCB-4), pages 75 – 94.

(c) See answer to 27(c)

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28. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 15, lines 8-9. Please identify the rate of return in the HAI 5.0a model that results from the model default inputs.**

ANSWER:

The model default inputs produced a 10.01% rate of return.

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29. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 15, lines 15-18. Please identify the source for the NID inputs.**

ANSWER:

Please refer to the confidential file named "Staff First RPF, No. 15," produced on a confidential CD in response to Staff's First RPD, No. 15, which is incorporated in this answer by reference. The NID inputs are from the model which Alltel uses to develop forward-looking costs. Material costs are based on the items required for a typical NID installation and the current Alltel Communications Products prices for those items. Installation labor is based on an estimated one half hour per installation times the average Alltel loaded labor costs for a communications technician. The one half hour installation time is the standard contained in Alltel's Work Order Management system (WOMS). WOMS is an engineering tool used to develop estimated work order and capital budget costs.

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30. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 15, lines 18-23.**

(a) Please identify the size increments for Calix DLC equipment.

(b) Was it necessary to alter any of the sizing algorithms in the HAI model due to assuming the use of Calix DLC equipment?

(c) If the response to (b) is negative, please explain why not and indicate for what size increments Calix inputs were used.

(d) **Please identify the source for the DLC investment amounts used in the model.**

ANSWER:

(a) Size increments for the Calix DLC equipment are 120 lines, 480 lines, 960 lines, and 1920 lines.

(b) No.

(c) Alltel used the following described procedure to arrive at the Calix DLC material investment amount in the HAI model. This procedure consisted of two steps. First, the Alltel Florida cluster information from the HAI 5.0a model was extracted into a separate worksheet, where Calix sizing criteria was used to determine the size and number of Calix DLC units required. Each DLC was then equipped with line cards and ancillary equipment using a 90% fill rate (the HAI model default). Algorithms in this spreadsheet developed the DLC investment amount based on the Calix equipment required for each cluster and current vendor prices. Second step was to determine the difference between the HAI default DLC investment value and the total Calix DLC equipment investment. This difference of $661,000 was divided by the number of "Low Density DLC Basic Common Equpt Invest + initial lines" elements (327) from the default results. The resulting $2,020 was added to the $16,000 HAI model cost for this component. When the HAI model was re-calculated, it produced a DLC investment amount very close to the total for the Calix equipment requirement.

(d) The DLC investment amounts used in the model were calculated using algorithms and default values existing in the model. Alltel changed one input line as explained in response 30(c).

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31. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 16, lines 1-7. Please identify where in Exhibit DCB-4 each of these changes are located.**

ANSWER:

The changes are located in Exhibit No. ___ (DCB-4), pages 72-74 as well as Exhibit No. ___ (DCB-4), pages 75-94.

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32. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 16, line 25 through page 17, lines 1-2. Please identify the basis for the assertion that ALLTEL's intrastate switched access rate is priced above average cost.**

ANSWER:

The basis for the assertion that ALLTEL's intrastate switched access rate is priced above average cost is the HAI 5.0a cost model estimates the cost of ALLTEL's intrastate switched access to be $0.03243 while the average price of ALLTEL's intrastate switched access is $ 0.1132294. The Hatfield HAI 5.0a cost model calculates the TELRIC cost of services which includes an allocation or contribution toward the recovery of joint and common costs or administrative overhead which approximates the average cost of a service. Conversely, the Hatfield HAI 5.0a cost model calculates the TELRIC cost (which includes an allocation or contribution toward the recovery of joint and common costs or administrative overhead) of 1R local service as $48.44 while the current average price of ALLTEL's 1R service is only $10.49, far below its cost.

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33. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 20, lines 10-13. Other than the incumbent's pricing, what are other key factors that govern a competitor's entry decision?

ANSWER:

There are numerous factors that may influence a competitor's decision to enter any given market and the factors vary significantly between different competitors with their unique business plans, and they simply cannot all be listed here. For example, who could have foreseen carriers such as Skype (which was recently sold to eBay for $2 billion) that use Point to Point ("P2P") file-sharing technology to create a seamless voice communications service over a 33.6kbps dial-up internet line? However, one key factor that all new competitors will consider before entering a new market is the market price of local service (generally, the ILEC's price). Generally speaking, if the competitor's cost of providing local service is less than the market price of local service, the competitor will be given an incentive to enter the market.

The following list includes, but is not inclusive of, other factors besides the LEC's price of local service that influence a competitor's decision to enter a market:

1. The potential competitor's cost of providing service, which can include,

    a. The existence of a competitor's own facilities in the ILEC's territory that can be used to provision competing voice telephone services (cable TV facilities, electrical power lines, gas lines for conduit for running fiber, other right-of-way, wireless facilities

b. The existence of existing broadband facilities (cable TV or DSL) that a VOIP provider could use,

c. The existence of wireless broadband facilities that a VoIP provider could use,

d. The availability of UNE facilities for those CLECs that are still seeking to purchase UNEs.

e. The competitor's cost of capital which it will use to expand into the LEC's territory.

f. The competitor's proprietary technology/network design that may give it a cost advantage when compared to simply replicating a traditional wireline LEC network (e.g., Skype's P2P technology, Vonage's VoIP technology, etc.).

g. The proximity of installation and repair personnel, if such are required, to the new service area.

2. Market Research and customer demographics

a. Information regarding whether the new territory's customer base will be accepting of or able to use your voice communications product (e.g., for Skype - does the customer own a computer, have internet access, and do they have the ability to download a free copy of Skype's proprietary P2P software?)

b. Information regarding whether the new territory's customer base is willing to switch local service providers.

c. Information regarding whether the new territory's customer base is willing to switch local service providers.

3. Location-Specific Support - Does the new competitor have the necessary personnel infrastructure located close to the new service territory? Including installation and tepair personnel to install and maintain the new local network (to the extent that physical facilities need to be built),

4. Corporate Back Office Support - Does the new competitor have the necessary corporate back office resources to expand into a new territory? Including –

a. legal and regulatory personnel to negotiate interconnection agreements for the exchange of local traffic and termination of toll and wireless traffic, as well as handle customer complaints;

b. engineers and operations personnel to design and build the new local network (to the extent that physical facilities need to be built) plus lease and provision needed network pieces (loops, transport, etc.) from other providers;

c. marketing personnel to develop and direct marketing campaigns for the new service territory;

d. billing personnel to modify billing systems to bill for a new region;

e. accounting personnel to handle revenues and expenses for the new region; and

f. customer service representatives to handle the new influx of orders in the new region as well as other customer care issues.

As discussed in the Direct Testimony of David C. Blessing, artificially low local residential service prices, such as Alltel's average rate of only $10.49, discourage potential competitors from entering Alltel's residential market. Potential competitors look at the prevailing market price, their own costs of providing the service and the resulting profit margins as key factors in making a determination as to whether they will enter a particular market. If the market price of residential local service is less than the potential competitor's anticipated costs, the potential competitor will not view residential service as a potentially profitable venture and therefore will not enter that market.

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34. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 24, lines 18-19. What are other factors inhibit the development of competition for local residential service?**

ANSWER:

To the extent that any of the cost factors described in the response to question number 33 above cause the competitor's cost of service to exceed the market price or, that the other factors discussed in the response to question number 33 above would prevent general acceptance of the competitor's alternative local phone service, those factors would inhibit the development of competitor for local residential service.

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35. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 25, lines 2-4.**

(a) Is price the only "regulatory distortion"?

(b) If the response to (a) is negative, please identify other "regulatory distortions."

(c) To the extent not identified in response to (b), is the existence of the section 251(f)(1) rural exemption a regulatory distortion?

(d) If the response to (c) is negative, please explain why not.

ANSWER:

(a) No.

(b) Any regulation that impacts the provisioning of local telephone service within the State of Florida has the potential to be a regulatory distortion.

(c) Theoretically, yes, but Alltel does not believe that Section 251(f)(1) is a material distortion in its service territory. It should be noted that the type of CLEC competitors that are successful in today's market are self-provisioning their own facilities and do not rely on the UNE-leasing capabilities that might be impacted by section 251(f)(1). For example, cable TV companies such as Time Warner, GCI, Comcast, and Cox do not lease UNEs from the LECs and are some of the most successful competitors in the residential local telephone market. Likewise, VoIP and other internet-based providers such as Skype, are making in-roads into the residential local telephone market and do not rely on leasing UNEs from LECs. Wireless service is increasingly being substituted for residential local phone service and is becoming a strong competitor for wireline voice telephony. Most wireless carriers do not rely on the UNE-leasing capabilities that might be impacted by section 251(f)(1). Finally, the FCC continues to limit and restrict the ability of CLECs to lease certain UNEs or UNE combinations in any location (urban or rural) further reducing the CLECs' reliance upon UNEs in general.

(d) Alltel does not believe that the exemption in 251(f)(1) is a material regulatory distortion in its Florida service territory. First, consistent with Florida's strong public policy in favor of encouraging competition, competition was allowed into Alltel's territory by operation of Section 364.052, Florida Statutes, when Alltel elected price regulation, and whether a small LEC that has elected price regulation could sustain the federal rural exemption in light of Section 364.052, Florida Statutes, is questionable. Second, Alltel Florida does not assert a 251(f)(1) exemption to prevent competitors from entering Alltel's market and, in fact, Alltel has entered into a variety of agreements with competitors or potential competitors (over 40) as shown in its answer to Interrogatory No. 1, above. Third, under Section 251(f)(1), a competitor who seeks to terminate the rural exemption is required under Section 251(f)(1) to petition the state commission for an order terminating the exemption. To Alltel's knowledge, none of the competitors or potential competitors with whom Alltel has entered agreements has ever deemed it necessary to file their bona fide request for an agreement with the FPSC or to request that the FPSC terminate the 251(f)(1) exemption because, again, the exemption is not utilized by Alltel Florida. The fact that over 40 companies have entered into agreements with Alltel and none of them have felt the need to seek action from the FPSC formally addressing 251(f)(1) shows that competitors and potential competitors are not deterred or constrained by 251(f)(1) in Alltel's territory and that Section 251(f)(1) is not a material regulatory distortion therein. Finally, to the extent the Commission is concerned about Section 251(f)(1), if the Commission approves Alltel's rebalancing plan in this docket, Alltel would consent to language in the final order formally terminating whatever rights Alltel has under Section 251(f)(1).

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36. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 28, lines 6-8.**

(a) By way of clarification, is it meant that ALLTEL offers DSL service in all of its exchanges except Hastings?

(b) If the response to (a) is negative, please clarify what is meant.

(c) Do any providers other than ALLTEL offer DSL service in any of ALLTEL's exchanges?

(d) If the response to (c) is affirmation, please identify which competitive providers serve which ALLTEL exchanges.

ANSWER:

(a) Yes.

(b) N/A

(c) No.

(d) N/A

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37. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 28, footnote 24.**

(a) Will ALLTEL currently offer "naked DSL"?

(b) If the response to (a) is negative, does ALLTEL have any plans to offer naked DSL in the future?

(c) In ALLTEL's territory, does "the local cable TV provider" offer broadband services?

(d) If the response to (c) is affirmative, please identify, by exchange, which cable TV provider offers broadband service.

ANSWER:

(a) Not at this time.

(b) Alltel is exploring the feasibility of Naked DSL.

(c) Yes, in some exchanges.

(d)

Alachua	Communicon, Cox Communications
Branford	Communicon
Callahan	Comcast
High Springs	Communicon
Hilliard	Comcast
Interlachen	Time Warner
Live Oak	Time Warner
McIntosh	Galaxy Cable
Melrose	Time Warner
Orange Springs	PDQ

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38. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 31, lines 11-13. Please identify which of these entities are competing in ALLTEL's local telecommunications market.**

ANSWER:

CLECs (resellers), wireless carriers, VoIP providers and cable telephone providers all provide competing services in Alltel local telecommunications market. CLECs such as Actel Wireless, Belleruid, Cat Communications, Coastal Telephone Connections, Flatel, Global Connection, Met Communications, Ring Connection, Source One Communication, and Universal Telecom all provide service in Alltel Florida's service territory. Alltel Communications (wireless), Cingular and Sprint-Nextel are some of the wireless providers serving Alltel's local market. VoIP providers Vonage and Skype are universal providers whose services are generally available in most areas and in some cases can be purchased from retail outlets such as Best Buy and Circuit City stores.

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39. **For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 34, lines 18-21.**

(a) Do any of Wyoming's rural LECs still operate under the section 251(f)(1) rural exemption?

(b) If the response to (a) is affirmative, please identify which still do and which do not.

ANSWER:

(a) Alltel does not know.

(b) N/A.

David C. Blessing
10905 Fort Washington Road, No. 307
Fort Washington, MD 20744
Consultant

40. **For purposes of the following request, please refer to Exhibit DCB-4.**

(a) **Referring to page 1, what is the vintage of the Lines data?**

(b) **On, e.g., pages 2 through 8 the header is "Investment Input." Aren't these amounts actually the results of intermediate calculations? Please explain.**

(c) **Referring to page 9, please explain to what "prop" refers in the headers.**

(d) **Referring to page 10, what is the vintage of the total residential annual DEMs, and what is their source?**

(e) **Referring to page 10, what is the vintage of the total business annual DEMs, and what is their source?**

(f) **Referring to page 10, Total Trunks, does this represent the total number of trunks "engineered" by the model?**

(g) **If the response to (f) is negative, please explain to what Total Trunks refers.**

(h) **Results are shown on page 17 for Tandem Switching Direct Cost. Does ALLTEL operate any tandems?**

(i) **If the response to (h) is affirmative, please indicate which switches are tandems.**

(j) **If the response (h) is negative, please explain why the costs of tandem switches are included in the analysis.**

(k) **On page 22 values for Distribution Unit Cost are shown. Please explain what these values represent, their source, and how they are computed.**

(l) **Referring to page 54, excluding the cost of capital inputs, are all of these inputs the HAI defaults?**

(m) **If the response to (l) is negative, please identify which inputs are not HAI defaults, and identify their vintage and source.**

(n) **Referring to page 56, Calculation of EO usage, please identify the source and vintage of the inputs.**

(o) **Referring to pages 60 through 65, is the ARMIS data shown of 1995 vintage?**

(p) **If the response to (o) is affirmative, why weren't these data updated?**

(q) **If the response to (o) is negative, please identify the vintage of the ARMIS data.**

(r) **Referring to pages 66 through 69, is the data shown 1996 actuals?**

(s) **If the response to (r) is affirmative, why weren't these data updated?**

(t) **If the response to (r) is negative, please identify the vintage and source of these data.**

(u) **Referring to pages 69 and 70, is the data shown circa 1996?**

(v) **If the response to (u) is affirmative, why weren't these data updated?**

(w) **If the response to (u) is negative, please identify the vintage and source of these data.**

(x) **(deleted per discussion with staff counsel)**

ANSWER:

(a) The vintage of the line data is the 1995-1996 default data within the HAI 5.0a model.

(b) These amounts are the results of the investment development produced by the HAI 5.0a model.

(c) "Prop" refers to "proposed."

(d) The vintage of the DEM data is 1995-1996, the source is ARMIS data for those companies who report ARMIS. For those companies who don't report ARMIS data the proxy data is used. ALLTEL Florida doesn't report ARMIS so the data used herein is a proxy.

(e) See answer to 40(d).

(f) Yes, these would be the proposed number of trunks developed by the HAI 5.0a model.

(g) N/A

(h) No.

(i) N/A

(j) Tandem costs are estimated because even if there are no tandems the company will still pay tandem switching costs. In other words, even though ALLTEL Florida doesn't have a tandem those functions performed by the tandem are still required, hence there are costs associated with the tandem switching function estimated by the model.

(k) The Distribution Unit Cost represents the distribution component of the loop designed by the HAI 5.0a model. It is a function of the distribution investment and the demand. The investment is developed using the inputs contained herein the model.

(l) Yes.

(m) N/A

(n) See answer to 40(d).

(o) Yes, the ARMIS proxy data shown herein is vintage 1995-1996.

(p) The Hatfield version 5.0a cost proxy model is the most current publicly available version of the model that provides data on ALLTEL Florida and contains ARMIS data from 1995 – 1995. The Hatfield model was designed to use proxy data for many of its inputs. The Hatfield model also contains a user-input section that allows users to change select data inputs to customize the report to their LECs. The user-allowable changes are shown in Exhibit DCB-04 and discussed in ALLTEL's responses to question 24(d).

(q) N/A

(r) Yes, the proxy data shown herein is vintage 1995-1996.

(s) Please see the response to answer 40(p) above.

(t) N/A

(u) Yes, the proxy data shown herein is vintage 1995-1996.

(v) Please see the response to answer 40(p) above.

(w) N/A

(x) No answer required per staff counsel.

David C. Blessing
10905 Fort Washington Road, No. 307
Fort Washington, MD 20744
Consultant

AFFIDAVIT

STATE OF ARKANSAS
COUNTY OF GULASKI

BEFORE ME, the undersigned authority, personally appeared BETTYE WILLIS, who deposed and said that she is employed by Alltel as Staff Manager – External Affairs and that ALLTEL Florida, Inc.'s answers to Staff's First Set of Interrogatories attributed to her are true and correct to the best of her information and belief.

DATED this ____ day of October, 2005.

_____

BETTYE WILLIS

The foregoing instrument was acknowledged before me this ____ day of October, 2005, by BETTYE WILLIS, who is personally known to me.

_____
Notary

_____
printed name

_____
Title, Rank, Serial No., etc.

My Commission Expires:

AFFIDAVIT

STATE OF ARKANSAS
COUNTY OF GULASKI

BEFORE ME, the undersigned authority, personally appeared TOM RIGOR, who deposed and said that he is employed by Alltel as _____and that ALLTEL Florida, Inc.'s answers to Staff's First Set of Interrogatories attributed to him are true and correct to the best of his information and belief.

DATED this ____ day of October, 2005.

_____
TOM RIGOR

The foregoing instrument was acknowledged before me this ____ day of October, 2005, by TOM RIGOR, who is personally known to me.

_____
Notary

_____
printed name

_____
Title, Rank, Serial No., etc.

My Commission Expires:

AFFIDAVIT

STATE OF MARYLAND
COUNTY OF _____

BEFORE ME, the undersigned authority, personally appeared DAVID C. BLESSING, who deposed and said that he is employed as a consultant for Alltel and that ALLTEL Florida, Inc.'s answers to Staff's First Set of Interrogatories attributed to him are true and correct to the best of his information and belief.

DATED this ____ day of October, 2005.

_____
DAVID C. BLESSING

The foregoing instrument was acknowledged before me this ____ day of October, 2005, by DAVID C. BLESSING, who is personally known to me.

_____
Notary

_____
printed name

_____
Title, Rank, Serial No., etc.

My Commission Expires:

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Carrier Name	Carrier f/k/a	Carrier Type	Type of Agreement	Service To Residential	Service to Business
Actel Wireless, Inc.		CLEC	Resale Only	Y	N
Cat Communications International		CLEC	Resale Only	Y	N
Coastal Telephone Connections, I	Coastal Connections	CLEC	Resale Only	Y	N
Cox Florida Telecom, L.P.		CLEC	Interconnection without UNE	Y	N
Flatel, Inc.	Florida Telephone Company	CLEC	Resale Only	Y	N
Georgia Telephone Services, Inc.		CLEC	Resale Only		
Global Connection Inc. of America		CLEC	Resale Only	Y	N
Global NAPs, Inc.		CLEC	Interconnection with UNE		
International Design Group, Inc.	USA Telecom	CLEC	Resale Only		
Level 3 Communications, LLC		CLEC	Interconnection without UNE		
Local Line America, Inc.		CLEC	Resale Only		
MCImetro Access Transmission S		CLEC	Interconnection without UNE		
MET Communications, Inc.		CLEC	Resale Only	Y	N
Ring Connection, Inc.		CLEC	Resale Only	Y	N
Source One Communications, Inc		CLEC	Resale Only	Y	N
Sprint Communications Company		CLEC	Interconnection without UNE		
Universal Telecom, Inc.		CLEC	Resale Only	Y	N
Vertex Communications, Inc.		CLEC	Resale Only		
Vision Prepaid Services, Inc.		CLEC	Resale Only		
Business Telecom, Inc., d/b/a BTI		ILEC	Interconnection without UNE		
Sprint Services	United Telephone System	ILEC	Other		
ALLTEL Communications, Inc.	ALLTEL Mobile Comm, Inc.	WIRELESS	Interconnection without UNE	Y	Y
AT&T Wireless Services, Inc.		WIRELESS	Interconnection without UNE	Y	Y
Cingular		WIRELESS	Interconnection without UNE	Y	Y
Nextel South Corp.		WIRELESS	Interconnection without UNE	Y	Y
NPCR, Inc.		WIRELESS	Interconnection without UNE	Y	Y
Powertel, Inc.		WIRELESS	Interconnection without UNE		
Sprint Spectrum L.P.	Sprint PCS	WIRELESS	Interconnection without UNE	Y	Y
T-Mobile USA, Inc.	VoiceStream CMRS Corporation	WIRELESS	Interconnection without UNE	Y	Y
United States Cellular Corp	Larsen Cellular	WIRELESS	Interconnection without UNE		
Verizon Wireless		WIRELESS	Interconnection without UNE	Y	Y

ATTACHMENT ONE

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition To Reduce Intrastate Switched Network Access Rates In A Revenue Neutral Manner Pursuant to Section 364.164, Florida Statutes	)	Docket No.: 050693-TL Dated: 10.31.05

ALLTEL'S ANSWERS TO
STAFF'S SECOND SET OF INTERROGATORIES

Pursuant to Rule 25-22.034, Florida Administrative Code and Rule 1.350, Florida Rules of Civil Procedure, Alltel Florida, Inc. ("Alltel"), by and through undersigned counsel, hereby answers Staff's Second Set of Interrogatories as set forth below.

41. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Willis, page 5, lines 17-24, pertaining to access line density in ALLTEL's service territory as compared to BellSouth, Sprint and Verizon. How does ALLTEL's relatively low access lines per square mile connection impact the ability of wireline CLECs to compete in ALLTEL's Florida service territory?

ANSWER:

The fact that there are a relatively low number of access lines per square mile in ALLTEL's Florida service territory does not affect the ability of CLECs to compete, but it does affect the potential strategy. The fact that ALLTEL's 1R prices are supported by other services is the key driver in that decision. While it is more costly for a CLEC to compete in a rural area by replicating a traditional wireline network again, the real problem is that the prices for voice services are so far below the average cost of a wireline network as calculated by the HAI 5.0a model or the embedded cost model approved by the FPSC in Docket 980696-TP and shown in Exhibit No. ___ (DCB-0), Table 1. CLECs are competing in rural areas using different technologies and/or service bundles. For example, cable TV companies, such as Time Warner and Cox that have already deployed facilities to provision cable TV and broadband internet services (and are receiving revenue from selling those services that can pay for those facilities) can also provision voice telephony for a relatively low incremental cost. Additionally, companies that offer VoIP-based voice telephony face a low entry cost if the customer already has access to broadband internet services. Wireless carriers have a significant cost advantage over traditional wireline-based LECs because they do not incur the expense of running wireline loops to reach customers and therefore, may be able to enter rural areas such as ALLTEL's Florida service territory and compete profitably. Thus, CLEC have the ability to compete in a rural area such as ALLTEL's and will be stimulated to do so when the pricing more closely is allowed to reflect costs.

David C. Blessing

42. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Willis, page 10, lines 4-9, pertaining to the calculation of switched network access revenue reductions. How did ALLTEL determine that $6 million was the appropriate amount to reduce intrastate switched network access revenues?

ANSWER:

Alltel examined the impact on the local residential rate if Alltel Florida were to rebalance rates to move access closer to or to achieve parity with interstate access charges. Alltel compared resulting rebalanced rate to existing local rates for residential service in other states in the southeast region. In comparison, Alltel found that the resulting rate was within the range of rates in some of the other southeastern states. Alltel then compared the resulting rebalanced rate to the rate determined by this Commission to be an affordable rate in the generic proceeding in Docket No. 98000a. Finally, Alltel compared the resulting rebalanced rate to the final rebalanced rates approved by the FPSC for the three large ILECs in Florida. Based on this analysis, Alltel concluded that the resulting residential rate if access rate parity was achieved, was above the rate determined by this commission to be affordable and greater than the final rebalanced rate approved by the Florida Public Service Commission for the large ILECs. Therefore, Alltel proposed to rebalance rates by an amount that allowed the company to raise residential rates to a rate consistent with the rebalanced rate approved for the large ILECs in Florida, in particular Sprint.

Alltel and Sprint operate in some very comparable rural areas. For example, Sprint provides service in, among others, the following counties: Jackson, Jefferson, Madison and Wakulla which are similar to Alltel's Alachua, Bradford, Suwannee and Union Counties in median income. The median income for these Sprint areas is $29,744-$37,149 and that of comparable Alltel areas is $29,963-$34,562. The commission approved rebalanced rates for Sprint exchanges in these areas of a maximum of $16.80 and Alltel is proposing maximum rates of $17.68 (excluding mandatory EAS) in exchanges located in comparable counties. The Commission has already therefore concluded that rebalancing in rural areas in amounts similar to that proposed by Alltel is favorable to competition and that service will remain affordable.

Bettye Willis

43. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Willis, page 11, line 1, pertaining to ALLTEL's intrastate composite switched network access rate. Please explain the origin of and basis for the Modified Access Based Compensation (MABC) rate and the circumstances when MABC applies rather than its intrastate switched network access charges.

ANSWER:

MABC interconnection charges were established by the Florida Public Service Commission pursuant to Order No. 17743 in Docket No. 850310-TL. The MABC rate is applied to intrastate minutes of use terminating to Alltel Florida from other incumbent local exchange carriers in Florida using the Feature Group C network (FGC).

Bettye Willis

44. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 3, line 16, pertaining to induced market entry. How soon does ALLTEL believe the reduction of so-called "implicit support" will have the objective result of inducing market entry into the local exchange market in ALLTEL's Florida service territory?

ANSWER:

The market entry plans of potential competitors are not publicly available, so we cannot know exactly how soon this rebalance will trigger their entry into specific markets. Generally speaking, however, we can say that as the market price for a service increases, the more suppliers that will seek to provide service. The timing of competitive entry is impacted, in large part, by the new market price. The sooner the price is reset more comparable to costs, the more interested competitors will be in providing service in that market. This conclusion is supported by the FPSC's decision for the Large LECS, which was upheld by the Florida Supreme Court. *See Florida Supreme Court Decision at pages 7-10.*

David C. Blessing

45. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 3, lines 19-20, pertaining to enhanced market entry.

(a) Describe in detail the features of a "more competitive local exchange market" as referenced in this passage.

(b) Assuming the Commission grants ALLTEL's Petition, how soon does ALLTEL believe this "more competitive local exchange market" will begin to provide benefits to residential consumers and describe what ALLTEL believes those benefits will be.

ANSWER:

(a) A more competitive local market will increase the interest and number of competitors than exist today providing local residential phone service. The new entrants will be incented to increase both the availability but also the marketing of new services. The new entrants will be incented to use whatever technologies they believe will be competitive, including technologies other than a traditional wireline to provide voice telephony to customers. As discussed in the direct testimony of Alltel witness Blessing, section VI. (pp. 30 – 39) and in the FPSC's *Annual Report to the Florida Legislature on the Status of Competition in the Telecommunications Industry in Florida as of May 31, 2004*, new competitors may provision competing voice service via wireless technology, cable TV facilities, VOIP or file-sharing technology, electrical power lines, or other technology. It is anticipated that the competitors would offer service bundles and pricing similar to those offered by Alltel as well as additional services and bundles not currently offered by Alltel.

(b) The Florida Supreme Court agreed with the Commission's conclusion that higher residential prices will lead ultimately lead to benefits for consumers. As the Court notes section 364.164(1)(a) requires the Commission to determine whether granting a petition will *ultimately* benefit residential customers (See Decision at page 8). As discussed in the response to Interrogatory No. 44, above, the market entry plans of potential competitors are not publicly available, so we cannot know with certainty the exact timing when competitors will enter ALLTEL's markets. Generally speaking, however, we can say that as the market price of a service increases, more suppliers will seek to provide that service. The timing of competitive entry is impacted, in part, by the new market price. Therefore, the sooner the market price is increased to be more reflective of costs, the sooner and greater will be the interest of competitors in providing service in that market. It should be noted that there are a number of competitive alternatives to ALLTEL's local residential voice service today that are being provided in various markets but they may not be as attractive of an alternative in Alltel's markets because

ALLTEL's 1R price is priced so far below average cost and is being supported by intrastate switched access revenues and other services. For example, cellular phone service is a competitive alternative that offers mobility in addition to voice service, but it is priced higher than fixed wireline service. If ALLTEL was able to increase the price of its 1R service to recover its average cost, cellular service at its current price would be considered an adequate substitute for wireline service by more customers.

The benefits of competition will be: (1) A greater number of service providers to chose from that offer a comparable service to ALLTEL's 1R voice service that consumers would consider to be a reasonable substitute, and (2) Competitive service providers that would distinguish themselves by offering a similar product at a better price or by offering better services and/or features, or better bundles of services.

David C. Blessing

46. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 5, lines 12-15. Given the relatively low access line density in ALLTEL's territory versus that of BellSouth, Sprint and Verizon, what characteristics of ALLTEL's territory make it likely that pricing ALLTEL's basic service closer to average cost will bring the benefits of competition to ALLTEL's consumers. Please explain in detail.

ANSWER:

Although the major CLECs have largely focused on competing in urban areas, there are a number of other CLECs that are focusing on rural areas. In some cases, a CLEC may chose to compete in rural areas because it knows that it will face less competition from the large CLECs. In other cases, the CLEC may already have facilities in place providing a different service that it can use to also provide telephony. This is the case with the Cable TV companies. As noted, in the responses to Staff's first request for production of documents, Both Cox and Time Warner have facilities and provide cable TV in some of Alltel's exchanges and have announced plans to provide voice telephony in the future.

While we do not have specific cost evidence in this docket to know what minimum 1R price is needed for entry to be profitable for the various types of CLECs that could enter Alltel's territory, it is certain that as the price of 1R increases, more CLECs will be able to recover their costs of providing service using their specific technology and will seek to enter Alltel's market. A CLEC's decision to enter Alltel's territory has less to do with the characteristics of Alltel's territory and more to do with the profitability of serving customers there. If the price of 1R service is higher, then profits for CLECs will be sufficient to support service provision by CLECs.

As discussed in the Direct Testimony of David Blessing, there are examples of competitive carriers entering rural markets especially where rates have been rebalanced. For example, the State of Wyoming specifically sought to rebalance rates to encourage competitive entry. As outlined in Mr. Blessing's testimony on pages 33 – 39, numerous providers have entered local markets in Wyoming despite their rural nature. Time Warner Cable and Cox Communications have already announced through their websites that they intend to enter ALLTEL's territory. Rebalancing ALLTEL's 1R rates will give these two potential competitors incentive to enter ALLTEL's territory sooner than they might have originally planned.

As discussed earlier in response to Interrogatory number 42, above, Sprint serves rural areas like Madison and Jefferson Counties that are rural and are demographically similar to Alltel's territory (based on, for example, median income). The fact that Sprint serves rural areas was

before the Commission in the large ILEC rebalancing case and this Commission approved rebalancing like that proposed by Alltel in this proceeding. The Commission's prior decision shows the Commission's view that competition can be encouraged in rural areas via rebalancing.

David C. Blessing

47. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 6, lines 19-22, pertaining to past public policy regarding rates for residential basic telephone service. Please cite the origin of the "public policy" that "dictated" that rates for basic local residential telephone service should be priced at artificially low levels.

ANSWER:

The specific origin of the universal service-based public policy that 1R should be supported by other services to aid the spread of residential local telephone service to all customers may be unknown, but it is universal. Theodore Vail, the CEO of AT&T in the early 1900s, coined the phrase, "one system, one policy, one universal service" which, at that time, simply meant that one company should be the sole monopoly provider of local exchange telephone service yet subjected to regulation by government. However, Vail's goal was more in response to positioning AT&T as the sole provider of local telephone service and eliminating competitors under the guise of allowing all customers to be interconnected to each other by using one phone company rather than five separate phone companies that were not interconnected with each other. The concept of pricing local service below average cost to spur the spread of 1R phone service under the banner of "universal service" appears to have evolved later, perhaps around 1934 with the passage of the 1934 Communications Act. Regardless of when and where the current concept of universal service originated, it cannot be disputed that a public policy of holding 1R rates below average cost and supporting 1R rates by pricing other services such as intrastate switched access above average cost does not exist in light of the fact that the overwhelming majority of states in the United States, price 1R service significantly below 1B service (which costs approximately the same as 1R service) and support 1R service by charging more than average costs for such services as intrastate switched access service, intraLATA toll calling, and custom calling features.

David C. Blessing

48. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing Pg 7, lines 3-18, pertaining to telephone penetration rates.

(a) Please provide figures and sources you have for the 2004 calendar year relating to telephone penetration rates specific to ALLTEL's Florida territory?

(b) Do you believe that a 90% penetration rate is an acceptable level of telephone subscribership in ALLTEL's service territory? If so, please explain why.

(c) Please provide the average penetration rate for telephone subscribership in Florida for households at or below the median household income for Florida of $38,819.

(d) Please provide the median household income by county for those counties in ALLTEL's Florida service territory.

ANSWER:

(a) FCC data on penetration rates for wireline service measures this rate at the state and national levels, not in a service providers territory, so Alltel has no data that measures penetration rates in its Florida territory. A comparison of households and residential access lines in Alltel Florida exchanges show that the number of access lines is generally greater than the number of households which would lead one to believe penetration rates are at least in the 90% range.

(b) Alltel is aware of no studies that suggest the ideal rate of penetration for local phone service. Even in the highest income levels, where affordability is clearly not a factor that could prevent subscribership, FCC data indicate that penetration is less than 100% suggesting that 1) some people may simply not want a phone; 2) that measuring penetration by households is a flawed measure and may not accurately account for vacation homes, apartments without tenants or other factors, 3) penetration rates everywhere are facing downward pressure as consumers begin substituting wireless service for wireline service, or 4) other unidentified reasons..

Additionally, FCC penetration data only measure penetration of wireline-based telephone service rather than measuring telephone penetration regardless of the technology the customer uses. As more households adopt alternative telecommunications technologies (wireless, cable TV, VoIP, etc.) and discontinue wireline telephone service, it will become more difficult to measure penetration unless the FCC changes the way it measures penetration.

(c) ALLTEL does not track telephone subscribership based on the income levels of its subscribers.

(d)

Florida Median Household Income	**$38,819**
Florida Per Capita Money Income	**$21,557**
Florida Percentage of Persons below Poverty	**12.5%**

County	Median Household Income	Per Capita Money Income	Population for Whom Poverty is Determined	Number of Persons below Poverty	Percentage of Persons below Poverty
Alachua County	$31,426	$18,465	206,224	46,939	22.8%
Bradford County	$33,140	$14,226	21,812	3,183	14.6%
Columbia County	$30,881	$14,598	53,485	8,027	15.0%
Hamilton County	$25,638	$10,562	10,760	2,799	26.0%
Lafayette County	$30,651	$13,087	5,718	999	17.5%
Marion County	$31,944	$17,848	251,736	32,918	13.1%
Nassau County	$46,022	$22,836	56,772	5,192	9.1%
Putnam County	$28,180	$15,603	69,225	14,449	20.9%
St. Johns County	$50,099	$28,674	120,920	9,698	8.0%
Suwannee County	$29,963	$14,678	34,260	6,325	18.5%
Union County	$34,562	$12,333	9,289	1,298	14.0%

Based on 2000 Census information obtained from the U.S. Census Bureau website

Income Information Source: http://quickfacts.census.gov/qfd
Poverty Information Source: http://www.census.gov/hhes/poverty/2000census/poppvstat00.html

Bettye Willis 48 (a)
David C. Blessing 48(b) – (d)

49. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing Pg 7, footnote 3, pertaining to the FCC's most recent report, *Telephone Subscribership in the United States (Data through March 2005).* Does ALLTEL believe it is significant that based on the most recent FCC data (through March 2005), telephone penetration declined in Florida by 1.8% from the annual average for 2004 and declined nationwide 1.4% from the national annual average for 2004? Please explain why or why not.

ANSWER:

No. As discussed in the answer to Interrogatory No. 48b above, there are flaws with the FCC's current data for measuring telephone penetration. First, FCC penetration data only measure penetration of wireline-based telephone service rather than measuring penetration inclusive of other telecommunications technology that customers use. There is a growing body of evidence that supports the idea that increasingly more telephone users are discontinuing their landline service and relying on only their wireless service as their sole provider for voice telephony services. The FCC current penetration data does not reflect the fact that a telecommunications user may not have a landline, but may be served by a wireless line or a Cable TV based voice connection. As more households adopt alternative technologies (wireless, cable TV, VoIP, etc.) and discontinue wireline telephone service, it will become more difficult to accurately measure penetration unless the FCC changes the way it measures penetration and attempts to measure all telecommunications technologies. Therefore, it is difficult to draw any definitive conclusion from an apparent decline in wireline telephone penetration of 1.8% in Florida and 1.4% nationwide. Total telecommunications subscribership may have actually increased during that period if one considers the increases in wireless and voice over broadband usage which could mean that the decline may simply reflect the fact that people are shifting away from wireline-based telephony and using other technologies for their voice communications needs. Therefore, given the problems with measuring penetration, it is not possible to draw any definitive conclusions from the FCC's data for March 2005.

David C. Blessing

50. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 8, lines 12-18, pertaining to competitive pressures on ALLTEL's rates for certain services. Please describe in detail any competitive pressures ALLTEL is currently experiencing relating to business customers in its Florida service territory.

ANSWER:

While Alltel Florida's competitive pressure relating specifically to business customers appears relatively minimal at this time, Alltel is experiencing access line decreases. Alltel has experienced some business customers porting their phone numbers to wireless carriers, and anticipates continued decline in business access lines as cable competitors gear up to offer voice service in Alltel's territory.

Bettye Willis

51. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing Pg 17, footnote 10, pertaining to the definition of cross-subsidy. Please provide the Faulhaber definition of a cross-subsidy.

ANSWER:

Faulhaber's analysis concludes that a cross-subsidy exists if the revenue received from each individual service and each possible combination of services falls outside of the range bounded by the Long Run Incremental Cost (LRIC) and the Stand-Alone Cost (SAC) of each individual service and combination of services. Simply put this means that in order to declare a rate or rate structure to be subsidy-free no service or group of services can be receiving or providing a subsidy to another service or group of services. If we assume that the total revenue of all services equals economic cost then no subsidy is received or provided if revenue falls between LRIC and SAC for each individual or group of services.

David C. Blessing

52. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 21, lines 1-13, pertaining to the development of a more competitive local exchange market. At the local service rate levels targeted by ALLTEL's rebalancing petition, does ALLTEL believe a competitor would be able to attract sufficient numbers of consumers in ALLTEL's territory to achieve economies of scale necessary to effectively compete for residential consumers? Please explain your answer.

ANSWER:

Yes. Although Alltel is unaware of the specific market entry requirements of all competitors that may be willing to enter Alltel's territory once its proposed prices are adopted, including the target price for 1R service that each competitor must have to make market entry viable, ALLTEL notes that certain carriers (Time Warner and Cox Communications) have already publicly announced via their websites that they intend to provide voice telecommunications services at some future date in ALLTEL's service area. Additionally, internet-based service providers such as Skype may already be competing in ALLTEL's territory today. Skype appears to have a low target price for 1R and a low customer acquisition cost. Inasmuch as subscribership through Skype is a self-motivated customer decision where a customer would simply decide to download Skype software and begin paying for Skype service, it is possible that Skype may already be providing service to some Alltel customers without the knowledge of Alltel. When Allel's new proposed prices go into effect, Skype's service will become that much more attractive to consumers.

The Direct Testimony of David Blessing pages 22 and 28 – 38 discuss in detail, potential competitors entering Alltel's rural territory. Pages 33 – 38 specifically discuss CLECs entering rural markets and cite real world examples where the state regulatory commissions have rebalanced a LEC's rates which has induced CLECs to enter those rural markets. Finally, in the large ILEC rate rebalancing case, the Commission addressed the issue of promoting competition in rural areas by rebalancing rates and determined that rate rebalancing would promote competition in the rural areas that Sprint serves. Given that Sprint and Alltel both serve rural areas, it stands to reason that rate rebalancing should also increase competition in Alltel's rural areas.

David C. Blessing

53. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 25, lines 13-15, pertaining to the Ros and McDermott study. This testimony addresses the relationship between unbalanced prices and the "percent of ILEC residential lines served by switching centers where new entrants have collocation arrangements."

(a) In ALLTEL's Florida service territory, how many switching centers have CLEC collocators?

(b) If the answer to (a) is zero, please explain the relevance of the Ros and McDermott study to the instant proceeding.

(c) Does ALLTEL allow CLEC collocators in its Florida service territory? If not, please explain why.

ANSWER:

(a) Alltel Florida has several Interconnection Agreements in Florida that allow for collocation but as of today none have Physical or Virtual equipment collocated in our offices.

(b) Some CLEC service providers may not need to collocate a switch within any of ALLTEL's central offices in order to provide service to customers within ALLTEL's territory. For example, Time Warner Cable has its own facilities and switches and does not need to collocate a switch with ALLTEL. Additionally, none of the wireless carriers need to collocate a switch with ALLTEL in order to provide service within ALLTEL's territory. VoIP-based service providers do not need to collocate a switch with ALLTEL in order to provide service within ALLTEL's territory. Nor do file-sharing-based service providers such as Skype. Inasmuch as not all telecommunications service providers need to collocate a switch to provide service, Ros and McDermott's study suggesting that rebalancing rates leads to increased competition still seems relevant with the main point being that more CLECs will enter a market if the market price of the service increases.

(c) Yes.

Bettye Willis 53 (a); David C. Blessing 53(b) – (c)

54. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 27, lines 14-16, pertaining to the Eisner and Lehman study, stating that the "authors were interested in the efficacy that the pricing of unbundled network elements (UNEs) and the setting of resale discounts had on CLEC entry."

(a) Does ALLTEL Florida offer UNEs? If not, please explain why.

(b) Does ALLTEL Florida offer resale discounts? If not, please explain why.

(c) If the answers to (a) and (b) are negative, please explain the relevance of the Eisner and Lehman study to the instant proceeding.

ANSWER:

(a) Alltel Florida has interconnection agreements in Florida that allow for UNEs but as of today the company is not providing any UNEs. For example, Alltel Florida's agreement with GlobalNaps allows for UNEs.

(b) As of today Alltel Florida is not providing any discounts to current resellers in our territory because no reseller has requested discounts.

(c) N/A

Bettye Willis 54(a) & (b)
David C. Blessing 54 (c)

55. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, pages 29 and 30, lines 21-22 and 1-3 respectively, pertaining to combined service offerings by Cox and Time Warner cable providers.

(a) Does ALLTEL offer bundled packages, e.g., local and long distance; local, long distance, and wireless, etc.? If so, please list the package name, whether it is a residential or business package, the services it includes, and its price.

(b)If the Commission approves ALLTEL's petition, will the rates of any ALLTEL bundled packages increase? If so, which ones and by how much?

ANSWER:

(a) Alltel currently has Connect Unlimited bundles available in Florida. Connect Unlimited includes local service, 4 calling features, and unlimited long distance for $54.95. When bundled with DSL, we provide additional discounts with DSL 1.5M for $19.95. When bundled with DSL and our video service, we provide additional discounts with DSL 1.5M for $14.95 and video with 120 channels for $34.99. Customers can get all three services with Alltel for $104.89 (plus taxes & fees).

(b) No.

Bettye Willis

56. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 29, lines 11-21, pertaining to cable TV companies providing competing voice telephone service in ALLTEL's Florida territory.

(a) When does Cox Communications intend to begin offering local calling plans in ALLTEL's Florida territory?

(b) Does Time Warner Cable (TWC) currently offer voice communications services in ALLTEL's service territory? If so, in what ALLTEL exchanges does TWC offer these services?

ANSWER:

(a) Cox Communications did not publish specific entry dates on when it will begin offering local calling plans in Alltel's Florida territory.

(b) Time Warner Cable does not currently offer voice communications services in Alltel's service territory. Time Warner Communications did not publish a specific entry date on its website but intends to provide service in the following Alltel Florida exchanges – Melrose, Interlachen, Dowling Park, Live Oak, and Jennings.

David C. Blessing

57. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 30, lines 1-3, pertaining to cable TV companies providing competing voice telephone service in ALLTEL's Florida territory.

(a) Do either Cox or TWC offer bundled service offerings that include local phone service in ALLTEL's Florida service territory?

(b) If so, in what ALLTEL exchanges are these services offered and by which company(s)?

ANSWER:

(a) Not at this time.

(b) N/A

David C. Blessing

58. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 33, lines 18-21, pertaining to competitors entering rural markets similar to those served by ALLTEL. Does Unite Communications Systems provide residential or business voice communications service anywhere in Florida? If so, where?

ANSWER:

No. Unite Communications does not provide voice communications services in Florida; however, the success of Unite Communications shows that a company can be successful serving smaller, rural markets by building its own network and providing multiple services.

David C. Blessing

59. For the following questions, please refer to the direct testimony of witness Blessing beginning on page 34, line 18 and continuing through page 35, line 7.

(a) Did Wyoming rebalance its rates in order to start or increase local competition? If not, why did Wyoming rebalance its rates? Please explain your answer.

(b) What was the CLEC market share in Wyoming when Wyoming first began to balance its rates?

(c) What is the current CLEC market share in Wyoming?

ANSWER:

(a) Yes. The fostering of local competition was a main goal of rebalancing local rates in Wyoming.

(b) When the Wyoming Telecommunications Act of 1995 (which had provisions to rebalance rates) went into effect on March 1, 1995, there were no CLECs in Wyoming.

(c) CLECs currently serve 25,876 lines in Wyoming of a total of 307,130 access lines in service or 8.4%.

David C. Blessing

60. For the following questions, please refer to Exhibits, DCB-20 (Wyoming PSC 2005 Annual Telecom Report) and DCB-40 (the FCC's status report on local telecom competition as of June 30, 2004) to the direct testimony of witness Blessing.

(a) The FCC report did not provide a CLEC market share percentage for Wyoming, noting "[D]ata withheld to maintain firm confidentiality" (DCB-40, Table 6). In the Wyoming PSC's report, however, CLEC lines are reported to number 25,876 out of a total 307,130 access lines (DCB-20, page 61). Why is there a discrepancy between the two reports? Please explain your answer.

(b) For each of the Wyoming PSC's 2004, 2003, 2002, 2001, and 2000 reports, what were the total number of ILEC access lines and CLEC access lines?

ANSWER:

(a) ALLTEL is not aware of the reason as to why there would be a discrepancy in the data between the FCC report and the Wyoming PSC's report.

(b) The Wyoming PSC Reports contain the following data regarding the total number of ILEC access lines and CLEC access lines.

	ILEC	CLEC	Total
1998		unknown	296,979
1999		unknown	303,107
2000		unknown	310,073
2001	292,344	28,300	320,644
2002	296,760	29,684	326,444
2003	289,810	28,840	318,650
2004	281,254	25,876	307,130

David C. Blessing

61. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 42, lines 20-23, pertaining to measures of income. Please describe the difference between annual median family income compared to annual median household income.

ANSWER:

The definitions of household income and family income are taken from the US Census Bureau, Census 2000, page B-19.

Income of households. This includes the income of the householder and all other individuals 15 years old and over in the household, whether they are related to the householder or not. Because many households consist of only one person, average household income is usually less than average family income. Although the household income statistics cover calendar year 1999, the characteristics of individuals and the composition of households refer to the time of enumeration (April 1, 2000). Thus, the income of the household does not include amounts received by individuals who were members of the household during all or part of calendar year 1999 if these individuals no longer resided in the household at the time of enumeration. Similarly, income amounts reported by individuals who did not reside in the household during 1999 but who were members of the household at the time of enumeration are included. However, the composition of most households was the same during 1999 as at the time of enumeration.

Income of families. In compiling statistics on family income, the incomes of all members 15 years old and over related to the householder are summed and treated as a single amount. Although the family income statistics cover calendar year 1999, the characteristics of individuals and the composition of families refer to the time of enumeration (April 1, 2000). Thus, the income of the family does not include amounts received by individuals who were members of the family during all or part of calendar year 1999 if these individuals no longer resided with the family at the time of enumeration. Similarly, income amounts reported by individuals who did not reside with the family during 1999 but who were members of the family at the time of enumeration are included. However, the composition of most families was the same during 1999 as at the time of enumeration.

David C. Blessing

62. Subsection 364.051(3), Florida Statutes, provides that a local exchange company that has elected price cap regulation may adjust its basic service revenues by inflation less 1 percent once in any twelve month period. Please indicate the effective date and the percentage increase for each annual filing ALLTEL has implemented pursuant to this statutory provision.

ANSWER:

Effective Date	***% Increase***
June 24, 2001	1.34%
July 1, 2002	.54%
July 4, 2003	.34%
July 7, 2004	.908%

(Note, Key and Pushbutton increases were accidentally left off the June 2001 filing - filed later, effective 2/9/02)

Bettye Willis

63. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 45, Lines 16-18, pertaining to Average Revenue Per User for cellular phone service.

(a) What is the Average Monthly Revenue Per 1R account for ALLTEL Florida?

(b) What is the Average Monthly Revenue Per 1B user account ALLTEL Florida?

ANSWER:

(a) $34.23

(b) $47.49

Note: Does not include an estimate for toll.

Bettye Willis

64. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 46, lines 1-8, pertaining to affordability of basic telephone service in Florida. What is the percentage of households that subscribe to wireless telephone service in ALLTEL's service territory?

ANSWER:

Neither the Cellular Telephone Industry Association nor the FCC track wireless subscribership by any other factor other than by statewide subscribership. Thus, there is no wireless subscribership data by LEC service territory, by county, or by household.

David C. Blessing

65. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 46, lines 12-18, pertaining to what Florida households pay for cable TV or internet service.

(a) What is the cable television penetration rate for all households in ALLTEL's service territory?

(b) What percentage ALLTEL wireline customers subscribe to ALLTEL DSL service in ALLTEL's service territory?

ANSWER:

The answer to this interrogatory contains proprietary confidential business information and is being filed with the Clerk under a separate confidential cover, subject to Alltel's Fourth Notice of Intent to Request Confidential Classification and Fourth Motion for Temporary Protective Order.

David C. Blessing (a)
Bettye Willis (b)

66. For purposes of the following request, please refer to the direct testimony of ALLTEL witness Blessing, page 52, lines 12-14, pertaining to Lifeline as an effective method of ensuring telephone rates remain affordable in Florida.

(a) How many Lifeline subscribers did ALLTEL have as of the date it filed its petition?

(b) How many households in ALLTEL's Florida service area does the company estimate are presently eligible for Lifeline assistance under current eligibility criteria?

(c) How many additional households does the company estimate will become eligible under the income eligibility standard of 135% of the federal poverty guideline that would become effective if ALLTEL's rebalancing petition is approved?

ANSWER:

(a) Alltel had 3,067 lifeline customers as of September 30, 2004.

(b) Alltel does not have data to estimate the number of households in its service area that are eligible for Lifeline assistance under the current eligibility criteria.

(c) Alltel does not currently have data to estimate the number of households that will become eligible under the income eligibility standard of 135% of the federal poverty guideline.

Bettye Willis

67. Please identify the number of intrastate switched access originating minutes for the years 2000, 2001, 2002, 2003, and 2004.

ANSWER:

The answer to this interrogatory contains proprietary confidential business information and is being filed with the Clerk under a separate confidential cover, subject to Alltel's Fourth Notice of Intent to Request Confidential Classification and Fourth Motion for Temporary Protective Order.

Bettye Willis

68. Please identify the number of intrastate switched access terminating minutes for the years 2000, 2001, 2002, 2003, and 2004.

ANSWER:

The answer to this interrogatory contains proprietary confidential business information and is being filed with the Clerk under a separate confidential cover, subject to Alltel's Fourth Notice of Intent to Request Confidential Classification and Fourth Motion for Temporary Protective Order.

Bettye Willis

69. Please provide the average monthly intrastate long distance minutes of use for ALLTEL's Florida residential customers for the most recent twelve month period.

ANSWER:

Alltel only has intrastate long distance minutes of use for its long distance service and the service of its long distance affiliate. The average monthly intrastate long distance minutes of use for Alltel's Florida residential customers who subscribe to Alltel's long distance or its affiliate long distance service is 2,623,952.

Bettye Willis

70. Please provide the average monthly intrastate long distance minutes of use for ALLTEL's Florida single-line business customers for the most recent twelve month period.

ANSWER:

Alltel only has intrastate long distance minutes of use for its long distance service and that of its long distance affiliate. The average monthly intrastate long distance minutes of use for Alltel's Florida business customers who subscribe to Alltel's long distance service or its affiliate long distance service is 1,089,827. Alltel is not able to separate out minutes of use for single-line business only.

Bettye Willis

71. Please provide the average monthly intrastate long distance revenue for ALLTEL's Florida residential customers for the most recent twelve month period.

ANSWER:

Alltel only has intrastate long distance revenues for residential subscribers who subscribe to its long distance service or the long distance service of its long distance affiliate. The average monthly intrastate long distance revenue for Alltel's Florida residential customers is $229,263.

Bettye Willis

72. Please provide the average monthly intrastate long distance revenue for ALLTEL's Florida single-line business customers for the most recent twelve month period.

ANSWER:

Alltel only has intrastate long distance revenues for business subscribers who subscribe to its long distance service or the long distance service of its long distance affiliate. The average monthly intrastate long distance revenue for Alltel's Florida business customers is $105,079.

Bettye Willis

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition To Reduce Intrastate Switched Network Access Rates In A Revenue Neutral Manner Pursuant to Section 364.164, Florida Statutes	)	Docket No.: 050693-TL Dated: 11.10.05

ALLTEL'S ANSWERS TO STAFF'S
THIRD SET OF INTERROGATORIES (NOS. 73-92)

Pursuant to Rule 25-22.034, Florida Administrative Code and Rule 1.350, Florida Rules of Civil Procedure, Alltel Florida, Inc. ("Alltel"), by and through undersigned counsel, hereby answers Staff's Third Set of Interrogatories as set forth below.

73. In response to Staff's First Set of Interrogatories, No. 33, Alltel states in part "one key factor that all new competitors will consider before entering a new market is the market price of local service (generally, the ILEC's price)." With intermodal competition from wireless, VOIP, and cable telephone providers, please explain why the relevant market price for entry is the price of Alltel's basic local service.

ANSWER:
Alltel's price of basic local service is the relevant market price that competitors will consider when analyzing whether to enter Alltel's territory to provide competing voice telecommunications service because all competitors will compare their cost to provide voice service against the prevailing market price at which they can sell that service in order to determine if there is a sufficient profit margin to justify entering that market. All competitors for voice telecommunications service that are contemplating entering a new market, whether they provision voice services via wireless, cable TV, VoIP, or some other technology, look at the market price of the service they are seeking to provide. Although they may provide a bundle of services such as R1, custom calling features, voicemail, and long distance calling, they will look at the market price of each service (R1, custom calling features, voicemail, and long distance calling) individually and collectively as a bundled offering when making their decision about whether to enter. It is assumed that if the price of R1 increases, then the price of the bundle of services will increase also if it includes R1 service.

Cost is the other key component, which is related to price, that all competitors will consider in evaluating whether to enter a particular market. Although all competitors face the same market price for R1 service, each competitor will likely have a different cost of providing service even among those competitors that provision service using the same technology, but particularly more so among competitors that use different technologies. As discussed in the Direct Testimony of David C. Blessing and in response to the previous two sets of interrogatories propounded by Staff, different carriers have different costs of providing local service. For example, while it may be expensive for a wireline-based CLEC to replicate Alltel's PSTN network in a rural area even using a combination of their own switches and leasing loops from Alltel, it may be significantly less expensive for a cable TV-based CLEC such as Time Warner Communications or Cox Communications to provide voice telephony over their cable TV facilities. Furthermore, internet –based CLECs such as Vonage or AT&T that use VoIP technology or CLECs such as Skype/eBay that use file-sharing technology, may enjoy provisioning costs that are even lower than those faced the cable TV providers especially in light of the fact that they offer their voice telephony software as a free download. Additionally, the wireless carriers already have facilities in place today and are offering competitive voice telephony throughout Alltel's service territory. Their cost to provide voice telephony may be relatively low and not reflected in their current price of service.

Customer density can be a large factor in determining the cost of serving customers. Generally speaking, rural areas are more expensive to serve than urban areas in large part because rural areas contain fewer customers per square mile which means that rural areas will have lower economies of scale for both loops and switching.

Loops. In rural areas, individual loop runs are generally longer. There are fewer loops to aggregate into trunk groups. In rural areas, customer premises can be very spread out and far apart especially when a wireline LEC must serve farms with houses several miles apart meaning the LEC will have less loop aggregation. By contrast, a city will have customer premises closer together such as in apartment building complexes, multi-tenant units, and residential subdivisions. This allows the wireline LEC to run short drops from the customers' premises to a pedestal, digital loop carrier, or other aggregation point, and aggregate multiple loops onto a larger copper cable or even onto fiber. Rural areas lack the same degree of customer density to justify investing in the same type of facilities aggregation as found in urban areas.

Switches. Switching costs are higher in rural areas than in urban areas because there are fewer customers and less network traffic passing through the switch over which to recover the switching investment costs. Switching costs are largely a large fixed investment and are typically recovered based on network usage. That is measured traffic such as local exchange access for originating and terminating intraLATA and interLATA (intrastate and interstate) toll calls and transport and termination charges for local traffic (reciprocal compensation for terminating local traffic from interconnecting local carriers, both wireline and wireless) are billed on a per minute of usage basis to help recover the cost of the local switch. Additionally, some portion of the local switch may be recovered for local calling via local measured service charges for those LECs that have local measured service or simply as part of the flat rate that local end users pay for using the local network.

The challenge for a CLEC serving a rural area that has very low R1 rates that are supported by intrastate switched access revenues and other revenues as well is to find the least cost technology that will allow it to serve those customers given the price constraints it will face. Clearly, as Alltel's R1 price increases, we should see those CLECs with an average cost to provide R1 service that is below Alltel's new average rate of $16.49 entering Alltel's territory.

The difference in cost between serving customers in rural versus urban markets is similar to the difference in cost to serving residential versus business customers. Large businesses typically have a large aggregation of access lines per location which can be served on a very low cost on a per line basis. By contrast, residential customers may have only one or two access lines per customer location which makes them much more expensive to serve on a per line basis.

Likewise, urban areas typically have a large aggregation of access lines per urban area which can be served on a relatively lower cost on a per line basis. By contrast, rural areas may have only a few access lines per area which makes them much more expensive to serve on a per line basis. However, as the Commission noted in Order Number PSC-03-1469-FOF-TL in the large LEC docket, "As evidenced by the results in other states that have engaged in rate rebalancing, the ILECs' proposals will make the residential market more economically attractive for CLECs, which should lead to an increase in choice of providers." (See Order at page 23.) The Commission goes on to cite Maine and Georgia (two states with large rural populations) as states where Commissions successfully rebalanced rates and the resulting increase in competition "drove the price back down." (See Order at page 23.)

It should also be noted that Sprint, Verizon, and BellSouth each serve more rural customers than Alltel currently serves in the State of Florida. When the Commission approved the rate rebalancing plans for these three carriers, the Commission approved these three carriers' plans to rebalance rates in their rural exchanges with the express idea that rebalancing local R1 rates would "promote competition for the benefit of residential customers."(Order at p. 22.) If the Commission believed that rate rebalancing was only beneficial for urban areas and would not promote competition in rural areas, then the Commission would have only approved of rate rebalancing for Sprint, Verizon, and BellSouth in their urban exchanges.

Alltel currently provides 95,266 access lines in its Florida exchanges with an average population density of 58 people per square mile. By comparison, Sprint, Verizon, and BellSouth serve more access lines than does Alltel in exchanges of the same or lower population density. Sprint currently serves a total of 2,063,198 access lines in Florida all of which are classified as rural by USAC. I estimate Sprint provides approximately 507,233 access lines in its 62 least dense exchanges with a combined average population density of 58 people per square mile which represents nearly one half of all of Sprint's exchanges in Florida. Verizon currently serves a total of 2,221,297 access lines in Florida of which I estimate BellSouth provides approximately 45,920 access lines in its 10 least dense exchanges with a combined average population density of 58 people per square mile. BellSouth currently serves a total of 6,277,815 access lines in Florida of which I estimate BellSouth provides approximately 360,114 access lines in its 43 least dense exchanges with a combined average population density of 58 people per square mile. Inasmuch as the Commission has determined that rebalancing rates for the rural customers in Sprint, Verizon, and BellSouth territory will promote competition in those territories, it stands to reason that rebalancing Alltel's rates will also promote competition in Alltel's territory.

It should also be noted that the R1 price increase may last for only a short period. As new competitors enter the market, competition will increase which will, in turn, put downward

pressure on the price of R1 service as providers find increasingly cheaper means to provide service. It is anticipated that increased competition will lead to the survival of the lowest cost providers as competition continues to force the price down and squeeze profit margins. As the Commission determined in the Large LEC rebalancing order, "Furthermore, the witness testified that in AT&T's experience in Michigan and Georgia, where rates have already been rebalanced, although basic local service rates initially went up, in the long run, competition drove the price back down." (See Order at p. 23.)

David C. Blessing

74. Does Alltel's "Connect Unlimited Bundle" mentioned in response to Staff's First Set of Interrogatories, No. 23, provide functions that are the same or similar to those provided by the service offerings of wireless providers? If so, please list all such functions.

ANSWER:

Alltel's Connect Unlimited bundle includes local service, four calling features (the feature package included in the bundle has: caller ID deluxe, call waiting, caller ID on call waiting and selective call rejection), and unlimited long distance to anywhere in the U.S. (including Puerto Rico) and Canada for a total of $54.95. Alltel's Connect Unlimited bundle does not include Voice Mail.

A number of wireless carriers offer calling packages that are comparable to Alltel's Connect Unlimited bundle.

Sprint Wireless offers a couple of different calling plans depending upon the needs of the customer.
Sprint Fair & Flexible Plan - For $55.95, subscribers receive 1,000 Anytime minutes, unlimited Nights (9 p.m. – 6 a.m.) and weekends. Nationwide Long Distance Calling, Voice Mail, Caller ID, Call Waiting, Numeric Paging, Three-Way Calling, Call Forwarding ($0.10/minute), Directory Assistance ($1.25/call), 911 Dialing, Roaming, Voice Activated Dialing.

Sprint PCS Fair & Flexible America Plan for Families - For $69.99, subscribers receive 800 Anytime minutes, unlimited calling to other Sprint/Nextel phones, unlimited Nights (9 p.m. – 6 a.m.) and weekends. Nationwide Long Distance Calling, Voice Mail, Caller ID, Call Waiting, Numeric Paging, Three-Way Calling, Call Forwarding ($0.10/minute), Directory Assistance ($1.25/call), 911 Dialing, Roaming, Voice Activated Dialing. Can add up to 3 more lines for $10 per month per line.

Sprint Free Incoming Plan - For $59.99, subscribers receive 500 Anytime minutes, unlimited incoming minutes from any network, unlimited PCS Ready Link (Push-to-talk), unlimited Nights (9 p.m. – 6 a.m.) and weekends. Nationwide Long Distance Calling, Voice Mail, Caller ID, Call Waiting, Numeric Paging, Three-Way Calling, Call Forwarding ($0.10/minute), Directory Assistance ($1.25/call), 911 Dialing, Roaming, Voice Activated Dialing. Can add up to 3 more lines for $10 per month per line.

Sprint Wireless reaches 94.2% of Alltel's customers by providing service in the following Alltel exchanges: Alachua, Branford, Brooker, Callahan, Citra, Crescent City, Dowling Park,

Florahome, Fort White, Hastings, High Springs, Hilliard, Interlachen, Jasper, Jennings, Lake Butler, Live Oak, Mayo, McIntosh, Melrose, Raiford, Waldo, Wellborn, and White Springs. Verizon Wireless offers a couple of different calling plans depending upon the needs of the customer.

Verizon Wireless America's Choice Plan - For $59.99, subscribers receive 900 Anytime minutes, unlimited calling to other Verizon phones, unlimited Nights (9 p.m. – 6 a.m.) and weekends in home calling area, Nationwide Long Distance Calling, Voice Mail, Caller ID, Call Waiting, Numeric Paging, Three-Way Calling, Call Forwarding, Directory Assistance, 911 Dialing, Roaming, and No Answer/Busy.

Verizon Wireless America's Choice Family Share Plan - For $69.99, subscribers receive two phones and 700 Anytime minutes, unlimited calling to other Verizon phones, unlimited Nights (9 p.m. – 6 a.m.) and weekends in home calling area, Nationwide Long Distance Calling, Voice Mail, Caller ID, Call Waiting, Numeric Paging, Three-Way Calling, Call Forwarding, Directory Assistance, 911 Dialing, Roaming, and No Answer/Busy.

Verizon Wireless reaches 48.9% of Alltel's customers by providing service in the following Alltel exchanges: Alachua, Callahan, Citra, High Springs, Live Oak, McIntosh, Melrose, and Waldo.

Cingular Wireless offers a couple of different calling plans depending upon the needs of the customer.

Cingular Wireless Individual Plan - For $59.99, subscribers receive 900 Anytime minutes, unlimited calling to other Cingular phones (nationwide), unlimited Nights (9 p.m. – 6 a.m.) and weekends, Nationwide Long Distance Calling, Enhanced Voice Mail, Caller ID, Call Waiting, , Three-Way Calling, Call Forwarding, Directory Assistance, and 911 Dialing.

Cingular Wireless Family Plan - For $69.99, subscribers receive two phones and 700 Anytime minutes, unlimited calling to other Cingular phones (nationwide), unlimited Nights (9 p.m. – 6 a.m.) and weekends, Nationwide Long Distance Calling, Enhanced Voice Mail, Caller ID, Call Waiting, , Three-Way Calling, Call Forwarding, Directory Assistance, and 911 Dialing.

Cingular Wireless reaches 73.6% of Alltel's customers by providing service in the following Alltel exchanges: Alachua, Branford, Brooker, Callahan, Citra, Crescent City, Florahome, Fort White, Hastings, High Springs, Hilliard, Interlachen, Lake Butler, Luraville, McIntosh, Melrose, Raiford, and Waldo.

David C. Blessing

75. Does Alltel's "Connect Unlimited Bundle" mentioned in response to Staff's First Set of Interrogatories, No. 23, provide functions that are different from those provided by the service offerings of wireless providers? If so, please list all such functions.

ANSWER:

No. The wireless carriers offer all of the functions that Alltel offers and, in fact, offer additional functions that Alltel does not offer including mobility, text messaging, voice activated dialing, additional custom calling features, and more.

David C. Blessing

76. Does Alltel's "Connect Unlimited Bundle" mentioned in response to Staff's First Set of Interrogatories, No. 23, provide functions that are the same or similar to those provided by the service offerings of VOIP providers? If so, please list all such functions.

ANSWER:

Alltel's Connect Unlimited bundle includes local service, four calling features (the feature package included in the bundle has: caller ID deluxe, call waiting, caller ID on call waiting and selective call rejection), and unlimited long distance to anywhere in the U.S. (including Puerto Rico) and Canada for a total of $54.95. Alltel's Connect Unlimited bundle does not include Voice Mail.

A number of VoIP-based providers offer calling packages that are comparable to Alltel's Connect Unlimited bundle. Of particular concern is the fact that Verizon VoiceWing, Skype and other internet-based providers bypass Alltel's public switched telephone network and thus, Alltel's intrastate and interstate switched access charges. This highlights the importance of rebalancing Alltel's rates so that Alltel's R1 service can be supported by charges for R1 service rather than rely on support from access charges which are being bypassed by a new generation of VoIP-based providers. Internet-based providers also challenge the old concept that it is too costly for CLECs to compete in rural areas and show that competition can indeed come to rural areas. Clearly, this type of VoIP-based providers competition will be enhanced when Alltel's rates are rebalanced.

Verizon VoiceWing

For $34.95 per month, Verizon offers its premium package (VoiceWing Unlimited) which includes: Unlimited local calling, Unlimited long distance calling anywhere in the U.S. (including Puerto Rico) and Canada, Voicemail (Voicemail Plus) and a host of custom calling features including: Caller ID with Name, Caller ID Block, Call Waiting, Call Waiting with Caller ID, Call Forwarding, 3-Way Calling, 911 Dialing, Repeat Dial, Return Call, Do Not Disturb, Fax capability as well as internet-based features such as address book, address book synchronization, Anonymous Call Rejection, Call Logs, Click-to-Dial, Enhanced Call Forwarding with Scheduling, Incoming Call Block, Internet Directory Look-up, Permanent Caller ID Block, Schedule Call Back, Simultaneous Ring, Visual Voice Mail. Verizon's VoiceWing is available in every Alltel exchange in the State of Florida and accessible to 100% of Alltel's customer base.

Skype

Skype offers unlimited free calling between Skype users worldwide. For calls from a Skype User to nonSkype users virtually anywhere in the world (wireline or wireless) the customer pays $0.021 per minute. Skype users can receive calls from nonSkype users. Skype's per minute pricing differs from typical VoIP providers and is priced differently than traditional voice telephone service. Accordingly, the actual cost to the customer depends upon whom the customer calls. If the customer has a large network of friends on the Skype network, then it is conceivable that the Skype customer would pay very little for monthly calling. At a rate of $.021 cents per minute, the Skype customer would have to talk for nearly 44 hours per month (2,617 minutes, specifically) to nonSkype users to generate a charge as high as Alltel's $54.95 per month for Alltel's Connect Unlimited Bundle.

Skype offers free unlimited local calling to other Skype users, free unlimited long distance calling within the US and Canada to other Skype users, free unlimited long distance calling to any country in the world to other Skype users. Calls to nonSkype users are 2.1 cents per minute within the U.S. and to most major countries in the world. In addition, Skype offers a host of traditional custom calling features as well as numerous web-based calling features too numerous to mention. However, a few of the more typical features that Skype offers include: Voicemail, Call Log, Phone Book, Locate Me, Speed Dial, Do Not Disturb, 3-Way Calling, Alternative 911 or Alternative E-911 Service, Call Forwarding, Call Waiting, Caller ID, Safe Forward Number, Fax and Modem Support, Directory Assistance. Being a internet-based VoIP provider, Skype morphs easily into E-mail, instant messaging, text messaging, and other web-based applications. Skype is available in every Alltel exchange in the State of Florida and accessible to 100% of Alltel's customer base.

VONAGE

For $24.95 per month, Vonage offers its premium package (Premium Unlimited Plan) which includes: Unlimited local calling, Unlimited long distance calling anywhere in the U.S. (including Puerto Rico) and Canada, Voicemail (Voicemail Plus), Caller ID with Name, Call Waiting, Call Forwarding, 3-Way Calling, 911 Dialing, and other custom calling features. Vonage's VoIP-based service is available in every Alltel exchange, but customers can only get a local number in the 904 area code (Crescent City, Hastings, High Springs, Hilliard, Jasper, and Mayo) which is 22% of Alltel's customer base.

AT&T CallVantage

For $29.95 per month, AT&T offers its premium package (Premium Unlimited Plan) which includes: Unlimited local calling, Unlimited long distance calling anywhere in the U.S. (including Puerto Rico) and Canada, Voicemail, Call Log, Phone Book, Locate Me, Speed Dial, Do Not Disturb, 3-Way Calling, Alternative 911 or Alternative E-911 Service, Call Forwarding

Call Waiting, Caller ID, Safe Forward Number, Fax and Modem Support, and Directory Assistance. AT&T's CallVantage VoIP-based providers service is available in all Alltel exchanges but customers can only get a local number in the 904 area code (Crescent City, Hastings, High Springs, Hilliard, Jasper, and Mayo) which is 22% of Alltel's customer base.

David C. Blessing

77. Does Alltel's "Connect Unlimited Bundle" mentioned in response to Staff's First Set of Interrogatories, No. 23, provide functions that are different from those provided by the service offerings of VOIP providers? If so, please list all such functions.

ANSWER:

No. The VoIP-based provider offer all of the functions that Alltel offers and, in fact, offer additional functions that Alltel does not offer including, but not limited to: E-mail, instant messaging, text messaging, and other web-based applications.

David C. Blessing

78. Does Alltel's "Connect Unlimited Bundle" mentioned in response to Staff's First Set of Interrogatories, No. 23, provide functions that are the same or similar to those provided by the service offerings of cable telephone providers? If so, please list all such functions.

ANSWER:

Alltel's Connect Unlimited bundle includes local service, four calling features (the feature package included in the bundle has: caller ID deluxe, call waiting, caller ID on call waiting and selective call rejection), and unlimited long distance to anywhere in the U.S. (including Puerto Rico) and Canada for a total of $54.95. Alltel's Connect Unlimited bundle does not include Voice Mail.

A number of cable telephone providers offer calling packages that are comparable to Alltel's Connect Unlimited bundle.

Time Warner Cable
Time Warner Communications has a proven track record of providing voice telephony over its fiber/co-axial cable TV network. Time Warner offers a bundled voice package that is comparable to Alltel's Connect Unlimited bundle for only $39.95 per month. Time Warner's voice package includes, Unlimited Local Phone service, Unlimited Long Distance calling to anywhere in the U.S. (including Puerto Rico) and Canada and custom calling features such as: Call Waiting, Caller ID, Call Waiting ID, Voicemail, Published Directory Listing & Directory Assistance Listing, Unpublished Directory Listing & No Directory Assistance Listing, Caller ID Block, Cancel Call Waiting, Call Forwarding, Speed Dial, Anonymous Call Reject, Caller ID Unblocking, and Enhanced 911 Service. Time Warner currently provides cable TV service in the following Alltel exchanges: Dowling Park, Interlachen, Live Oak, Mayo, and Melrose, reaching 25% of Alltel's subscriber base. Time Warner has announced via its website that it intends to offer voice telephony to those exchanges in the near future.

Similar to the concerns discussed with the VoIP-based providers, cable telephone providers such as Time Warner also bypass Alltel's public switched telephone network and thus, Alltel's intrastate and interstate switched access charges. Again, this highlights the importance of rebalancing Alltel's rates so that Alltel's R1 service can be supported by charges for R1 service rather than rely on support from access charges which are being bypassed by a new generation cable TV and VoIP-based CLECs. Cable telephony providers such as Time Warner also challenge the old concept that it is too costly for CLECs to compete in rural areas and show that

competition can indeed come to rural areas. Clearly, cable telephony-based competition will be enhanced when Alltel's rates are rebalanced.

Other Alltel Services: Alltel also sells high speed internet and satellite TV in addition to voice services so that it can compete with companies like Time Warner that provide a complete suite of communications and entertainment services. Alltel's sells DSL (1.5Mbps) service for $34.95 per month, but offers a discount of $15 if the customer also purchases Alltel's Connect Unlimited package. A customer that selects Alltel's Connect Unlimited package, can purchase Alltel's DSL 1.5Mbps service for only $19.95 per month. The customer can receive further discounts if the customer also purchases Alltel's satellite TV service (via Dish Network). Thus, if the customer buys Alltel's Connect Unlimited package plus Alltel's DSL 1.5 Mbps service plus Alltel's satellite TV video service, Alltel will provide an additional discount for DSL 1.5Mbps selling it for only $14.95 per month and selling 120 channels of satellite TV for an additional $34.99 per month. Alltel customers can purchase all three services (voice telephony, high speed internet, and cable TV) from Alltel for $104.89 per month. Voicemail can be added to the Alltel bundle for an additional $3.95.

By comparison, Time Warner offers a bundle of services including digital telephony (the $39.95 package described above with unlimited local and long distance calling), broadband internet (4.5 Mbps), and Digital Cable TV (150+ channels) plus one premium movie package (approximately 12 movie channels) for a bundled price of $111.95 per month. Voicemail can be added for $3.95.

David C. Blessing

79. Does Alltel's "Connect Unlimited Bundle" mentioned in response to Staff's First Set of Interrogatories, No. 23, provide functions that are different from those provided by the service offerings of cable telephone providers? If so, please list all such functions.

ANSWER:

No. The cable TV providers offer all of the functions that Alltel offers and offer additional custom calling functions that Alltel does not currently offer.

David C. Blessing

80. If two providers each offer a service with the same or similar functions, but the two providers use different technologies, would the two services be considered part of the same market for purposes of determining a market price? Please explain your answer.

ANSWER:

Yes. The market is two-way voice and data communications – not wireline voice or POTS or other. Therefore, consumers are largely indifferent to the type of technology that delivers the services desired provided that the service is of similar quality and price between the two technologies. For example, most customers are indifferent whether their voice telecommunications service is delivered via the telephone company's wireline facilities, the cable TV company's fiber/coax facilities, the wireless carrier's wireless facilities, or the VoIP carriers digital internet facilities provided that the quality and the price of the voice telecommunications service is similar among all of the different providers of the service. Competitors then seek to differentiate their voice telecommunications service from their rivals by offering promotional price discounts or by creating a perception among consumers that their voice telephony service provided via their type of technology is superior (e.g., fewer outages, fewer dropped calls, clear voice, etc.) to that of their rivals.

David C. Blessing

The following interrogatories address various types of competitors referenced in Alltel's response to Staff's First Set of Interrogatories, No. 38:

81. If Alltel's petition is approved and all other variables held constant, should an existing CLEC reseller's average gross margin per customer in Alltel Florida's service territory increase, decrease, or stay the same? Please explain your answer.

ANSWER:

Yes. If Alltel's petition is approved and all other variables are held constant, an existing CLEC reseller's average gross margin per customer in Alltel Florida's service territory should increase. A CLEC reselling Alltel's R1 service would see an increase in their gross margin provided that the reseller matched Alltel's price increase. For example, if the reseller purchases Alltel's 1R service at a 15% discount, the reseller would pay an average of $8.92 for a single line and sell it retail for $10.49 receiving a gross margin of $1.57 per customer assuming the reseller sells the service at Alltel's retail rate. If Alltel's 1R rate is rebalanced to an average rate of $16.49 then the CLEC reseller would pay $14.02 for a single line and sell it retail for $16.49 receiving an average gross margin of $2.47 per customer again assuming the reseller sells the service at Alltel's retail rate.

As the Commission noted in Order Number PSC-03-1469-FOF-TL in the large LEC rate rebalancing docket, "As evidenced by the results in other states that have engaged in rate rebalancing, the ILECs' proposals will make the residential market more economically attractive for CLECs, which should lead to an increase in choice of providers. This will be accomplished by increasing in the short term the rate at which residential service can be offered by competitors, leading to increased profit margins for CLECs serving residential customers." (See Order at page 23.)

David C. Blessing

82. If Alltel's petition is approved and all other variables held constant, should an existing wireless provider's average gross margin per customer in Alltel Florida's service territory increase, decrease, or stay the same? Please explain your answer.

ANSWER:

Yes. If Alltel's petition is approved and all other variables are held constant, the effect on the existing wireless provider's average gross margin per customer in Alltel Florida's service territory depends upon the wireless carrier's response to Alltel's R1 price increase. If the wireless carrier does not increase its price, its average gross margin per customer would stay the same, but the wireless provider's overall gross margin would increase to the extent that Alltel's R1 price increase caused more customers to view wireless service as a substitutable service for Alltel's R1 service and switched their local and long distance service to the wireless provider. While wireless carriers face competitive price pressure from other wireless carriers, they also face some competitive price pressure from the incumbent LEC because they are selling a substitutable voice telecommunications service. As the Commission noted in Order Number PSC-03-1469-FOF-TL in the large LEC rate rebalancing docket, wireless carriers compete with wireline carriers in the residential market; "...wireline companies are facing increased competition from providers using alternative technologies such as wireless, cable, and voice over internet protocol (VoIP). See FPSC Annual Report on Competition (June 30, 2003). (See Order at page 5.) If the incumbent LEC raises its price for R1 service, more customers may begin to view wireless service as an acceptable substitute for their wireline local and long distance calling and switch to the wireless carrier. The increase in customers would increase the wireless provider's overall gross margins. It is also possible that as Alltel's R1 price increases the competitive pressure on the wireless carriers to reduce prices would decrease which would allow the wireless carrier the option to either raise prices and improve average gross margins per customer or postpone any planned price decreases and preserve existing per customer gross margins for a longer period of time. As the Commission noted in the large LEC rate rebalancing order, "by increasing in the short term the rate at which residential service can be offered by competitors, leading to increased profit margins for CLECs serving residential customers." (See Order at page 23.)

David C. Blessing

83. If Alltel's petition is approved and all other variables held constant, should an existing VOIP provider's average gross margin per customer in Alltel Florida's service territory increase, decrease, or stay the same? Please explain your answer.

ANSWER:

Yes. If Alltel's petition is approved and all other variables are held constant, the effect on the existing VoIP-based provider's average gross margin per customer in Alltel Florida's service territory depends upon the VoIP-based providers response to Alltel's R1 price increase. If the VoIP-based provider does not increase its price, its average gross margin per customer would stay the same, but the VoIP-based provider's overall gross margin would increase to the extent that Alltel's R1 price increase causes more customers to view VoIP-based voice telephony as a substitutable service for Alltel's R1 service and switched their local and long distance service to the VoIP-based provider. While VoIP-based providers face competitive price pressure from other VoIP-based providers, they also face some competitive price pressure from the incumbent LEC because they are selling a substitutable voice telecommunications service. As the Commission noted in Order Number PSC-03-1469-FOF-TL in the large LEC rate rebalancing docket, VoIP-based providers compete with wireline carriers in the residential market; "...wireline companies are facing increased competition from providers using alternative technologies such as wireless, cable, and voice over internet protocol (VoIP). See FPSC Annual Report on Competition (June 30, 2003). (See Order at page 5.) If the incumbent LEC raises its price for R1 service, more customers may begin to view VoIP-based provider's service as an acceptable substitute for their wireline local and long distance calling and switch to the VoIP-based provider. The increase in customers would increase the VoIP-based provider's overall gross margins. It is also possible that as Alltel's R1 price increases the competitive pressure on the VoIP-based providers to reduce prices would decrease which would allow the VoIP-based provider the option to either raise prices and improve average gross margins per customer or postpone any planned price decreases and preserve existing per customer gross margins for a longer period of time. As the Commission noted in the large LEC rate rebalancing order, "by increasing in the short term the rate at which residential service can be offered by competitors, leading to increased profit margins for CLECs serving residential customers." (See Order at page 23.)

David C. Blessing

84. If Alltel's petition is approved and all other variables held constant, should an existing cable telephone provider's average gross margin per customer in Alltel Florida's service territory increase, decrease, or stay the same? Please consider both telecommunications offerings and service bundles that include telecommunications, and explain your answer.

ANSWER:

If Alltel's petition is approved and all other variables are held constant, the effect on the existing cable telephone providers average gross margin per customer in Alltel Florida's service territory depends upon the cable telephone provider's response to Alltel's R1 price increase. If the cable telephone provider does not increase its price, its average gross margin per customer would stay the same, but the cable telephone provider's overall gross margin would increase to the extent that Alltel's R1 price increase causes more customers to view cable telephone providers voice telephony as a substitutable service for Alltel's R1 service and switched their local and long distance service to the cable telephone provider. While cable telephone providers face competitive price pressure from other cable telephone providers, they also face some competitive price pressure from the incumbent LEC because they are selling a substitutable voice telecommunications service. As the Commission noted in Order Number PSC-03-1469-FOF-TL in the large LEC rate rebalancing docket, cable telephone providers compete with wireline carriers in the residential market; "...wireline companies are facing increased competition from providers using alternative technologies such as wireless, cable, and voice over internet protocol (VoIP). See FPSC Annual Report on Competition (June 30, 2003). (See Order at page 5) If the incumbent LEC raises its price for R1 service, more customers may begin to view cable telephone provider's service as an acceptable substitute for their wireline local and long distance calling and switch to the cable telephone provider. The increase in customers would increase the cable telephone providers overall gross margins. It is also possible that as Alltel's R1 price increases the competitive pressure on the cable telephone providers' to reduce prices would decrease which would allow the cable telephone provider the option to either raise prices and improve average gross margins per customer or postpone any planned price decreases and preserve existing per customer gross margins for a longer period of time. As the commission noted in the large LEC rate rebalancing order, "by increasing the short term the rate at which residential service can be offered by competitors, leading to increased profit margin for CLECs service residential customer." (See Order at page 23)

Alltel is not aware of any existing cable TV company currently providing voice telephony in any of Alltel's exchanges. However, Time Warner and Cox Communications have both announced via their websites that they intend to provide voice telephony in competition with Alltel in the exchanges where they currently provided cable TV. If Alltel's petition is approved, Time

Warner and Cox Communications will have a stronger incentive to provide voice telephony within Alltel's territory.

David C. Blessing

85. If Alltel's petition is approved and all other variables held constant, should an existing CLEC reseller's customer base in Alltel Florida's service territory increase, decrease, or stay the same? Please explain your answer.

ANSWER:

If Alltel's petition is approved and all other variables are held constant, an existing CLEC reseller's customer base in Alltel Florida's service territory should increase. As the Commission noted in Order Number PSC-03-1469-FOF-TL in the large LEC rate rebalancing docket, rebalancing rates will increase the choice of providers competing with the ILEC in the residential market. "As evidenced by the results in other states that have engaged in rate rebalancing, the ILECs' proposals will make the residential market more economically attractive for CLECs, which should lead to an increase in choice of providers." (See Order at page 23.) By extension, an increase in CLEC competition should also translate into an increase in each CLEC's customer base. Additionally, it should be noted that Alltel is not aware of any CLEC currently reselling Alltel's R1 service within Alltel's territory. However, if Alltel's petition is approved, CLEC resellers will have a stronger incentive to provide voice telephony within Alltel's territory and will increase their customer base.

David C. Blessing

86. If Alltel's petition is approved and all other variables held constant, should an existing wireless provider's customer base in Alltel Florida's service territory increase, decrease, or stay the same? Please explain your answer.

ANSWER:

If Alltel's petition is approved and all other variables are held constant, an existing wireless provider's customer base in Alltel Florida's service territory should increase. As the Commission noted in Order Number PSC-03-1469-FOF-TL in the large LEC rate rebalancing docket, rebalancing rates will increase the choice of providers competing with the ILEC in the residential market. "As evidenced by the results in other states that have engaged in rate rebalancing, the ILECs' proposals will make the residential market more economically attractive for CLECs, which should lead to an increase in choice of providers." (See Order at page 23.) By extension, an increase in CLEC competition should also translate into an increase in each wireless carrier's customer base because customers are likely to view wireless as a substitute service.

David C. Blessing

87. If Alltel's petition is approved and all other variables held constant, should an existing VOIP provider's customer base in Alltel Florida's service territory increase, decrease, or stay the same? Please explain your answer.

ANSWER:

If Alltel's petition is approved and all other variables are held constant, an existing VoIP provider's customer base in Alltel Florida's service territory should increase. As the Commission noted in Order Number PSC-03-1469-FOF-TL in the large LEC rate rebalancing docket, rebalancing rates will increase the choice of providers competing with the ILEC in the residential market. "As evidenced by the results in other states that have engaged in rate rebalancing, the ILECs' proposals will make the residential market more economically attractive for CLECs, which should lead to an increase in choice of providers." (See Order at page 23.) By extension, an increase in CLEC competition should also translate into an increase in each VoIP-based provider's customer base. Additionally, it should be noted that Alltel is aware that a number of VoIP-based providers (Verizon VoiceWing, Skype, and Vonage, Packet 8, and likely others) are currently able to provide competitive voice services within Alltel's territory but, Alltel does not know the current size of their customer base. However, if Alltel's petition is approved, the VoIP-based providers will have a stronger incentive to provide voice telephony within Alltel's territory and will increase their customer base to the extent customers view their service as a viable substitute for wireline service.

David C. Blessing

88. If Alltel's petition is approved and all other variables held constant, should an existing cable telephone provider's customer base in Alltel Florida's service territory increase, decrease, or stay the same? Please consider both telecommunications offerings and service bundles that include telecommunications, and explain your answer.

ANSWER:

If Alltel's petition is approved and all other variables are held constant, an existing cable telephone provider's customer base in Alltel Florida's service territory should increase. As the Commission noted in Order Number PSC-03-1469-FOF-TL in the large LEC rate rebalancing docket, rebalancing rates will increase the choice of providers competing with the ILEC in the residential market. "As evidenced by the results in other states that have engaged in rate rebalancing, the ILECs' proposals will make the residential market more economically attractive for CLECs, which should lead to an increase in choice of providers." (See Order at page 23.) By extension, an increase in CLEC competition should also translate into an increase in each cable telephone provider's customer base. Additionally, it should be noted that Alltel is not aware of any cable TV provider that is currently providing competitive voice services within Alltel's territory but, Alltel does know that both Time Warner Communications and Cox Communications have expressed their intention to begin providing competitive voice services within Alltel's territory. If Alltel's petition is approved, Time Warner, Cox, and other cable TV telephone providers will have a stronger incentive to provide voice telephony within Alltel's territory and will increase their customer base.

The cable TV telephone providers should have greater success than most CLECs in increasing their customer base because they are able to offer broadband internet and cable TV in addition to voice services. Such bundles of services (cable TV, broadband internet, and voice telephony) have proven extremely popular with customers as evidenced by the large penetration levels cable TV companies have made in a number of more developed markets. For example, GCI, in Alaska offers a cable TV, voice telephony, broadband internet, and wireless phone service and has been able to capture nearly 50% of the Anchorage, Alaska market. Cox Communications offers cable TV, voice telephony, and broadband internet and has been able to capture 40% of the voice market in Orange County, CA and Omaha, NE. A noted industry analyst stated,

> "The threat [to the phone companies] from cable is not theoretical," says Scott Cleland, CEO of Precursor, a research firm that serves institutional investors. "It is real, and it is devastating." He notes that in Orange

> County, California, and Omaha, Cox [Cable] has a 40 percent market share for voice.[1]

I anticipate that when Time Warner and Cox offer voice telephony in addition to cable TV and broadband internet in Alltel's exchanges that they will have similar success.

David C. Blessing

[1] See Pethokoukis, James. "War of the Wires." U.S. News & World Report. Sept. 27, 2004. <http://www.usnews.com/usnews/issue/040927/tech/27cable.htm>.

89. If Alltel's petition is approved and all other variables held constant, should an existing CLEC reseller's cash flow from operations in Alltel Florida's service territory increase, decrease, or stay the same? Please explain your answer.

ANSWER:

Yes. If Alltel's petition is approved and all other variables are held constant, an existing CLEC reseller's cash flow from operations in Alltel Florida's service territory should increase assuming that more customers means more cash flow. Additionally, per my response to question number 81, if the CLEC reseller's gross margin increases, then the CLEC reseller's cash flow (cash receipts minus disbursements from telecommunications assets) should increase as well.

David C. Blessing

90. If Alltel's petition is approved and all other variables held constant, should an existing wireless provider's cash flow from operations in Alltel Florida's service territory increase, decrease, or stay the same? Please explain your answer.

ANSWER:

Yes. If Alltel's petition is approved and all other variables are held constant, an existing wireless provider's cash flow from operations in Alltel Florida's service territory should increase assuming that more customers means more cash flow. Additionally, per my response to question number 82, if the wireless carrier's gross margin increases, then the wireless carrier's cash flow (cash receipts minus disbursements from telecommunications assets) should increase as well.

David C. Blessing

91. If Alltel's petition is approved and all other variables held constant, should an existing VOIP provider's cash flow from operations in Alltel Florida's service territory increase, decrease, or stay the same? Please explain your answer.

ANSWER:

Yes. If Alltel's petition is approved and all other variables are held constant, an existing VOIP provider's cash flow from operations in Alltel Florida's service territory should increase assuming that more customers means more cash flow. Additionally, per my response to question number 83, if the VoIP provider's gross margin increases, then the VoIP provider's cash flow (cash receipts minus disbursements from telecommunications assets) should increase as well.

David C. Blessing

92. If Alltel's petition is approved and all other variables held constant, should an existing telephone provider's cash flow from operations in Alltel Florida's service territory increase, decrease, or stay the same? Please consider both telecommunications offerings and service bundles that include telecommunications, and explain your answer.

ANSWER:

Yes. If Alltel's petition is approved and all other variables are held constant, an existing telephone provider's (CLEC reseller, wireless, VoIP, cable TV, or other) cash flow from operations in Alltel Florida's service territory should increase assuming that more customers means more cash flow. If the telephone provider's gross margin increases, then the telephone provider's cash flow (cash receipts minus disbursements from telecommunications assets) should increase as well.

David C. Blessing

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition To Reduce Intrastate Switched Network Access Rates In A Revenue Neutral Manner Pursuant to Section 364.164, Florida Statutes	)	Docket No.: 050693-TL Dated: 11.28.05

ALLTEL'S ANSWERS TO STAFF'S
FOURTH SET OF INTERROGATORIES (NOS. 93-105)

Pursuant to Rule 25-22.034, Florida Administrative Code and Rule 1.350, Florida Rules of Civil Procedure, Alltel Florida, Inc. ("Alltel"), by and through undersigned counsel, hereby answers Staff's Fourth Set of Interrogatories as set forth below.

93. For the following questions, please refer to ALLTEL's response to Citizens' First Set of Interrogatories, No. 1(No. 1) and ALLTEL's response to Staff's Second Set of Interrogatories, No. 66 (No. 66).

a. Why did the number of Florida Lifeline customers decrease from 2,670 in 2004 to 2,445 in 2005 (as shown in No. 1)? Explain your answer.

b. Should the date in No. 66 (a) be September 30, 2005 rather than September 30, 2004?

c. Assuming the date should be September 30, 2005, please explain the rise in Lifeline customers from 2,445 on January 1, 2005 to 3,067 as of September 30, 2005, e.g., seasonal variation, increased Lifeline promotion, etc.?

ANSWER:

a. The 2,670 report for 2004 was incorrect and should have been 1,676 which means the number of Lifeline subscribers increased from 2004 to 2005.

b. No. The number of Lifeline customers as of September 30, 2005 is 3,322.

c. The number of Lifeline subscribers increased from January 1, 2005 to September 30, 2005. Alltel believes the increase can be attributed to an increased awareness of the Lifeline program.

Bettye Willis

94. For the following question, please refer to ALLTEL's response to Citizens' Second Set of Requests for Production of Documents, No. 20. Why does ALLTEL not forecast its Florida access lines separately from its other wireline subsidiaries? Explain your answer.

ANSWER:

In its forecasting process, Alltel initially considers current trends, known impacts such as rebalancing, and other factors that will impact subscribership and applies those impacts at the exchange level where appropriate. The company then applies other factors it would normally consider in its forecasting process to all Alltel Corp. exchanges resulting in a forecast of total wireline access lines. While Alltel begins its process by looking at factors at the exchange level, there are overall corporate considerations that are applied at a higher level that result in a total company forecast of access line growth or decline. It the company's response to Citizens' Second Set of Request for Production of Documents, No. 20, exchange-specific forecast data was provided for every Alltel Florida exchange.

Bettye Willis

95. For the following questions, please refer to ALLTEL's response to Staff's First Set of Interrogatories, No. 16. The response shows that the number of residential access lines decreased from 74,693 in 2003 to 73,653 in 2004.

a. Why did the access lines decrease? Explain your answer.

b. Does ALLTEL believe the number of access lines will increase or decrease in 2005? Explain your answer.

ANSWER:

a. Residential access lines decreased from 2003 to 2004 for a variety of reasons including customers going wireless only, low usage of wireline service, customers moving from an Alltel exchange and disconnects for non-payment.

b. Alltel believes the number of residential lines will decrease. Alltel continues to see an increase in disconnects (primarily for reasons given above) and a decrease in gross additions, resulting in negative net additions, or access line decreases. This trend is confirmed from actual data through October 31, 2005.

Bettye Willis

96. For the following questions, please refer to ALLTEL's response to Staff's First Set of Interrogatories, No. 17. The response shows that the number of single-line business access lines increased from 8,188 in 2003 to 8,268 in 2004.

a. Why did the access lines increase? Explain your answer.

b. Does ALLTEL believe the number of access lines will increase or decrease in 2005? Explain your answer.

ANSWER:

a. Business access lines increased from 2003 to 2004 due to customer migration from Centrex services to single dedicated access lines to utilize DSL service.

b. Alltel believes the number of access lines will decrease in 2005 because of VoIP technology offering alternate solutions for the business sector.

Bettye Willis

97. For the following question, please refer to ALLTEL's response to Staff's First Set of Interrogatories, No. 22(e). How did ALLTEL determine why a customer disconnected service, e.g., request for porting, question asked by customer service personnel, etc.?

ANSWER:

Our customer service representatives ("CSRs") ask for a reason whenever taking an order to disconnect service. That reason code is placed on the order to remove service. In addition, CSRs who take orders from other carriers to port an Alltel number also place a reason code on the service order to indicate the customer is disconnecting service and porting his or her number.

Bettye Willis

98. For the following questions, please refer to ALLTEL's response to Staff's First Set of Interrogatories, No. 23.

a. What percentage of residential access lines are subscribed to the Connect Unlimited bundle?

b. What percentage of business access lines are subscribed to the Connect Unlimited bundle?

c. What percentage of residential access lines are subscribed to the "Dime All of the Time" calling plan?

d. What percentage of business access lines are subscribed to the "Dime All of the Time" calling plan?

ANSWER:

The answer to this interrogatory contains proprietary confidential business information and will be filed with the Clerk's office under separate cover and a notice of intent to request confidential classification.

99. For the following questions, please refer to ALLTEL's response to Staff's First Set of Interrogatories, No. 32 and B. Willis Exhibit No. BJW-1. The interrogatory response states that the HAI 5.0a model estimated the cost of ALLTEL's intrastate switched access as $0.03243 while the average price is $0.1132294.

a. Is $0.03243 an originating or terminating per minute cost, or is it a total of one minute of originating access and one minute of terminating access? Explain your answer.

b. Is the average price of $0.1132294, as shown in Exhibit BJW-1, a total of one minute of originating access and one minute of terminating access?

c. Does the average price of $0.1132294 include any allocation or contribution toward the recover of joint and common costs or administrative overhead? Explain your answer.

d. Does ALLTEL calculate its own average per minute price of intrastate switched access? If so, how is it calculated and what is it?

ANSWER:

a. The HAI model develops per minute costs using DEMs (dial equipment minutes) which includes both originating and terminating minutes. Therefore, the $0.03243 is the average costs of one originating or terminating minute of use.

b. Yes.

c. Yes. Joint and common costs, both direct assigned and allocated, are included in the cost studies used to set rates.

d. Alltel calculates an average price based on the per minute rate elements (common line, local switching, interconnection, tandem switching, tandem switched termination, and tandem witched facility) and 10 miles of transport. Currently the rate is $0.05937 for terminating and $0.05157 for originating.

Bettye Willis

100. For the following questions, please refer to ALLTEL's response to Staff's Second Set of Interrogatories, No. 55.

a. What percentage of residential access lines subscribe to ALLTEL Florida's DSL?

b. What percentage of business access lines subscribe to ALLTEL Florida's DSL?

c. To what percentage of residential access lines is ALLTEL Florida's DSL available?

d. To what percentage of business access lines is ALLTEL Florida's DSL available?

e. **If DSL is not available in all of ALLTEL Florida's wire centers, please list the wire centers where DSL is not available.**

ANSWER:

The answer to this interrogatory contains proprietary confidential business information and will be filed with the Clerk's office under separate cover and a notice of intent to request confidential classification.

101. Please provide total intrastate switched access originating and terminating revenue for the years 2000, 2001, 2002, 2003, and 2004.

ANSWER:

The answer to this interrogatory contains proprietary confidential business information and will be filed with the Clerk's office under separate cover and a notice of intent to request confidential classification.

102. For the following questions, please refer to ALLTEL witness Willis' Amended Direct Testimony page 13, beginning on line 17 and concluding on page 14, line 6.

a. Has ALLTEL estimated any repression (decrease) or stimulation (increase) in demand for basic residential access lines for the second and third rate increase increments? If so, how, and what are the results. If not, why not. Please fully explain your answer.

b. Has ALLTEL estimated any repression (decrease) or stimulation (increase) in demand for single-line business access lines for the second and third rate increase increments? If so, how, and what are the results. If not, why not. Please fully explain your answer.

c. Which non-recurring service charges will be increased, by how much, and at what intervals?

d. Has ALLTEL estimated any repression (decrease) or stimulation (increase) in demand for the increased non-recurring service charges for the second and third increase increments? If so, how, and what are the results. If not, why not. Please fully explain your answer.

e. Has ALLTEL estimated any repression (decrease) or stimulation (increase) in demand for intrastate switched access for the second and third rate decrease increments? If so, how, and what are the results. If not, why not. Please fully explain your answer.

f. If the Commission approves ALLTEL's petition, what are the dates of the first, second and third increments of the rate changes? For this question, assume January 1, 2006 as the date of the first rate change.

ANSWER:

a. Alltel did not perform a formal study of the impact of the first, second and third rate increases on consumer demand for its basic services. Alltel estimates that the demand for its basic service will decrease as the rate increases. Alltel expects that as the price increases the value of the service will decrease for customers compared to services offered by wireless carriers, VoIP providers, and CLECs that are bundled with other features. Specific estimated impacts will be considered when Alltel prepares its 2007 and 2008 access line growth/decline forecast.

b. See response for a.

c. Business Non-recurring Charge Increases:

Charge	Current Rate	Increment 1	Increment 2	Increment 3
Primary Svc Order	$22.19	$2.81	$2.50	$2.50
Secondary Svc Order	$15.13	$2.87	$2.90	$2.85
Premise Visit	$14.63	$5.37	$4.00	$4.00
Central Office Work	20.18	2.57	$1.15	$1.10

Residential Non-recurring Charge Increases:

Charge	Current Rate	Increment 1	Increment 2	Increment 3
Primary Svc Order	$19.17	$1.73	$1.90	$0.20
Secondary Svc Order	$11.09	$1.81	$1.35	$0.75
Premise Visit	$14.63	$5.22	$1.75	$3.40
Central Office Work	$20.18	$2.67	$0.75	$1.40

d. Alltel did not perform a formal study on demand for these services as a result of the price increases, however, as gross additions decrease we will see a corresponding decrease in non-recurring charges. In addition, as competition increases, Alltel may have to waive certain non-recurring charges in order to be competitive, resulting in a decrease of non-recurring revenues.

e. No. All other things being equal, Alltel does not believe the decrease in access rates alone will significantly impact demand for access minutes of use. The increase in local rates must be considered along with the decrease in access rates for there to be a measurable impact to demand for intrastate switched access.

f. If the Commission approves Alltel's rebalancing plan, the first rate increases will take place in the first quarter of 2006, the second rate increases in the first quarter of 2007, and the third rate increases in the first quarter of 2008.

Bettye Willis

103. Please identify the number of DSL lines in service as of year-end 2000 through 2004, and as of August 2005.

ANSWER:

The answer to this interrogatory contains proprietary confidential business information and will be filed with the Clerk's office under separate cover and a notice of intent to request confidential classification.

104. For purposes of the following request, please refer to Alltel's response to Staff Interrogatory 40.

a. Referring to your response to 40(a), does the 1995-1996 default data for access lines reflect Alltel Florida's actual 1995-1996 access lines in service?

b. If the response to (a) is negative, please identify how the HAI developers arrived at default access line values for Alltel Florida, for use in the model.

c. Referring to your response to 40(d), did Alltel examine the model's total residential DEM proxy value to determine if this proxy was reasonable to use for Alltel?

d. If the response to (c) is affirmative, please describe the analysis that was conducted and its results.

e. Referring to 40(j), please explain how "the company will still pay tandem switching costs" if Alltel Florida does not own any tandems.

f. Referring to 40(j), please explain how "even though ALLTEL Florida doesn't have a tandem those functions performed by the tandem are still required".

g. Is it Alltel's position that a forward-looking network to serve Alltel Florida's service area would consist of tandem switches, as opposed to the architecture currently in place? Please explain.

h. Given that all of the traffic parameters used in the HAI model run reflect the model defaults, how does Alltel know whether the switched access cost per minute derived by the model is representative of Alltel Florida's costs?

i. Does Alltel Florida currently have in place more access lines than are reflected in the HAI model run submitted in this proceeding?

j. Please describe what review and analysis Alltel conducted to confirm or disconfirm the reasonableness of the wire center boundary data for Alltel contained in the HAI model.

k. To the extent not provide in response to a prior request, please describe what review and analysis was conducted to ascertain the reasonableness of the default inputs and parameters in the HAI model as applied to Alltel Florida.

ANSWER:

a. No. The most accurate way for the HAI Model to reflect an ILEC's actual 1995-1996 access lines in service is to use ARMIS data. However, Alltel Florida does not currently file ARMIS reports with the FCC and did not File ARMIS reports in 1995-1996 either. In the absence of ARMIS data, the lines used in the HAI model are approximations of Alltel Florida's line counts developed by the HAI model using data from NECA USF Loops filing: 1996 data; USTA report: 1995 data; RUS report: 1995 data; USF Data Request: 1993 data; or ARMIS-based line factors.

b. HAI Consulting, Inc. provides the following explanation regarding how the HAI Model Release 5.0a calculates lines by study area. Additionally, Appendix C to the HAI Model Description documentation provides a flow chart of the process. (See HAI Model Release 5.0a, Model Description, HAI Consulting, Inc., Boulder, Colorado, Revised February 16, 1998, Section 5.1, p. 24 and Appendix C, p.2.)

5.1 Line Type Counts by Study Area

Counts of access lines by type (i.e., residence, single line business, multiline business, public telephone and special access lines) for each distinct NECA Study Area for calendar year 1996 are developed from several data sources. These include:

1. ARMIS 43-08: 1996 data, released 10/01/97;
2. ARMIS 43-01: 1996 data, released 10/01/97;
3. NECA USF Loops filing: 1996 data;
4. USTA report: 1995 data;
5. RUS report: 1995 data;
6. USF Data Request: 1993 data;
7. ARMIS-based line factors.

The rules by which the best of these data are selected are as follows.

a) When NECA Study Area name matches exactly ARMIS Company name, populate line types directly from ARMIS data for business lines (43-08), single line business lines (43-01), residence lines (43-08), special access lines (43-08), and public lines (43-08) data.

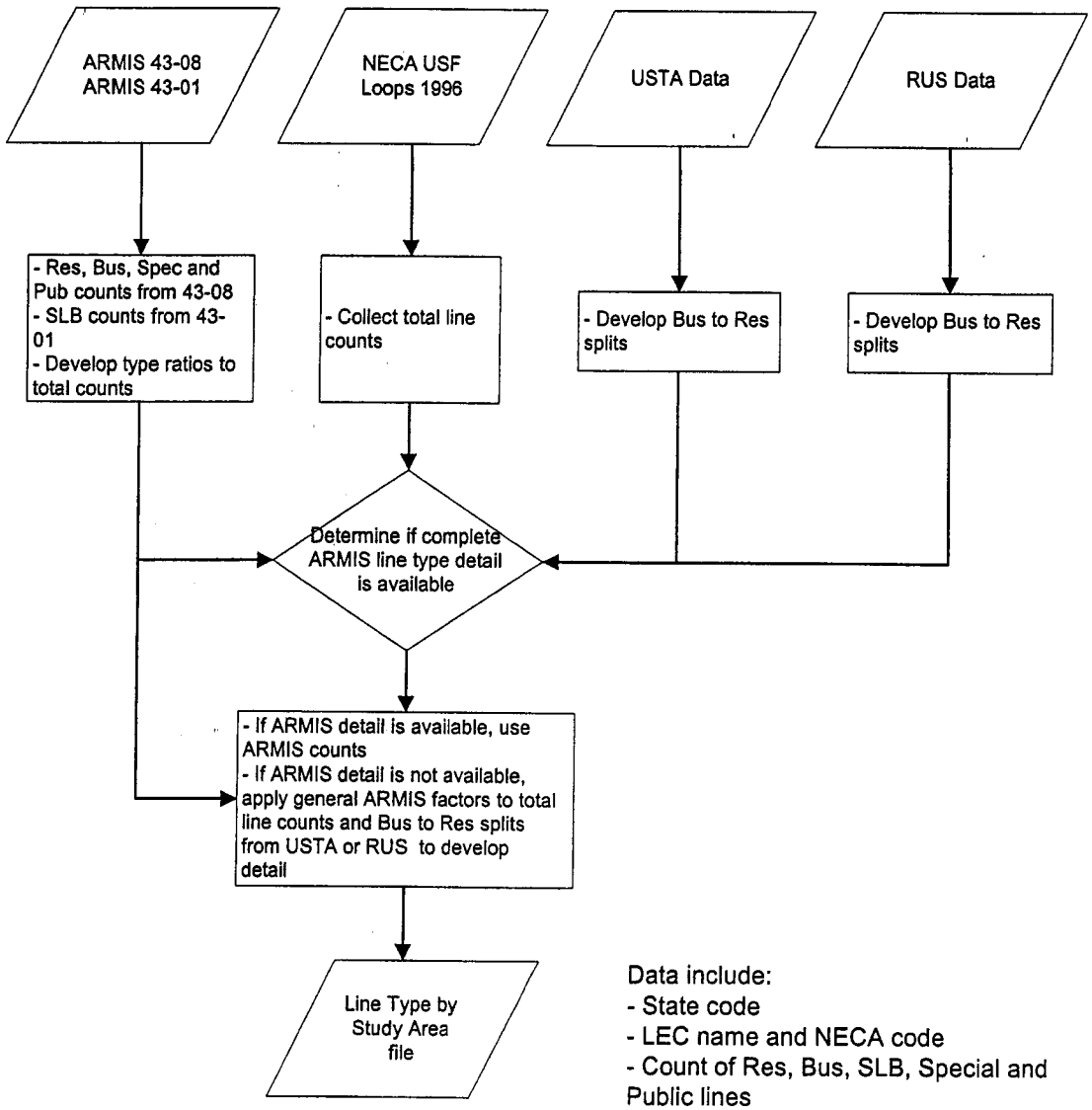
b) For remaining ARMIS Companies, determine counts of line types for NECA Study Area name by applying ARMIS line type distributions to total reported NECA USF Loops.

c) For non-ARMIS Companies, match NECA Study Area name to best available data source (i.e., USTA, RUS or USF Data Request) for residence and business line splits.

d) When no company-specific line type data exist, apply average ARMIS line type distributions to reported NECA USF Loops for NECA Study Area name.

On page 2 of Appendix C of the HAI Model documentation, HAI Consulting, Inc, provides the following flow chart showing how the HAI Model calculates line type counts by study area.

LINE TYPE COUNTS BY STUDY AREA



Data include:
- State code
- LEC name and NECA code
- Count of Res, Bus, SLB, Special and Public lines

c. No.
d. Not applicable.
e. As a subtending ILEC, Alltel Florida pays tandem switching costs to the tandem owner (BellSouth, Sprint, or Verizon) and passes those tandem charges on to the IXC in addition to Alltel's own charges to recover the cost of transport and termination (end office local switching). The HAI model produces switching costs that include tandem switching costs that approximate the tandem switching charges the tandem owners bill Alltel Florida. Thus, the proxy switching rates developed by the HAI model appropriately include the tandem switching costs.
f. See response to question 104(e) above.
g. Alltel's current network architecture is a traditional tandem switched network design; however, Alltel Florida does not own any tandems in Florida and therefore, must purchase tandem switching from the ILEC tandems owned by BellSouth, Verizon, or Sprint to which the Alltel switches subtend. Since Alltel Florida purchases and uses tandem switching from the ILEC tandem owner, it is appropriate to include tandem switching costs in the overall composite cost of Alltel Florida's switched access rate. Tandem switching is part of the Alltel Florida forward-looking cost of providing switched access and is appropriately included in the forward looking results produced by HAI cost model.
h. The HAI model has been reviewed and scrutinized by numerous parties in multiple state and federal cost proceedings since its development ten years ago. Countless revisions have been made to the HAI cost model to enable the HAI cost model to forecast reasonable estimates of LEC costs.
i. Yes. Alltel Florida currently has more access lines in service than are reflected in the HAI model run.
j. Alltel would have compared the wire center boundary data contained in the HAI model to information contained in other Alltel costs studies run for other states to determine if the data was reasonable for Alltel Florida.
k. Alltel compared the HAI cost model defaults inputs to the known Alltel inputs. Where the Alltel inputs were close to the HAI cost model inputs, Alltel used HAI cost model default inputs because they were a reasonable representation of Alltel Florida's costs.

David C. Blessing

105. For purposes of the following request, please refer to Alltel's response to staff's Interrogatories No. 11 and 85.

a. Is the number of resold lines identified in response to Interrogatory No. 11 only business lines?

b. If the response to (a) is negative, please provide a breakdown of this amount between residential and business.

c. Please identify the entities to whom these lines are being provided.

d. Please identify how many resold lines are being provided to each of the entities identified in response to (c).

e. Does the company know whether any of the entities identified in response to (c) are providing prepaid local service?

f. If the response to (e) is affirmative, please identify which entities are providing prepaid local service.

ANSWER:

The answer to this interrogatory contains proprietary confidential business information and will be filed with the Clerk's office under separate cover and a notice of intent to request confidential classification.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)	
To Reduce Intrastate Switched Network	)	
Access Rates In A Revenue Neutral	)	Docket No.: 050693-TL
Manner Pursuant to Section 364.164,	)	Dated: 11.28.05
Florida Statutes	)	
	)	

ALLTEL'S ANSWERS TO STAFF'S
FIFTH SET OF INTERROGATORIES (NOS. 106-112)

Pursuant to Rule 25-22.034, Florida Administrative Code and Rule 1.350, Florida Rules of Civil Procedure, Alltel Florida, Inc. ("Alltel"), by and through undersigned counsel, hereby answers Staff's Fifth Set of Interrogatories as set forth below.

106. Does the total of approximately 2,200 customers include any customers that disconnected service due to moving out of Alltel's Florida service territory?

ANSWER:

No.

Bettye Willis

107. If so, under which category appearing in response to Staff's First Request for Production of Documents, No. 12, are the type of disconnects described in 1. above reflected?

ANSWER:

N/A

Bettye Willis

108. If customers disconnecting due to moving from Alltel's service territory are not reflected in response to Staff's First RPD, please provide the number of these disconnects for each month from January 2004 through August 2005.

ANSWER:

The answer to this interrogatory contains proprietary confidential business information and will be filed with the Clerk's office under separate cover and a notice of intent to request confidential classification.

109. Referring to RPD No. 12, please explain the differences between each of the following categories appearing on the document:

a. Disconnect due to competition – voice
b. Disconnect due to customer going to wireless only
c. Customer Lost to CLEC--# Not Ported
d. Customer Lost to CLEC--# Ported
e. Low Usage – Customer Line Usage is Low
f. Port to ACI Wireless
g. Port to Other Wireless
h. Porting of Type 1 Circuit

ANSWER:

a. Customer is leaving for another provider of wireline service.
b. Phone has been replaced with wireless service. The customer is not porting number but is calling to disconnect wireline service.
c. Customer moves service to a CLEC without keeping same number.
d. Customer moves service to a CLEC and is taking their current number to new provider.
e. Customer rarely uses wireline phone – is not leaving specifically for another wireline provider or wireless provider.
f. Customer is porting wireline number to ACI wireless.
g. Customer is porting wireline number to a wireless carrier other than ACI wireless such as Cingular.
h. Type 1 numbers porting out to another wireless carrier.

Bettye Willis

For the following question please refer to response to Staff's Second Set of Interrogatories, #50 and to RPD No. 12. This response indicates that some Alltel business customers in Florida have ported their numbers to wireless carriers.

110. Please identify the number of business customers by month and by category as reflected on RPD No. 12 that have ported their numbers to wireless carriers.

ANSWER:

01/2004	0
02/2004	0
03/2004	0
04/2004	0
05/2004	0
06/2004	0
07/2004	0
08/2004	0
09/2004	0
10/2004	0
11/2004	0
12/2004	0
01/2005	0
02/2005	0
03/2005	0
04/2005	1
05/2005	1
08/2005	1

Bettye Willis

For the following questions please refer to response to Staff's Second Set of Interrogatories, #71.

111. Please provide the number of Alltel residential customers currently who do not subscribe to Alltel long distance service or the long distance service of its affiliate.

ANSWER:

The answer to this interrogatory contains proprietary confidential business information and will be filed with the Clerk's office under separate cover and a notice of intent to request confidential classification.

For the following questions please refer to response to Citizens' First Request for Production of Documents entitled Minutes and Messages Originating Intrastate Toll. In column A of the document under Carrier Name is a list of Carriers designated as Alltel and followed by several entries designated as Carrier 1, Carrier 2, etc.

112. Are any of the numerically designated Carriers in any way affiliated with Alltel? If so, how many?

ANSWER:

Yes. One of the numerically designated carriers is an Alltel Florida affiliate.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition To Reduce Intrastate Switched Network Access Rates In A Revenue Neutral Manner Pursuant to Section 364.164, Florida Statutes	)	Docket No.: 050693-TL Dated: 10.17.05

ALLTEL'S RESPONSE TO STAFF'S FIRST REQUESTS FOR PRODUCTION OF DOCUMENTS (NOS. 1-20)

Pursuant to Rule 28-106.206, Florida Administrative Code, Alltel Florida, Inc. ("Alltel"), by and through its undersigned counsel, hereby responds to Staff's First Requests for Production of Documents as set forth below.

DOCUMENTS REQUESTED

1. Please provide those documents identified in response to Interrogatory No. 1.

RESPONSE:

Copies of the requested documents are contained on a CD labeled : 050693-TL, Staff's First RPD, Nos. 1-7, served on Staff Counsel under separate cover pursuant to the Order Establishing Procedure.

2. Please provide those documents identified in response to Interrogatory No. 2

RESPONSE:

Copies of the requested documents are contained on a CD labeled : 050693-TL, Staff's First RPD, Nos. 1-7, served on Staff Counsel under separate cover pursuant to the Order Establishing Procedure.

3. Please provide those documents identified in response to Interrogatory No. 3.

RESPONSE:

Copies of the requested documents are contained on a CD labeled : 050693-TL, Staff's First RPD, Nos. 1-7, served on Staff Counsel under separate cover pursuant to the Order Establishing Procedure.

4. Please provide those documents identified in response to Interrogatory No. 4.

RESPONSE:

Copies of the requested documents are contained on a CD labeled : 050693-TL, Staff's First RPD, Nos. 1-7, served on Staff Counsel under separate cover pursuant to the Order Establishing Procedure.

5. Please provide those documents identified in response to Interrogatory No. 5.

RESPONSE:

Copies of the requested documents are contained on a CD labeled: 050693-TL, Staff's First RPD, Nos. 1-7, served on Staff Counsel under separate cover pursuant to the Order Establishing Procedure.

6. Please provide those documents identified in response to Interrogatory No. 6.

RESPONSE:

Copies of the requested documents are contained on a CD labeled: 050693-TL, Staff's First RPD, Nos. 1-7, served on Staff Counsel under separate cover pursuant to the Order Establishing Procedure.

7. Please provide those documents identified in response to Interrogatory No. 7.

RESPONSE:

Copies of the requested documents are contained on a CD labeled: 050693-TL, Staff's First RPD, Nos. 1-7, served on Staff Counsel under separate cover pursuant to the Order Establishing Procedure.

8. Please provide any documents that support your response to Interrogatory No. 13(b).

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's First Notice of Intent to Request Confidential Classification. The file is a PDF file named: Staff First RPD, No. 8 (BFR).

9. Please provide all cost studies identified in response to Interrogatory No. 20.

RESPONSE:

The documents responsive to this request are in Exhibit No. ___ (DCB-4), which was filed with the prepared direct testimony of David C. Blessing, and in the confidential CD produced in response to Staff's First RPD, Nos. 19a, b and c.

10. Please provide any documents that support your response to Interrogatory No. 21.

RESPONSE:

The document responsive to this request is Table No. 7 in Exhibit No. __ (DCB-O), a copy of which was filed with the direct testimony of David C. Blessing.

11. Referring to the direct testimony of ALLTEL witness Blessing, page 12, provide the 2004 cost study and all supporting work papers referred to in footnote 7.

RESPONSE:

The documents responsive to this request are in Exhibit No. ___ (DCB-04), which was filed with the direct testimony of David C. Blessing.

12. Please provide any documents that support your response to Interrogatory No. 22.

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's First Notice of Intent to Request Confidential Classification. The file is named: Staff First RPD, No. 12 (disconnects).

13. Please provide any documents that support your response to Interrogatory No. 25.

RESPONSE:

No documents were used in preparing the response to Interrogatory No. 25.

14. Please provide any documents that support your response to Interrogatory No. 28.

RESPONSE:

The documents responsive to this request are included in Alltel's response to Staff's First RPD, No. 19b.

15. Please provide any documents that support your response to Interrogatory No. 29.

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative

Services, together with Alltel's First Notice of Intent to Request Confidential Classification. The file is named: Staff First RPD, No. 15.

16. Referring to the direct testimony of ALLTEL witness Blessing, page 16, lines 1-7, please provide all work papers and supporting documents related to the inputs discussed herein.

RESPONSE:

The Alltel Florida company specific inputs can be located in Exhibit No. __ (DCB-4), pages 72 to 74. In addition, a complete list of all inputs (both ALLTEL Florida company specific and HAI 5.0a default) can be found on Exhibit No. ___ (DCB-4), pages 75 to 94, which was filed with the prepared direct testimony of David C. Blessing. See also documents produced in response to Request Nos. 19a, b and c.

17. Referring to the direct testimony of ALLTEL witness Blessing, page 46, lines 13-18, please provide analogous data reflecting the demographics in ALLTEL's service territory.

RESPONSE:

There are approximately 86,000 households in the exchanges served by Alltel Florida. Alltel does not possess analogous data regarding the number of households in Alltel Florida exchanges that subscribe to cable TV or broadband, nor does it have data regarding the average bill for cable TV or broadband service within Alltel's territory.

18. Referring to the direct testimony of ALLTEL witness Blessing, page 49, lines 17-19, please provide (a) the derivation of the weighted average new 1R rate and (b) the calculation that supports that "only 20% of Alltel's customers paying an average of $1.60 more than that on a monthly basis."

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative

Services, together with Alltel's First Notice of Intent to Request Confidential Classification. The file is an excel file named: Staff First RPD, No. 18.

19. Referring to Exhibit DCB-0, Table 1, HAI 5.0a results, please provide:

(a) the HAI 5.0a model run with ALLTEL modified inputs that support the values on Table 1, on CD;

(b) the HAI 5.0a model with HAI defaults, on CD;

(c) the HAI 5.0a user documentation;

(d) a complete printout showing all discrete outputs of the HAI 5.0a model run with ALLTEL modified inputs;

(e) a derivation of the $.110222 average current access rate, and a reconciliation of this value with that shown on Exhibit BJW-1; and

(f) a derivation of the $.057362 average proposed access rate, and a reconciliation of this values with that shown on Exhibit BJW-5.

RESPONSE:

(a) The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's First Notice of Intent to Request Confidential Classification. The responsive excel file is in a zip folder: Staff First RPD, No 19a Company Specific Inputs.

(b) The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's First Notice of Intent to

Request Confidential Classification. The responsive excel file is in a zip folder named: Staff RPD, No. 19b Default Scenario.

(c) The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's First Notice of Intent to Request Confidential Classification. The files are in a zip folder named: Staff First RPD, No. 19c HAI Documentation.

(d) The Alltel Florida company specific inputs can be located in Exhibit No. ___ (DCB-4), pages 72 to 74. In addition, a complete list of all inputs (both Alltel Florida company specific and HAI 5.0a default) can be found on Exhibit No. ___ (DCB-4), pages 75 to 94.

(e) The value $.110222 shown in Table 1 of DCB-0 is incorrect. The value shown on Exhibit BJW-1 is the correct value.

(f) The value $.057362 shown in Table 1 of DCB-0 is incorrect. The value shown on Exhibit BJW-5 is the correct value.

20. Referring to Exhibit DCB-4:

(a) On page 1 it is indicated that Monthly Line Cost is the sum of costs of loop plus port plus transport plus usage. To the extent not provide in response to POD 19(d), provide the derivations of these amounts.

(b) On page 1 it is indicated that Residential Line and Business Line costs come from Worksheet USF. Provide this worksheet, and explain how the calculations were performed.

(c) Referring to page 55, please provide derivations and supporting documents for the corporate overhead factor and the other taxes factor.

RESPONSE:

(a) The ALLTEL Florida company specific outputs showing that the Monthly Line Cost is the sum of costs of loop plus port plus transport plus usage can be located in Exhibit No. ___ (DCB-4), pages 24 to 25. Additionally, the outputs are shown by exchange the excel file named Staff First RPD, No. 19a company specific inputs, worksheet tab "Investment Input", cells HN1:HV29, which contains proprietary confidential business information and is included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's First Notice of Intent to Request Confidential Classification.

(b) The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's First Notice of Intent to Request Confidential Classification. The file is named: Staff First RPD, No. 20b.

(c) The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's First Notice of Intent to Request Confidential Classification. The file is named: Staff First RPD, No. 20c.

DATED this 17th day of October, 2005.

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ATTORNEYS FOR
ALLTEL FLORIDA, INC.

CERTIFICATE OF SERVICE

I hereby certify that a true and correct of the foregoing was served by hand delivery and electronic mail this 17th day of October, 2005, to the following:

Jason Rojas
Florida Public Service Commission
Division of Legal Services
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

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Attorney

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition To Reduce Intrastate Switched Network Access Rates In A Revenue Neutral Manner Pursuant to Section 364.164, Florida Statutes	)	Docket No.: 050693-TL Dated: 10.31.05

ALLTEL'S RESPONSE TO STAFF'S SECOND REQUESTS FOR PRODUCTION OF DOCUMENTS (NOS. 21-24)

Pursuant to Rule 28-106.206, Florida Administrative Code, Alltel Florida, Inc. ("Alltel"), by and through its undersigned counsel, hereby responds to Staff's Second Requests for Production of Documents as set forth below.

DOCUMENTS REQUESTED

21. Please provide all documents that support your response to Interrogatory No. 48(a).

RESPONSE: Alltel does not have any documents responsive to this request.

22. Please provide all documents that support your response to Interrogatory No. 48(c).

RESPONSE: Alltel does not have any documents responsive to this request.

23. Please provide all documents that support your response to Interrogatory No. 48(d).

RESPONSE: Documents responsive to this request are attached as Exhibit One.

24. Please provide all studies and supporting analyses relating to your response to Interrogatory No. 52.

RESPONSE: Other than the exhibits submitted with the Prepared Direct Testimony of David Blessing, Alltel does not have documents responsive to this request.

DATED this 31st day of October, 2005.

J. JEFFRY WAHLEN
Fla. Bar No. 884316
Ausley & McMullen
P. O. Box 391
Tallahassee, Florida 32302
850.425.5471 (direct)

and

STEPHEN B. ROWELL
Alltel Communications
One Allied Drive, B5F11
Little Rock, AR 72203-2177
(501) 905-8460

ATTORNEYS FOR
ALLTEL FLORIDA, INC.

CERTIFICATE OF SERVICE

I hereby certify that a true and correct of the foregoing was served by hand delivery and electronic mail this 31st day of October, 2005, to the following:

Jason Rojas
Florida Public Service Commission
Division of Legal Services
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Charles J. Beck, Deputy Public Counsel
Office of Public Counsel
c/o The Florida Legislature
111 West Madison Street, Room 812
Tallahassee, Florida 32399-1400

Attorney

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ALLTEL
6867 Southpoint Dr. N.
Suite 103
Jacksonville, FL 32216

James L. White, Jr.
Regional VP - External Affairs
Government Relations
904-470-4769 - Ofc
904-296-6892 - Fax

alltel

October __, 2005

BY HAND DELIVERY

Ms. Blanca S. Bayo, Director
Division of Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Docket No. 050693-TL

Dear Ms. Bayo:

Consistent with the discussions between the Staff of the Florida Public Service Commission, the Office of Public Counsel and Alltel Florida, Inc. ("Alltel") on October 18, 2005, Alltel makes the following affirmative commitment:

> If the Florida Public Service Commission approves Alltel's rebalancing plan in this docket, Alltel consents to language in the final order acknowledging that as part of the approval of the rebalancing plan, Alltel has voluntarily waived the exemption in its favor contained in 47 U.S.C. §251(f)(1) and formally terminating Alltel's rights under 47 U.S.C §251(f)(1) in the State of Florida.

This commitment shall have no force or effect if Alltel's rebalancing plan is not approved.

The undersigned is authorized to make this commitment on behalf of Alltel.

Sincerely,

James White

AUSLEY & MCMULLEN
ATTORNEYS AND COUNSELORS AT LAW
227 SOUTH CALHOUN STREET
P.O. BOX 391 (ZIP 32302)
TALLAHASSEE, FLORIDA 32301
(850) 224-9115 FAX (850) 222-7560

October 28, 2005

BY HAND DELIVERY

Ms. Blanca S. Bayo, Director
Division of Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Docket No. 050693-TL

Dear Ms. Bayo:

Enclosed for filing in the above-referenced docket are the original and fifteen (15) copies of Alltel's Commitment Letter.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning the same to this writer.

Thank you for your assistance in this matter.

Sincerely,

J. Jeffry Wahlen

Enclosure

cc: Parties of Record

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EXHIBIT NO. _____

DOCKET NO.: 050693-TL

WITNESS: Alltel-2

PARTY: Alltel

DESCRIPTION: Alltel's responses to Citizen's Interrogatories and Production of Documents(All)

PROFFERING PARTY: STAFF

I.D. # Alltel-2

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 3
Company/ FPSC Staff
Witness: Alltel-2
Date: 12/01/05

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition To Reduce Intrastate Switched Network Access Rates In A Revenue Neutral Manner Pursuant to Section 364.164, Florida Statutes	)	Docket No.: 050693-TL Served: 10.19.05

ALLTEL'S ANSWERS TO
CITIZENS' FIRST SET OF INTERROGATORIES

Pursuant to Rule 25-22.034, Florida Administrative Code and Rule 1.350, Florida Rules of Civil Procedure, Alltel Florida, Inc. ("Alltel"), answers Citizens' First Set of Interrogatories as set forth below. These answers are provided subject to Alltel's Objections to Citizen's First Set of Interrogatories, dated October 11, 2005, which are incorporated herein by reference.

Alltel Florida, Inc.
Docket No. 050693-TL
Citizens' First Set of Interrogatories
Interrogatory No. 1
Page 1 of 1
REVISED 11.30.05

1. **Please provide the number of Lifeline customers served by Alltel Florida as of January 1 of 2001, 2002, 2003, 2004, and 2005.**

ANSWER:

2001	2002	2003	2004	2005
1,128	1,434	1,737	1,676	2,445

2. **Please describe in detail all efforts made by Alltel Florida during the last four years to increase the number of households taking advantage of Lifeline and Linkup.**

ANSWER:

Alltel currently publishes a description of our Lifeline & Link-Up services annually in newspapers in our local service area and in bill inserts in local customer bills. Alltel also partnered with the FPSC to develop a brochure and application which were made available to local schools, and is currently available on the PSC website. Alltel continues to evaluate its outreach efforts and will consider additional outreach efforts as necessary.

3. **Please provide a detailed description of Alltel's current plan to increase the number of customers taking advantage of Lifeline and Linkup.**

ANSWER:

Alltel will continue with its current outreach efforts which appear to be successful based on the increase in subscribership since 2000. If in the future it appears Alltel's outreach efforts should be increased, Alltel will consider additional outreach efforts.

4. **Please provide the percent of all households subscribing to basic local telephone service in Alltel Florida's region during each year 2002 through 2005.**

ANSWER:

Alltel does not have this information as requested. In response to Citizen's Request for Production of Documents Number 14, Alltel is providing 2003 and 2004 access line data and total households in Alltel Florida's exchanges. A comparison of access lines and households in general shows that subscribership in Alltel Florida exchanges is consistent with telephone subscribership in the United States as a whole as shown in Exhibit Nos. ___ (DCB-1) and ___ (DCB-2).

AFFIDAVIT

STATE OF ARKANSAS
COUNTY OF GULASKI

BEFORE ME, the undersigned authority, personally appeared BETTYE WILLIS, who deposed and said that she is employed by Alltel as Staff Manager – External Affairs and that ALLTEL Florida, Inc.'s answers to Citizen's First Set of Interrogatories are true and correct to the best of her information and belief.

DATED this ____ day of October, 2005.

_____

BETTYE WILLIS

The foregoing instrument was acknowledged before me this ____ day of October, 2005, by BETTYE WILLIS, who is personally known to me.

_____
Notary

_____
printed name

_____
Title, Rank, Serial No., etc.

My Commission Expires:

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition To Reduce Intrastate Switched Network Access Rates In A Revenue Neutral Manner Pursuant to Section 364.164, Florida Statutes	)	Docket No.: 050693-TL Filed: 10.19.05

ALLTEL'S RESPONSES TO CITIZENS' FIRST SET OF REQUESTS FOR PRODUCTION OF DOCUMENTS (NOS. 1-17)

Pursuant to Rule 28-106.206, Florida Administrative Code, Alltel Florida, Inc. ("Alltel"), by and through its undersigned counsel, hereby responds to Citizens' First Set of Requests for Production of Documents as set forth below. These responses are subject to Alltel's Objections to Citizen's First Request for Production of Documents, dated October 11, 2005, which are incorporated herein by reference.

DOCUMENTS REQUESTED

1. Please provide all documents in your possession, custody or control discussing or evaluating the impact of rate rebalancing in general, or the rate rebalancing petition you filed in this proceeding, on customers' bills or the amount your customers will pay for telecommunications services.

RESPONSE:

The following documents were reviewed to analyze the impact of the rate rebalancing on customers' bills or the amount customers will pay for telecommunications services. These documents are found as exhibits attached to the Direct Testimony of David C. Blessing.

Exhibit DCB-0: Composite Exhibit – Tables 2 - 7

Exhibit DCB-1: Belinfante, Alexander; *Telephone Subscribership in the United States (Data Through March 2003)*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 2; Released November 2003.

Exhibit DCB-2: Belinfante, Alexander; *Telephone Subscribership in the United States (Data Through March 2005)*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 2; Released May 2005.

Exhibit DCB-3: Florida Statute § 364.164.

Exhibit DCB-6: Florida Statute § 364.025 Universal Service.

Exhibit DCB-9: See *Handbook of Telecommunications Economics,* Amsterdam: Elsevier Science, 2001; *Chapter 10,* UNIVERSAL RESIDENTIAL TELEPHONE SERVICE, Michael H. Riordan, *Columbia University,* August 29, 2001.

Exhibit DCB-10: Order No. PSC-03-1469-FOF-TL Florida Public Service Commission; Comprised of Docket No. 030867-TL, In re: Petition by Verizon Florida Inc. to reform intrastate network access and basic local telecommunications rates in accordance with Section 364.164, Florida Statutes; Docket No.. 030868-TL, In re: Petition by Sprint-Florida, Incorporated to reduce intrastate switched network access rates to interstate parity in revenue-neutral manner pursuant to Section 364.164(1), Florida Statutes; Docket No. 030869-TL, In re: Petition for implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.; and Docket No. 030961-TI, In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes.; Issued: December 24, 2003.

Exhibit DCB-11: Agustin J. Ros and Karl McDermott, "Are Residential Local Exchange Prices Too Low? Drivers to Competition in the Local Exchange Market and the Impact of Inefficient Prices," in Michael Crew, *Expanding Competition in Regulated Industries,* Kluwer Academic Publishers, 2000.

Exhibit DCB-12: Amended Direct Testimony of Dr. Kenneth Gordon On behalf of Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-

Florida Inc. Before the Florida Public Service Commission; in Docket No. 030867-TL, In re: Petition by Verizon Florida Inc. to reform intrastate network access and basic local telecommunications rates in accordance with Section 364.164, Florida Statutes; Docket No.. 030868-TL, In re: Petition by Sprint-Florida, Incorporated to reduce intrastate switched network access rates to interstate parity in revenue-neutral manner pursuant to Section 364.164(1), Florida Statutes; Docket No. 030869-TL, In re: Petition for implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.; and Docket No. 030961-TI, In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes. See Also Final Order No. PSC-03-1469-FOF-TL, Issued: December 24, 2003.

Exhibit DCB-13: James Eisner and Dale E. Lehman, *Regulatory Behavior and Competitive Entry,* presented at the 14th Annual Western Conference Center for Research in Regulated Industries, June 28, 2001; p. B24.

Exhibit DCB-14: Agustin J. Ros and Aniruddha Banejee, "Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America," *Telecommunications Policy,* 24 (2000) 233-252.

Exhibit DCB-15: Florida Public Service Commission, *Annual Report To The Florida Legislature On The Status Of Competition In The Telecommunications Industry In Florida as of May 31, 2004*, p. 75

Exhibit DCB-20: Wyoming PSC 2005 Annual Telecom Report.

Exhibit DCB-23: FCC *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service,* Table 1.1 July 2005.

Exhibit DCB-24: US Census Bureau, 2003 Household Income and Expenditures.

Exhibit DCB-25: CPI - All Urban Consumers - All Items - Year to Year Average Change in CPI; U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C. 20212; Consumer Price Index, All Urban Consumers – (CPI-U), U.S. City Average – All Items.

Exhibit DCB-26: *CTIA - the Wireless Association's Annualized Wireless Industry Survey Results, December 1985 – December 2004 Reflecting Domestic U.S. Commercially-Operational Cellular, ESMR and PCS Providers*, p.2 @ http://www.ctia.org/research_statistics/statistics/index.cfm/AID/10030.

Exhibit DCB-27: National Cable Television Association at http://www.ncta.com. State date from Nielsen Media Research representing January 2005 TV households and September 2004 cable TV households.

Exhibit DCB-28: National Cable Television Association at http://www.ncta.com; Industry Overview, Statistics & Resources, revenue data provided by Kagan Research LLC.

Exhibit DCB-29: "Trends in Telephone Service" - May 2004; FCC Industry Analysis and Technology Division Wireline Competition Bureau, Table 2.5. (June 30, 2003 data).

Exhibit DCB-30: Second Interim Order On Rehearing Before the Illinois Commerce Commission; In re: Illinois Independent Telephone Association Petition for initiation of an investigation of the necessity of and the establishment of a Universal Service Support Fund in accordance with Section 13-301(d) of the Public Utilities Act; Docket 00-0233; Consolidated with Illinois Commerce Commission On Its Own Motion Investigation into the necessity of and, if appropriate, the establishment of a Universal Support Fund pursuant to Section 13-301(d) of the Public Utilities Act; Docket 00-0335; dated: March 13, 2002.

Exhibit DCB-31: Wyoming Public Service Commission "2000 ANNUAL TELECOMMUNICA-TIONS REPORT" prepared by the Commissioners and Staff of the Wyoming Public Service Commission; January 10, 2000.

Exhibit DCB-32: Florida Statute § 364.10 Lifeline.

Exhibit DCB-33: Robert Crandall and Leonard Waverman, *Who Pays for Universal Service?: When Telephone Subsidies Become Transparent,* Brookings Institute, (2000), pp. 91 - 93.

Exhibit DCB-34: *Senate Staff Analysis and Economic Impact Statement of CS/SB 654 - the Tele-Competition Innovation and Infrastructure Enhancement Act.*, dated April 8, 2003.

Exhibit DCB-35: Verizon Wireless America's Choice Calling Plan for Live Oak, FL found at http://www.verizonwireless.com/b2c/store/.

Exhibit DCB-38: Time Warner Inc, Form 10-Q Quarterly Report, Filed 8/3/2005 For Period Ending 6/30/2005.

Exhibit DCS-40: *Local Telephone Competition: Status as of June 30, 2004;* Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 13; Released December 2004.

2. Please provide all documents in your possession, custody or control discussing or showing the mean, median, or other distribution of customer intrastate long distance calling in Florida by your customers or other customers in Florida.

RESPONSE:

Alltel is not privy to data regarding calling revenues for other carriers and does not maintain the requested data for it own traffic. However, Alltel does have data regarding intrastate long distance calling minutes of use and is producing a schedule showing that data. Specifically, the attached document shows that Alltel Florida local customers in total average over 9 million minutes a month in intrastate toll calls or 2.7 million intrastate toll calls per month. The average number of calls per customer for the past three months was 29.63.

A schedule showing the details supporting this response contains proprietary confidential business information and is included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Second Notice of Intent to Request Confidential Classification. The file is a PDF file named: OPC First RPD, No. 2.

3. Please provide all documents in your possession, custody or control discussing or evaluating the typical, average, or median bill of customers for local telecommunications services, including ancillary services.

RESPONSE: The document responsive to this request contains proprietary confidential business information. It is included on a CD stamped confidential and filed

contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Second Notice of Intent to Request Confidential Classification. The file is a PDF file named: OPC First RPD, No. 3.

4. Please provide all documents in your possession, custody or control discussing or evaluating the possible effect of your proposal in this case on telephone subscribership.

RESPONSE:

The documents reviewed to analyze and evaluate the possible effect of the proposal in this case on telephone subscribership are the same as those identified in the response to request no. 1, above.

5. Please provide all documents in your possession, custody or control discussing or evaluating criteria or business cases for entering new markets in Florida for local telecommunications services.

RESPONSE:

The following documents were reviewed to analyze and evaluate the criteria or business cases for entering new markets in Florida for local telecommunications services. These documents are found as exhibits attached to the Direct Testimony of David C. Blessing.

Exhibit DCB-4: (Non-Confidential) Hatfield HAI 5.0a – Default and ALLTEL-specific model runs plus input changes.

Exhibit DCB-4: (Confidential) Hatfield HAI 5.0a – Default and ALLTEL-specific model runs plus input changes.

Exhibit DCB-5: ALLTEL Florida 2004 embedded cost study.

Exhibit DCB-6: Florida Statute § 364.025 Universal Service.

Exhibit DCB-7: In re: *Determination of the cost of basic local telecommunications service, pursuant to Section 364.025, Florida Statues*, Docket No. 980696-TP, Order No. PSC-99-0068-FOF-TP (excerpts).

Exhibit DCB-8: Order No. PSC-96-0680-FOF-TL; Before The Florida Public Service Commission, In Re: Request for Approval of 1995 Depreciation Study by ALLTEL Florida, Inc.; Docket No. 950887-TL; Issued: May 23, 1996.

Exhibit DCB-10: Order No. PSC-03-1469-FOF-TL Florida Public Service Commission; Comprised of Docket No. 030867-TL, In re: Petition by Verizon Florida Inc. to reform intrastate network access and basic local telecommunications rates in accordance with Section 364.164, Florida Statutes; Docket No.. 030868-TL, In re: Petition by Sprint-Florida, Incorporated to reduce intrastate switched network access rates to interstate parity in revenue-neutral manner pursuant to Section 364.164(1), Florida Statutes; Docket No. 030869-TL, In re: Petition for implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.; and Docket No. 030961-TI, In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes.; Issued: December 24, 2003.

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Section 364.163(2), Florida Statutes. See Also Final Order No. PSC-03-1469-FOF-TL, Issued: December 24, 2003.

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Exhibit DCB-14: Agustin J. Ros and Aniruddha Banejee, "Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America," *Telecommunications Policy,* 24 (2000) 233-252.

Exhibit DCB-15: Florida Public Service Commission, *Annual Report To The Florida Legislature On The Status Of Competition In The Telecommunications Industry In Florida as of May 31, 2004*, p. 75

Exhibit DCB-16: Unite Communications Systems @ http://www.uniteone.net/index.html.

Exhibit DCB-17: Utopia Net website @ http://www.utopianet.org/.

Exhibit DCB-18: Grant County (Washington State) Public Utility District Zip fiber network website @ http://www.gcpud.org/zipp/zippnews.htm.

Exhibit DCB-19: Chelan County (Washington State) Public Utility District fiber network website @ https://fiber.chelanpud.org/euedu/about_Us/PUD_Fiber/Presentations/

Exhibit DCB-20: Wyoming PSC 2005 Annual Telecom Report.

Exhibit DCB-21: Bresnan Communications home page @ http://bresnan.com.

Exhibit DCB-22: Contact Communication's home page @ http://www.contactcom.net/default.htm

Exhibit DCB-23: FCC *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service,* Table 1.1 July 2005.

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Exhibit DCB-35: Verizon Wireless America's Choice Calling Plan for Live Oak, FL found at http://www.verizonwireless.com/b2c/store/.

Exhibit DCB-36: "eBay to Acquire Skype" eBay press release dated September 12, 2005; available at http://investor.ebay.com/downloads/eBay_PressRelease.pdf.

Exhibit DCB-37: Cox Communications website at http://www.cox.com/GainesvilleOcala/

Exhibit DCB-38: Time Warner Inc, Form 10-Q Quarterly Report, Filed 8/3/2005 For Period Ending 6/30/2005.

Exhibit DCS-40: *Local Telephone Competition: Status as of June 30, 2004;* Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 13; Released December 2004.

6. **Please provide all documents in your possession, custody or control describing, characterizing, calculating or analyzing the amount of current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential customers.**

RESPONSE:

The following documents were reviewed to analyze and evaluate the amount of current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential customers. These documents are found as exhibits attached to the Direct Testimony of David C. Blessing.

Exhibit DCB-4: (Non-Confidential) Hatfield HAI 5.0a – Default and ALLTEL-specific model runs plus input changes.

Exhibit DCB-4: (Confidential) Hatfield HAI 5.0a – Default and ALLTEL-specific model runs plus input changes.

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implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.; and Docket No. 030961-TI, In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes.; Issued: December 24, 2003.

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Exhibit DCS-40: *Local Telephone Competition: Status as of June 30, 2004;* Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 13; Released December 2004.

7. Please provide all documents in your possession, custody or control describing, characterizing, calculating, evaluating or analyzing the amount of increases in basic residential rates required to induce enhanced market entry.

RESPONSE:

The documents reviewed to analyze and evaluate the amount of increases in basic residential rates required to induce enhanced market entry are the same as those identified in the response to request no. 6, above.

8. Please provide copies of all documents in the company's possession custody or control relating to the number or percentage of customers who do not make a long distance call during a given month.

RESPONSE:

Alltel does not have documents responsive to this request.

9. Please provide all forecasts of access line growth or decline in your territory, and please provide all documents in your possession, custody or control discussing or evaluating the effect of rate rebalancing on access line growth or decline.

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Second Notice of Intent to Request Confidential Classification. The file is a PDF file named: OPC First RPD, No. 9.

This document shows the forecasted access line decline in Alltel Florida territory. Alltel is not in possession of specific documents that discuss the effect of rate rebalancing on access line growth or decline. In general, access line growth or decline for a particular company will be impacted by many factors one of which could be the availability of choices to customers.

In addition, the following documents were reviewed to evaluate the effect of the rate rebalancing on access line growth or decline. These documents are found as exhibits attached to the Direct Testimony of David C. Blessing.

Exhibit DCB-1: Belinfante, Alexander; *Telephone Subscribership in the United States (Data Through March 2003)*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 2; Released November 2003.

Exhibit DCB-2: Belinfante, Alexander; *Telephone Subscribership in the United States (Data Through March 2005)*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 2; Released May 2005.

Exhibit DCB-10: Order No. PSC-03-1469-FOF-TL Florida Public Service Commission; Comprised of Docket No. 030867-TL, In re: Petition by Verizon Florida Inc. to reform intrastate network access and basic local telecommunications rates in accordance with Section 364.164, Florida Statutes; Docket No.. 030868-TL, In re: Petition by Sprint-Florida, Incorporated to reduce intrastate switched network access rates to interstate parity in revenue-neutral manner pursuant to Section 364.164(1), Florida Statutes; Docket No. 030869-TL, In re: Petition for implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.; and Docket No. 030961-TI, In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes.; Issued: December 24, 2003.

Exhibit DCB-11: Agustin J. Ros and Karl McDermott, "Are Residential Local Exchange Prices Too Low? Drivers to Competition in the Local Exchange Market and the Impact of Inefficient Prices," in Michael Crew, *Expanding Competition in Regulated Industries,* Kluwer Academic Publishers, 2000.

Exhibit DCB-12: Amended Direct Testimony of Dr. Kenneth Gordon On behalf of Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-Florida Inc. Before the Florida Public Service Commission; in Docket No. 030867-TL, In re: Petition by Verizon Florida Inc. to reform intrastate network access and basic local telecommunications rates in accordance with Section 364.164, Florida Statutes; Docket No.. 030868-TL, In re: Petition by Sprint-Florida, Incorporated to reduce intrastate switched network access rates to interstate parity in revenue-neutral manner pursuant to Section 364.164(1), Florida Statutes; Docket No. 030869-TL, In re: Petition for implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.; and Docket No. 030961-TI, In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes. See Also Final Order No. PSC-03-1469-FOF-TL, Issued: December 24, 2003.

Exhibit DCB-13: James Eisner and Dale E. Lehman, *Regulatory Behavior and Competitive Entry,* presented at the 14th Annual Western Conference Center for Research in Regulated Industries, June 28, 2001; p. B24.

Exhibit DCB-14: Agustin J. Ros and Aniruddha Banejee, "Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America," *Telecommunications Policy,* 24 (2000) 233-252.

Exhibit DCB-15: Florida Public Service Commission, *Annual Report To The Florida Legislature On The Status Of Competition In The Telecommunications Industry In Florida as of May 31, 2004*, p. 75

Exhibit DCB-20: Wyoming PSC 2005 Annual Telecom Report.

Exhibit DCB-26: *CTIA - the Wireless Association's Annualized Wireless Industry Survey Results, December 1985 – December 2004 Reflecting Domestic U.S. Commercially-Operational Cellular, ESMR and PCS Providers*, p.2 @ http://www.ctia.org/research_statistics/statistics/index.cfm/AID/10030.

Exhibit DCB-27: National Cable Television Association at http://www.ncta.com. State date from Nielsen Media Research representing January 2005 TV households and September 2004 cable TV households.

Exhibit DCB-28: National Cable Television Association at http://www.ncta.com; Industry Overview, Statistics & Resources, revenue data provided by Kagan Research LLC.

Exhibit DCB-29: "Trends in Telephone Service" - May 2004; FCC Industry Analysis and Technology Division Wireline Competition Bureau, Table 2.5. (June 30, 2003 data).

Exhibit DCB-31: Wyoming Public Service Commission "2000 ANNUAL TELECOMMUNICA-TIONS REPORT" prepared by the Commissioners and Staff of the Wyoming Public Service Commission; January 10, 2000.

Exhibit DCB-34: *Senate Staff Analysis and Economic Impact Statement of CS/SB 654 - the Tele-Competition Innovation and Infrastructure Enhancement Act.*, dated April 8, 2003.

Exhibit DCB-37: Cox Communications website at http://www.cox.com/GainesvilleOcala/

Exhibit DCB-38: Time Warner Inc, Form 10-Q Quarterly Report, Filed 8/3/2005 For Period Ending 6/30/2005.

Exhibit DCB-39: CV of David C. Blessing.

Exhibit DCS-40: *Local Telephone Competition: Status as of June 30, 2004;* Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 13; Released December 2004.

10. Please provide all forecasts of access minute of use growth or decline in your territory, and please provide all documents in your possession, custody or control discussing or evaluating the effect of rate rebalancing on access minute of use growth or decline.

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Second Notice of Intent to Request Confidential Classification. The file is a PDF file named: OPC First RPD, No. 10.

The document shows the access minute of use forecasts for Alltel Florida. Alltel is not in possession of specific documents that discuss the effect of rate rebalancing on access minutes of use growth or decline. In general, access minutes of use growth or decline for a particular company will be impacted by such things as competition as customers make choices regarding service providers and bypass as service providers find ways to avoid using the network of the local exchange company or use new technologies such as VoIP that do not require the use of the local network.

See also documents responsive to request no. 9, above. Parrish, Blessing, and Associates did not create a separate study evaluating the effect of the rate rebalancing on access minute of use growth or decline.

11. Please provide copies of all documents in the company's possession custody or control relating to the impact of the rates proposed in this docket on residential customers.

RESPONSE:

The documents reviewed to analyze and evaluate the impact of the rates proposed in this docket on residential customers are the same as those identified in the response to request no. 1, above.

12. Please provide all documents in the company's possession, custody or control describing Alltel Florida's plans related to Lifeline or Link-Up Service.

RESPONSE:

Please see documents included as Attachments One and Two, electronic copies of


FL Lifeline-Link Up Insert 05....


Lifeline_Form

which are embedded in this response.

13. Please provide all workpapers prepared by or for Bettye J. Willis and David C. Blessing related to their testimony in this proceeding.

RESPONSE:

Please see Exhibit No. ___ (DCB-4). In addition, Alltel is producing other documents responsive to this request that contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this

Bill Insert Re: FL Lifeline/Link Up service
Billing System: CAMS
Audience: All wireline customers in co. 047
Bill Cycle: December 1-28, 2005

Bill Insert Text:

Alltel – Providing Telephone Assistance in Your Community

Striving to make telecommunications services affordable for all consumers, Alltel is proud to offer two financial assistance programs: Lifeline and Link Up Florida. Through these programs, eligible customers will receive discounts on monthly local basic service, service order charges and deposits (including voluntary toll blocking). To qualify for these plans, customers must receive benefits from at least one of the following programs: Medicaid, Food Stamps, Supplemental Security Income, Federal Public Housing Assistance or Low-Income Home Energy Assistance Program.

If you have any questions or would like more information, please call your Alltel business office at 1-800-347-1991, or contact the Florida Department of Human Services.

BARCODE 034935

Florida Lifeline Self-Certification Affidavit

Date:

Subscriber's Name (Last, First, M):
Subscriber's Mailing Address:

Subscriber's Home Phone No: **Fax No:**
Order Number: **Bex:**

This document is to certify under penalty of perjury that I, the undersigned am entitled to receive benefits in one or more of the entitlement programs listed below:

(Check all applicable)

- ☐ Federal Public Housing Assistance
- ☐ Food Stamps
- ☐ Low Income Home Energy Assistance Program
- ☐ Medicaid
- ☐ Supplemental Security Income (SSI)
- ☐ Temporary Assistance for Needy Families

I also hereby certify that:
a. My telephone service is listed in my name.
b. The address listed is my primary residence; not a second home or business.

I also agree to notify ALLTEL Telephone Service if and when I am no longer a recipient in the programs listed.

Signature:_____

Date:_____

RETURN ADDRESS:
ALLTEL Telephone Services
ATTN: Support Services-Lifeline
1720 Galleria Boulevard
Charlotte, North Carolina 28270
FAX: (704) 849-7000

response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Second Notice of Intent to Request Confidential Classification. The file is a PDF file named: OPC First RPD, No. 13-1, 13-2, 13-3 and 13-4.

14. Please provide all documents in your possession, custody or control showing the percent of all households subscribing to basic local telephone service in Alltel Florida's region during the years 2002 through 2005.

RESPONSE:

Alltel does not have information available that shows the percent of all households subscribing to basic local telephone service in its region for the years requested. The attached worksheet shows total number of POPs, access lines and households by exchange for Alltel Florida's region for 2003. The total number of households by exchange for 2004 is also included.

This document contains proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Second Notice of Intent to Request Confidential Classification. The file is a PDF file named: OPC First RPD, No. 14.

15. Please provide all documents in your possession, custody or control analyzing or describing the reasons for a change in the percent of all households subscribing to basic local telephone service in Alltel Florida's region during all or part of the years 2002 through 2005.

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Second Notice of Intent to Request Confidential Classification. The file is a PDF file named: OPC First RPD, No. 15. This documents shows why customers disconnect local telephone service for 2004 and 2005.

16. Please provide all documents in your possession, custody or control showing the household income of customers residing in the territory of Alltel Florida, as well as all documents in your possession, custody or control comparing the household income of customers residing in the territory of Alltel Florida to others customers in Florida or to Florida as a whole.

RESPONSE:

See document included as Attachment Three shows the median household income and per capita money income for each Alltel Florida Exchange and for the state of Florida in total. An electronic version of this document is also embedded in this response.


"FL income.xls"

17. Please provide copies of testimony of David C. Blessing filed at any public utility commission since January 1, 2003, as well as all transcripts in your possession, custody or control of any cross examination of Mr. Blessing before any public utility commission since January 1, 2003.

RESPONSE: A list of the proceedings in which Mr. Blessing pre-filed testimony will be produced as soon as possible and will be marked as Attachment Four. Alltel will produce the testimony and transcripts is soon as they are available.

DATED this 19th day of October, 2005.

J. JEFFRY WAHLEN
Fla. Bar No. 884316
Ausley & McMullen
P. O. Box 391
Tallahassee, Florida 32302
850.425.5471 (direct)

and

STEPHEN B. ROWELL
Alltel Communications
One Allied Drive, B5F11
Little Rock, AR 72203-2177
(501) 905-8460

ATTORNEYS FOR
ALLTEL FLORIDA, INC.

CERTIFICATE OF SERVICE

I hereby certify that a true and correct of the foregoing was served by habnd delivery and electronic mail this 19th day of October, 2005, to the following:

Jason Rojas
Florida Public Service Commission
Division of Legal Services
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Charles J. Beck, Deputy Public Counsel
Office of Public Counsel
c/o The Florida Legislature
111 West Madison Street, Room 812
Tallahassee, Florida 32399-1400

Attorney

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition To Reduce Intrastate Switched Network Access Rates In A Revenue Neutral Manner Pursuant to Section 364.164, Florida Statutes	)	Docket No.: 050693-TL Filed: 10.24.05

ALLTEL'S RESPONSES TO CITIZENS' SECOND SET OF REQUESTS FOR PRODUCTION OF DOCUMENTS

Pursuant to Rule 28-106.206, Florida Administrative Code, Alltel Florida, Inc. ("Alltel"), by and through its undersigned counsel, hereby responds to Citizens' Second Set of Requests for Production of Documents as set forth below. These responses are subject to Alltel's objections, filed October 19, 2004, which are incorporated herein by reference.

DOCUMENTS REQUESTED

18. Please provide copies of all documents relating to any analysis or study of the impact on the number of residential subscribers and/or residential revenues if the company rebalanced rates to move access closer to or to achieve parity with interstate access charges.

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Third Notice of Intent to Request Confidential Classification. The file is named: OPC Second RPD, No. 18.

These show the analysis Alltel performed of the impact on the number of residential subscribers if the company rebalanced rates to move access closer to or achieve parity with interstate access charges. The documents show the impact on the local residential rate if Alltel Florida were to rebalance rates to move access closer to or to achieve parity with interstate access charges. Alltel compared the amount of residential rate increase and the final rebalanced rate to the rebalanced rate of the three large ILECs in Florida against the local rates for residential service in other states in the southeast region. Based on this analysis, Alltel concluded that the resulting residential rate if access rate parity was achieved was still affordable, however outside the range approved by the Florida Public Service Commission for the large ILECs. Accordingly, Alltel proposed to rebalance rates by an amount that resulted in residential rates consistent with the rebalanced rate of the large ILECs in Florida.

19. Please provide copies of all documents that relate to total interstate and intrastate access charge revenues, stated separately, projected for 2006, 2007, 2008 and 2009, which include, exclude, or compare the impact from the rebalancing petition in this case.

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Third

Notice of Intent to Request Confidential Classification. The file is named: OPC Second RPD, No. 19.

The attached document shows total interstate and intrastate access charge revenues forecast for interstate and intrastate access charge revenues for 2006. Alltel does not have documents responsive for 2007-2009. The 2006 forecast includes the impact of the rebalancing petition as well as other factors Alltel would normally include in its forecasting process. Alltel Corporation does not forecast access revenues for Alltel Florida separately from its other wireline subsidiaries. Factors were applied to all Alltel Corp. wireline access revenues, allowing for specific known impacts such as rebalancing, resulting in a forecast of total wireline access revenues.

20. Please provide copies of all documents that relate to total residential and business subscribers, stated separately, projected for year 2005, 2006, 2007, 2008 and 2009, which include, exclude, or compare the impact from the rebalancing petition in this case.

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Third Notice of Intent to Request Confidential Classification. The file is named: OPC Second RPD, No. 20.

This document shows the forecasted residential and business access lines for 2005-2009 for Alltel Florida. This forecast includes the impact of the rebalancing petition as well as other factors Alltel normally considers in its forecasting process. Alltel Corporation does not forecast access lines for Alltel Florida separately from its other wireline subsidiaries. Factors are applied to all Alltel Corp. wireline exchanges, allowing for specific known impacts, resulting in a forecast of total wireline access lines.

21. Please provide copies of all documents that relate to total residential and business DSL service access lines that are not included in the data requested in POD 20, stated separately, projected for year 2006, 2007, 2008 and 2009, which include, exclude, or compare the impact from the rebalancing petition in this case.

RESPONSE:

The documents responsive to this request contain proprietary confidential business information. They are included on a CD stamped confidential and filed contemporaneous with this response under a separate confidential cover with the Division of Commission Clerk and Administrative Services, together with Alltel's Third Notice of Intent to Request Confidential Classification. The file is named: OPC Second RPD, No. 21. This shows forecasted residential and business DSL service access lines for 2006-2009. This forecast does not include the impact of the rebalancing petition.

22. Please provide copies of all documents that relate to the repression that may occur as a result of the rebalancing proposals in this docket.

RESPONSE:

Except for the forecast documents Alltel has produced, Alltel does not have any documents responsive to this request.

DATED this 24th day of October, 2005.

J. JEFFRY WAHLEN
Fla. Bar No. 884316
Ausley & McMullen
P. O. Box 391
Tallahassee, Florida 32302
850.425.5471 (direct)

and

STEPHEN B. ROWELL
Alltel Communications
One Allied Drive, B5F11
Little Rock, AR 72203-2177
(501) 905-8460

ATTORNEYS FOR
ALLTEL FLORIDA, INC.

CERTIFICATE OF SERVICE

I hereby certify that a true and correct of the foregoing was served by hand delivery this ____ day of October, 2005, to the following:

Beth Keating
Florida Public Service Commission
Division of Legal Services
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Harold McLean, Public Counsel
Charles J. Beck, Deputy Public Counsel
Office of Public Counsel
c/o The Florida Legislature
111 West Madison Street, Room 812
Tallahassee, Florida 32399-1400

_____
Attorney

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CONFIDENTIAL

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 4
Company/ FPSC Staff
Witness: Alltel-Conf-1
Date: 12-01-05

EXHIBIT NO. 4

DOCKET NO.: 050693-TL

WITNESS: Alltel-Confidential-1

PARTY: Alltel

DESCRIPTION: Alltel's confidential responses to Staff's interrogatories and Production of Documents

1. Alltel's responses to Staff's 1st PODs (8,12,15,18,19a,20c) and responses to Staff's 1st Interrogatories (13b)
   (Document No. 09999-05)

2. Alltel's responses to Staff's 2nd Interrogatories (65,67,68)
   (Document No. 10519-05)

3. Alltel's responses to Citizen's 1st PODs(2,3,9,10,13,14,15)
   (Document No. 10931-05 x-ref. 10318-05)

4. Alltel's response to Citizen's 2nd PODs (18,19,20,21)
   Document No. 10147-05)

5. Alltel's response to Staff's 4th Interrogatories (93-105)
   (Document No. 11264-05)

6. Alltel's response to Staff's 5th Interrogatories (106-112)
   (Document No, 11265-05)

PROFFERING PARTY: STAFF **I.D. # Alltel-Confidential-1**

EXHIBIT NO. _____

DOCKET NO.: 050693-TL

WITNESS: David C. Blessing

PARTY: Alltel

DESCRIPTION: Deposition Transcript and errata, if any, of David C. Blessing

1. November 21, 2005 deposition transcript and errata, if any of David C. Blessing p. 1

PROFFERING PARTY: STAFF

I.D. # Alltel-3

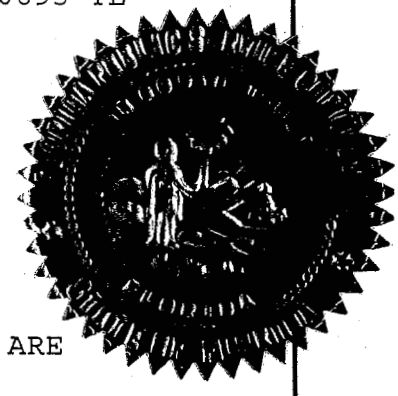
FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 5
Company/ FPSC Staff
Witness: Alltel-3
Date: 12/01/05

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 050693-TL

In the Matter of:

PETITION TO REDUCE INTRASTATE SWITCHED ACCESS RATES IN REVENUE-NEUTRAL MANNER PURSUANT TO SECTION 364.164, FLORIDA STATUTES, BY ALLTEL FLORIDA, INC.
_____/



ELECTRONIC VERSIONS OF THIS TRANSCRIPT ARE A CONVENIENCE COPY ONLY AND ARE NOT THE OFFICIAL TRANSCRIPT OF THE HEARING, THE .PDF VERSION INCLUDES PREFILED TESTIMONY.

DEPOSITION OF:	DAVID C. BLESSING
TAKEN AT THE INSTANCE OF:	The Staff of the Florida Public Service Commission
PLACE:	Room 362 Gerald L. Gunter Building 2540 Shumard Oak Boulevard Tallahassee, Florida
TIME:	Commenced at 10:15 a.m. Concluded at 11:20 a.m.
DATE:	Monday, November 21, 2005
REPORTED BY:	LINDA BOLES, RPR, CRR Official FPSC Reporter (850) 413-6734

APPEARANCES:

J. JEFFRY WAHLEN, ESQUIRE, Ausley & McMullen, Post Office Box 391, Tallahassee, Florida 32302, appearing on behalf of Alltel Florida, Inc.

JEREMY SUSAC, ESQUIRE, FPSC General Counsel's Office, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, appearing on behalf of the Florida Public Service Commission Staff.

WITNESS

S T I P U L A T I O N

IT IS STIPULATED that this deposition was taken pursuant to notice in accordance with the applicable Florida Rules of Civil Procedure; that objections, except as to the form of the question, are reserved until hearing in this cause; and that reading and signing was not waived.

IT IS ALSO STIPULATED that any off-the-record conversations are with the consent of the deponent.

P R O C E E D I N G S

MR. SUSAC: Good morning. My name is Jeremy Susac. I'm an attorney here at the Commission. This is a deposition in Docket Number 050693-TL.

Just some preliminary matters. Mr. Wahlen, do you agree to the usual stipulations here at the Commission?

MR. WAHLEN: Yes.

MR. SUSAC: And with that, I guess we could swear in the witness.

DAVID C. BLESSING

appeared as a witness and, after being duly sworn by the court reporter, testified as follows:

MR. SUSAC: And at this point in time maybe we should just get down your address for ordering a transcript.

MR. WAHLEN: Sure. Jeff Wahlen, Ausley & McMullen Law Firm, P.O. Box 391, Tallahassee, Florida 32302, appearing for Alltel.

DIRECT EXAMINATION

BY MR. SUSAC:

Q Mr. Blessing, as I mentioned earlier, my name is Jeremy Susac. I'm an attorney here at the Commission. I'm going to ask you some questions today in this docket, 050693. To the extent you can answer yes or no, we appreciate it. We know, you know, that's not always possible, but please try to start with a yes or no and then qualify your answers.

With that, Mr. Blessing, did you file testimony in this docket?

A Yes, I did.

Q And what did you prepare or what did you review in preparation of today's deposition?

A I reviewed the testimony, the exhibits attached to the testimony, the Florida Statutes, which was actually one of the exhibits, the other Alltel witness, Bettye Willis, her testimony.

Q And do you have your direct testimony with you here today?

A Yes, I do.

Q And would you please turn with me to Page 31 of your direct testimony. In particular I'm looking at Lines 6 through 13. This is also mentioned in staff's interrogatory number 38. I don't think it's necessary to turn there at this point in time, but if you do, your counsel, it looks like, has the discovery in this matter before us.

MR. WAHLEN: Which one is it again, Jeremy? I'm sorry.

MR. SUSAC: Interrogatory number 38. We have an extra copy here.

BY MR. SUSAC:

Q In your interrogatory response, excuse me, you cited CLEC resellers, wireless carriers, VoIP providers and cable

telephone providers as providing service in Alltel's local telecommunications market; is that correct?

A Yes.

Q Further in your testimony on Line 7 that we referred to earlier you state that, quote, unquote, Alltel's rate rebalancing is necessary to increase such competition, end quote. Is that correct?

A Yes.

Q Do CLEC resellers use collocation from Alltel?

A Do CLEC resellers use collocation?

Q Yes.

A Not to my knowledge, no.

Q And do CLEC resellers use UNEs, unbundled network elements, from Alltel?

A No.

Q Do CLEC resellers currently receive a resale discount from Alltel?

A I believe that the resellers on, in Alltel's territory are not receiving the discount.

Q Okay. So that is a no?

A Yes.

Q Do wireless carriers use collocation from Alltel?

A They're interconnected. Whether it's under a collocation agreement or not, I'm not sure.

Q Do wireless carriers use UNEs from Alltel?

A Not to my knowledge.

Q Do they purchase services for resale from Alltel?

A Not to my knowledge.

Q Going on the same line of questions for VoIP carriers, do VoIP providers use collocation from Alltel?

A I'm not aware that they do, no.

Q Do VoIP providers use UNEs from Alltel?

A No.

Q And do VoIP providers purchase resale from Alltel?

A I don't know.

Q Same line of questions for cable telephone providers. Do they collocate from Alltel?

A I'm not sure.

Q How about do they use UNEs from Alltel?

A Not that I'm aware of.

Q And do they purchase services for resale from Alltel?

A Not that I'm aware of.

Q Looking back, going back to your direct testimony, could we please turn to Page 25. In particular I'm looking at Lines 13 through 15.

Pertaining to the Ros and McDermott study, according to your testimony this study addresses the relationship between unbalanced prices and the, quote, percent of ILEC residential lines served by switching centers where new entrants have collocation agreements, end quote. Is that correct?

A Yes.

Q Based on the series of questions that I just asked you in regard to CLEC resellers, wireless carriers, VoIP providers, cable telephone providers, none of these competitors use collocation from Alltel; is that correct?

A That's my understanding, yes.

Q And, Mr. Blessing, then does the Ros and McDermott study address different types of competitor?

A Not necessarily. I think it addresses different types of arrangements. But I think the, the, the point still holds that I was trying to make here.

Q And could you reiterate that point for us?

A Well, the idea is if the rates are unbalanced, which means that the residential rates are supported by the rates of some other service, if that is the situation, that means that the residential rates are artificially low, which means it's much tougher for competition to come in.

Q And when you say unbalanced, are you referring to a subsidy maybe built into the switched access?

A Well, I don't like to use the term "subsidy" because subsidy has a technical meaning in economics. What we're talking about is a support flow. One of the support flows is from access to local, yes.

Q And to the extent these carriers aren't using UNEs from Alltel, how does that affect them?

A I don't think I understand your question.

Q To the extent they don't, these carriers that we just referred to don't use UNEs, they don't collocate, they don't purchase resale, how does that, how does that affect their bottom line?

A How does what affect?

Q I referred to it as a subsidy. I believe you referred to it as something else, a support.

A Uh-huh. Yes. Well, it doesn't matter how the competitor enters the market or what vehicle the competitor uses to provide service. The idea is if the ILEC's market price is artificially low, it's going to make it less likely that competitors are going to make the decision to come in through whatever vehicle.

Q And when you say difficult, it is much more difficult for which types of competitors?

A Any competitor. I'm not making any distinction between how the competitor would enter or what vehicle they would use to provide service.

Q Okay. So that would be an intermodal competition or it could be a traditional CLEC.

A It could be a traditional CLEC, it could be intermodal, it could be someone using -- when I say traditional CLEC, split it between someone who builds their own facilities versus someone that's going to lease them from the ILEC. I

don't think it matters.

Q But not reseller, wireless, VoIP, cable; right?

A Not -- I'm not sure what you mean.

Q I believe -- when speaking in terms of competitors, are you including resellers, wireless, VoIP and cable?

A Yes.

Q Okay.

A Yes.

Q And just for clarification for the record, based on those series of questions that I just asked you, none of those competitors currently receive a resale discount from Alltel; is that correct?

A I'm not aware that they do. Yes.

Q Then in your opinion, Mr. Blessing, does the Eisner and Lehman study address different types of competitors?

A Again, I think the point of referencing those studies in my testimony was that, A, you're not going to see a lot of competition with unbalanced rates. And, B, if an ILEC raises its residential rates, you know, up to a certain point, you're not going to see a, a real degradation in universal service. Those are the only points of those, those papers. I did not intend them to be a, you know, to relate to the situation here in Florida on a point-by-point basis.

Q Thank you. And could we now move on to staff interrogatory number 80. I think we can move on without the

actual interrogatory, if that's okay. In the event you need the interrogatory, we'll furnish it to you, sir.

MR. WAHLEN: Here you go.

BY MR. SUSAC:

Q In your response you stated that, quote, unquote, the market is two-way voice and data communications, end quote. Based on this remainder of your response, is it correct to infer that the market includes all various forms of telecommunications provided over various technologies that provide two-way voice and data communications?

A Let me read the question to make sure I can --

Q Certainly.

A Well, I think the point is it doesn't matter what the technology is. If it's functionally the same, customers are likely to view it as being the same service.

Q And now turning to staff interrogatory number 73, and I'll just give you my copy in which you state, "Alltel's price of basic local service is the relevant market price that competitors will consider." If the market is defined as a, quote, unquote, two-way voice and data communications, end quote, how can Alltel's price of basic local service be the relevant market price?

A What I'm referring to there is if you're talking about the, a residential service, say, okay, that particular service, the market price is Alltel's residential rate.

Q And that's the residential rate for what services, sir?

A For residential basic local service.

Q Basic local service. And now turning to staff, your response to staff's interrogatories number 74, 76 and 78. I'm going to -- you indicated that a number of wireless carriers, VoIP-based providers and cable telephone providers offer calling packages that are comparable to Alltel's Connect Unlimited bundle; is that correct?

A Yes. That's what the interrogatory says, yes.

Q And could -- and for my benefit could you please elaborate on what Alltel's Connect Unlimited bundle is?

A Well, you know, that's probably a question better left to Bettye Willis.

Q Okay.

A But I thought it was some sort of bundled local/long distance plan.

Q For the next question could we please refer to your response to staff's interrogatory number 55(b)? It was provided by Bettye Willis.

In the response Ms. Willis indicated that Alltel does not plan to increase the rates for any un -- for any bundled packages; is that correct?

A Yes.

Q I'm sorry to make you jump around like this, but now

going to your response to staff's interrogatories 82 through 84. Your response is you discuss how competitors may react to Alltel's R1 price increase. You indicate that if wireless carriers, VoIP providers and cable telephone providers do not increase their prices, the average gross margin per customer would stay the same for the competitors; is that correct?

A Well, the question was -- yes, that's what the, the answer is, the first line of the answer. But I thought the question was a bit unclear. The idea is if Alltel, say, raises their residential rates by $6, $6 a month, that gives an additional $6 of margin, makes that margin available to any potential or existing competitor. But, you know, I can't say or I don't think anyone can say exactly what they're going to do, whether they're going to adjust their rates to take advantage of that, whether they're going to use it to justify bringing in capital dollars into the area, investing in the Alltel market. So I wanted to answer it with that caveat that if they don't change the price, it's not going to impact the margin. If they do, it would.

Q In your opinion, sir, how likely or unlikely would it be for wireless providers, VoIP providers, cable providers to increase their prices if the Commission approves Alltel's petition?

A Well, I think it's probably more likely that additional competitors will come in or the existing competitors

will increase their efforts in the Alltel area. And will that reflect rate offerings that are higher than what the current competitors are, are offering? Maybe, maybe not. I, you know, I, I think it's probably likely, but I think it's more likely that additional competitors will enter.

Q And just to be clear, would the average gross margin per customer stay the same for these competitors because they would not experience any cost reduction as a result of the Commission approving Alltel's petition?

A It depends, it depends on what they would do with price, with their price.

Q Do you --

A And, again, we're, we're talking about two things. You've got existing competitors that may or may not target the Alltel service area with marketing efforts or anything to try to get deeper into that part of the market or you have new competitors that can enter. So you're kind of, you're kind of asking me to speculate as to what would happen, and I'm just not sure.

Q Do you think the competitors are constrained in the least bit by pricing of other competitors and coupled with the fact that Alltel is not raising their prices?

A Well, I thought Alltel is raising.

Q I mean bundled packages.

A I mean, the connect bundle I think is a, as I said,

is a bundled long distance/local plan. To the extent that those people are offering similar bundles that, and whatever Alltel's market share is in that sort of subsector of the market, there may be some constraint because of that. But for the basic local service, Alltel is raising its prices or at least petitioning to raise its prices in the same manner that the larger LECs did. So I don't see that as a constraint to competitors' behavior in the basic local service market.

Q My next question is in regards to the order, the Commission's final order on the access charge reduction by the petitions of BellSouth, Sprint, Verizon, which I believe you're familiar with.

A Yes.

Q We're furnishing you with Page 29 of the order, and looking at the first full paragraph.

A Uh-huh.

Q Okay. Would you agree with me, sir, that this paragraph indicates that for companies providing bundled offerings of local and long distance service, the average gross margin per customer would improve as a result of BellSouth, Sprint, and Verizon's access charge reduction petitions being approved?

A Again, you're assuming that there's going to be a change in the price. Well, actually, in terms of the access charges -- well, if their access charge bill goes down, all

else being equal, their margins will improve.

Q So was that a yes, you do agree that --

A Well, yes, with the caveat that all else being equal, if access charges go down and these people are paying access charges.

Q And in contrast, if the Commission approves Alltel's petition, do you agree that based on your earlier answers the average gross margin per customer may not improve for the wireless carriers, VoIP providers and cable telephone providers?

A Well, again, it depends on what they, what they do with their price. It's certainly available. Okay? If the, the competitors want to increase their efforts into the market, they have six additional dollars or eventually they'll have $6 in additional margin that they can use to finance those efforts.

Q You briefly just touched on my next question, if you could elaborate. In the event the Commission would approve, does approve Alltel's petition, could you please explain further why wireless, VoIP-based and cable telephone providers would have a greater economic incentive to compete in Alltel Florida's service territory?

A Well, to the extent that, and I don't think anybody is disputing this, to the extent that, let's take wireless, for instance, that there is wireless substitution both on a service

level, people turn off their wireline and just go exclusively with wireless or a minute level where they decide I'm going to use my wireless phone to make this call instead of their landline, to the extent that happens and it becomes more expensive, the price of Alltel service increases, that makes it more likely that consumers will make those substitution choices. And, and a company, take a wireless carrier like Verizon Wireless, they may decide to market more heavily in the Alltel service areas, billboards, whatever, to try to take advantage of that.

Q Do wireless, VoIP-based and cable telephone providers offer any plans that are comparable to Alltel's basic local service?

A Well, wireless plans, you know, they're going to offer their plans based on whatever the local calling area is for wireless carriers here in Florida. VoIP providers generally are bundling local service with long, long distance. I think the issue is whether or not the services are one to one, you know, comparable. The issue is whether or not a customer -- like when I watched the Vonage commercial on TV this morning at the hotel, the question is: Do I want to pay $25.99 for a bundle which includes long distance throughout the U.S. and Puerto Rico or do I want to pay $10.49 for local service and then have to buy my long distance separately? Now it seems to me that I'm more likely to look at a Vonage or some

other competitor at $25.99 with an inclusive package if the Alltel rate is $16.49 for just basic local than I am if it's $10.49.

Q Okay. Now my next question refers to interrogatories numbers 76 and 78. Excuse me.

In those responses, you expressed concerns that VoIP-based providers and telephone, cable telephone providers bypass Alltel's public switched network and, thus, Alltel's switched access charges. Is that correct, sir?

A Well, I'd have to read the answer.

Q Okay.

A But, I mean, in general that's true. But let me read the -- you said 76?

Q And 78.

A Yes, that's true.

Q And if VoIP-based providers and cable telephone providers do not pay Alltel's switched access charges, these providers could not benefit from a reduction in the level of switched access charges; is that correct?

A Yes. But I think you're missing, missing the point. Right now the system is set up where Alltel Florida looked up their unseparated loop costs the other day. Now the most recent one you can get is from the 2004 FCC monitoring report, which is 2002 data. The unseparated loop costs for Alltel Florida is $25 and some change. Okay. If you take 75 percent

of that to get just the intrastate piece of that, you're looking at something, you know, off the top of my head, $17, $18 a month just for the loop.

Okay. And we're, Alltel is charging $10.49 on average to residential customers. And that doesn't just include the loop, that includes switching, transport, all the other functions associated with providing telephone service, billing, things of that nature. So the question becomes if that access goes away because people are bypassing it -- and there's a reason why they're bypassing it. They're bypassing it because it's well above its average cost. It's much easier for them to go around it and it's cheaper for them to go around it. That does two things: It provides, I think, an unfair competitive advantage to these other folks, and it eliminates -- it causes the support flow to be reduced and, therefore, the support that Alltel depends on or any ILEC depends on to help support those artificially low residential rates goes away.

Q And under -- excuse me. I kind of got a cold this weekend. Unfortunately for you I'm the attorney that's assigned to this.

Under what circumstances, if any, do wireless carriers pay Alltel's originating switched access charges?

A To the extent that wireless carriers -- well, let's see. I believe to the extent that they complete a call outside

of whatever their local calling area is, they would pay the originating, terminating carrier -- well, it would be either the originating or terminating carrier, depending on which way the call went access.

Q Okay.

A I guess it would be terminating carrier. Let me, let me fix that.

Q And how is local calling area defined for wireless carriers?

A The FCC defines the local calling areas -- what do they call it? There's a term for it -- MTA or something.

Q Is that the metropolitan trading area?

A I believe that's what it stands for, yes.

Q And you touched on this as well, but under what circumstances, if any, do wireless pay Alltel's terminating switched access charges?

A Well, if a wireless, if a wireless customer originates a call and terminates it outside of their local calling area boundaries, whatever carrier, whatever ILEC terminates that call would charge them terminating access charges.

Q And how would Alltel benefit from a reduction in the level of switched access charges and a commensurate revenue-neutral increase in basic local rates?

A Well, I think the main reason and probably the most

important issue here is that access, switched access is a declining revenue stream. It's going away. To the extent that -- and the reason it's going away is because it's contributing to an implicit support flow. It's priced higher than average cost. So, therefore, competitors come in and undercut it.

As it goes away, the support flow dries up and Alltel or any other ILEC is no longer able to sustain its, its artificially low local rates.

Q And for the following -- excuse me. Strike that.

Okay. For the following question could you please refer to staff's first set of production of documents number 12.

MR. WAHLEN: Just a caution to the witness: We claim that this is confidential. In order to make the transcript a little cleaner, if you can avoid calling out the numbers. If you can refer to the numbers by page and line and row number, it'll be easier for everybody who has to deal with it.

MR. SUSAC: Well, let's -- can we go off the record for a second?

(Discussion held off the record.)

BY MR. SUSAC:

Q Okay. Back on the record. And my question with regards to production of document number 12, we asked that you please identify the number of lines that were lost and how many

were, were reported to Alltel Wireless or its affiliate.

A Do you want me to say the number?

Q If you can do it by column maybe.

MR. WAHLEN: Yeah. There's two numbers. There's, on Page 1 there's this column, Line 22, Column F, and on Page 2 it's Column --

THE WITNESS: I think this is all. This is Florida and this is total system.

MR. WAHLEN: Okay. Do you want Florida or systemwide?

MR. SUSAC: Might as well do Florida.

MR. WAHLEN: Okay.

THE WITNESS: So I guess it would be Column PA and -- or Column F, Row 21.

BY MR. SUSAC:

Q Okay. Thank you very much for your indulgence there.

Going back to your direct testimony, Mr. Blessing, Page 19. In specifically Lines 22 to 23 you refer to a, quote, unquote, complete rebalancing of rates, end quote.

Could you please describe what you believe to constitute a complete rebalancing of rates?

A Sure. In this context I'm referring to a complete rebalancing of rates as being bringing the rate up to its average cost for those receiving the support and down to its average cost for those contributing to the support.

If you'd like me to tell you what I mean by average cost --

Q Yeah. Could you just elaborate on that?

A Generally what we see in situations like this where we have a support flow between two services it is because of an unequal or disproportional allocation of fixed, common, shared, joint, whatever, however you want to refer to them, costs, nondirect costs, put it that way. Those costs are generally allocated between the services. And if the allocation is proportional, we can generally assume that, given that the direct costs are calculated correctly, that the rate is, is at its average cost. If the allocation is disproportional or disproportionate, then you will have a divergence from average cost.

Q Okay. And if you believe a complete rebalancing of Alltel's local service rates would be an appropriate objective, over what period of time would it be appropriate to achieve a complete rebalancing of Alltel's rates?

A Well, I think the FCC in the universal service, first universal service order as well as the local competition order took it straight from the language of the Telecom Act '96, implicit support flows had to be eliminated. They had to be eliminated because, one, they tend to stifle competition and they lead to basically reductions in social welfare. That -- after the Telecom Act of '96 it was clear that the two -- that

that policy, to eliminate the implicit support flows, would come in conflict with universal service objectives, and so, therefore, some sort of more gradual approach would, would be required.

I think that said, the timing of the necessary changes or the rebalancing is in large part determined by what's happening in the market. And as we see across the country, toll services are declining rapidly, which means access revenues are declining rapidly. We have a lot of competition in business, very little in -- less in residence because of the disparate rates between the two.

As we see these things happen, it becomes clearer and clearer that the rebalancing has to occur more quickly. And I think in terms of access charges it's been clear for a number of years that access reductions had to happen. Most states have done it, the FCC has done it. Florida has done it for the large LECs. And the same reasons that the implicit support flow coming from access had to be eliminated for the large LECs also applies to the small LECs. That support flow is drying up.

Q And could you elaborate and explain on the concept of social welfare that you alluded to?

A Well, this has to do with pricing signals and, and market signals to competitors. If we have a rate that's, that's well below its average cost, artificially low, like a

$10.49 residential rate, what signal is that sending to the market? It's certainly telling competitors we don't want to be in that market because it's very hard to make a go of it. And I think what that does is it ends up limiting the choices that the, the residential customers have available to them, which impacts social welfare.

On the flip side, artificially high access rates, artificially high business rates mean that competitors focus on those, which means resources are poured into those. Okay. So misallocation of resources in that sense.

And, finally, if business customers are paying much more than, say, residential customers, they're passing that cost through in the prices for their products and services, so that impact or that effect is going to ripple through the whole economy. So basically it's a distortion. And like any sort of market distortion, it impacts social welfare.

Q Thank you. On Page 21 of your direct testimony, Lines 1 through 13, you suggest that a high enough price for local service Alltel would be, quote, unquote, flooded with new entrants. And on Page 16, Lines 8 through 9, you report that the HAI 5.0a model default cost local service in Alltel's service territory to range from $41.76 to $48.44. Is that correct?

A Yes.

Q Does this represent Alltel's best estimate of the

cost of basic local service in Florida?

A No. No. I don't know what other cost studies the company has done about basic local service. The, the HAI model is a generally accepted or generally recognized model to estimate forward-looking costs. We use that simply to illustrate that the current rate is well below even what the HAI model says. The HAI model having been developed by AT&T generally has a downward bias to it. So it was just to illustrate that under any reckoning $10.49 does not represent the true cost of providing basic residential service.

Q In your opinion, sir, could you give me a realistic figure as to how many facilities-based competitors could Alltel's service territory support if Alltel's basic local service were priced at a range between $41.76 and $48.44?

A How many carriers it could support?

Q Yes.

A Just in -- are you trying -- are you isolating the Alltel service area or are you --

Q Yes.

A Well, I don't think that's a realistic, necessarily a realistic question. But just put it this way: Basic economic, microeconomic theory is going to tell you if you price -- the higher you price, the more likely suppliers are to come into the market and supply service.

So how many carriers could it support? I don't know.

If, if statewide the rates were similar or, you know, nationwide, then you would, you would say there would be a lot of carriers coming into Alltel because they'd be competing all over.

But to just isolate it to just Alltel when the market doesn't do that, I really don't know how to answer that.

Q Do you believe Alltel enjoys economies of scale in Florida?

A Well, economies of scale is a relative term. Economies of scale as compared to who, I would have to ask?

Q Well, who competes with you in Alltel's territory?

A Are you saying do they, do they enjoy economies of scale in relation to potential competitors?

Q I guess the question is designed that to the extent a competitor was to come into Alltel's service territory, how likely would it be for them or just one carrier to achieve economies of scale to a level that Alltel currently enjoys?

A Well, to answer your question, I'll give you an example. Say Verizon Wireless decided it was going to push service substitution; in other words, an ad campaign that said get rid of your local phone, your wireline phone and use our wireless service. Do I think Alltel has economies of scale relative to Verizon Wireless? No, not, you know, not even close.

But I think maybe what your question is directed at

is market share. Does, you know, given that Alltel is the incumbent in the, obviously in the Alltel service territory, does that give it a leg up on competitors? Well, certainly it has a leg up on competitors just because it has the customers right now. That's always an advantage. But that advantage will decline every time that rate goes up. Every time Alltel's rate goes up, that advantage gets smaller and smaller. So if you're going to compare the situation at $10.49 versus $16.49, I would say that the advantage is much lower at $16.49 than it is at $10.49.

Q Okay. Do you believe that wireless and VoIP are viewed as -- strike that.

Do you believe that wireless and VoIP are viewed by a majority of customers to be viable substitutes for wireline telecommunications?

A Well, you know, it's funny. I have the technical ability of a tree, and so these kind of things always scare me, you know, VoIP and Skype and things like that. Well, I started using Skype and it's getting easier and easier. So I think right now a lot of people are afraid of the new technology. You know, they don't want another situation where they can't program the VCR when it comes to their phone service. Okay. They're afraid of it. But I think it's getting easier and easier and the companies are starting to market it in that way.

That Vonage commercial I saw this morning, the gist

of it was -- price was sort of secondary. What the real message that they're trying to bring out was this is really easy. You hook up your regular phone to it and off you go.

So I think whatever the percentage is of customers who would feel comfortable with it now, that is increasing and I would think increasing at an increasing rate as people get used to the technology.

Q But going back to the question, do you believe it's viewed by the majority of customers to be a viable substitute?

A Well, my answer is I don't know what the majority of companies do. But I think that every day more and more people are getting comfortable with it.

Q Okay.

A And, therefore, it becomes a viable substitute.

Q Fair enough. My next question refers to staff's interrogatory number 33, and we're looking at the second paragraph.

A Oh, I'm sorry.

MR. WAHLEN: Second paragraph?

MR. SUSAC: Yes. Second paragraph.

BY MR. SUSAC:

Q And you've had time to review that?

A Yes.

Q Okay. In this response you list the cost of competitors' own facilities as a factor in determining the

decision to offer local service. You also list facilities that can be used to provide voice services as including cable TV facilities, electrical power lines, gas lines for conduit for running fiber, other right-of-way and wireless facilities. My first question is can you explain what you mean by other right-of-way?

A Well, I think one of the costs of telephone network are, is provisioning the outside plant. One of the big components of that is securing the right-of-ways and the routes that would be needed. And so, therefore, if you already have that, you have a leg up. All these things, cable TV, electric, gas, you know, the oil pipeline companies that have their own fiber network running here and there, if they had facilities that they're using for one purpose that they can also piggyback off those facilities and use it to provide local service, you know, that means that the, the average cost across the two services goes down.

Q To your knowledge are any owners of such facilities that we just referenced in Alltel Florida's service territory currently providing voice service other than wireless providers?

A Well, as I recall in my testimony, some of the cable TV folks are either providing service or have announced that they will provide service in the Alltel Florida territory.

Q Okay. And was that off your, off the website you saw

that?

A Yeah, I believe so.

Q Okay. I remember reading that. What -- is that a, a, in all of Alltel Florida's --

A I believe it was in, it was in pieces, parts of Alltel's service territory. But I think the key point is that, you know, just because, you know, a cable company serving a particular area hasn't announced that they're doing it yet, it is an option and it is an option I'm sure they're looking at. And one of the things that's going to drive, is going to drive their decision is what the market price is for local service, and right now the market price is $10.49 for residential.

Q And in this same response to staff's number 33, you list market research and demographics as a factor influencing the market entry decision. Can you please tell me the particular customer demographics of Alltel Florida's service territory that might exert a positive influence on a competitor's decision to enter the market?

A Well, my understanding is that Alltel Florida's service territory is, is not, wouldn't be classified or considered to be low income and, therefore, income level is one of those demographics that's, that's very important. In fact, if you compare the demographics, and I think I did in the testimony, between the rural areas served by Sprint, BellSouth and Verizon in Florida to that of Alltel, you don't see, you

don't see any dramatic difference between density, in terms of density or income or anything like that.

Q And were those -- to your knowledge has Alltel conducted any Florida-specific demographic and/or market research regarding any of its product offerings?

A I'm not aware of any, no.

Q Okay. Just a few more questions, sir. Now turning to staff interrogatory number 46. And this, we kind of touched upon this a little bit earlier. In the third paragraph you state that Time Warner Cable and Cox Communications have announced through their web sites that they intend to offer voice service in Alltel's territory. Are you referring to Alltel Florida's territory?

A Let's see. I believe in that, in that -- I'm not sure. I think in this passage I think we're referring to Alltel Corporation or the Alltel system.

Q To your knowledge is Time Warner and/or Cox Cable going to penetrate Alltel's market here in Florida?

A Off the top of my head, I don't know.

Q Okay.

MR. WAHLEN: Jeremy, Bettye Willis is probably a little more tuned into that.

MR. SUSAC: Bettye Willis? Sure.

Sorry.

THE WITNESS: That's all right.

BY MR. SUSAC:

Q Okay. Now turning to staff interrogatory number 73. I think we've already briefly touched on this one.

Alltel states that, "While it may be expensive for a wireline-based CLEC to replicate Alltel's PSTN network in rural area," and the quote goes on. In light of this statement, how likely is it that approval of Alltel's petition will provide the appropriate incentive to facilities-based providers to enter Alltel's service territory?

A Well, the intermodal carriers don't have that constraint, so I think the increased incentive certainly exists there. And whether you, you subscribe to the FCC's definition or definition of a few years ago where UNE loop, competitors using UNE loop were considered to be facilities-based, the cost of building a circuit switched-based infrastructure doesn't apply there either. So I think for people that want to use UNE-based, UNE-based service as the competitive entry vehicle or intermodal, an intermodal service, I think the incentives are there. Increase the price and people will be more interested.

Q Is that across the board with traditional CLECs and intermodal or do you draw a distinction between the two?

A Well, if you're talking about people that are actually going to construct their own facilities, the market price certainly will make it easier for them to prove in their,

their business plans in the Alltel Florida territory. If you raise that price, it makes it easier for their business plans to go into the black. But -- and the outside plant tends to be the most expensive part.

What I was saying is that intermodal as well as UNE-based competition is going to have that incentive without -- it's going to have even more incentive because it doesn't have that infrastructure problem.

Q And how are you defining facilities-based or UNEs-based, I think you said?

A Well, that was when I said the FCC's definition of a few years ago where they considered competitors that were buying UNEs or providing service over UNEs to be, quote, unquote, facilities-based. So I didn't know how you meant your question, so.

Q Was that for purposes of ETC status or is that across the board facilities-based?

A Well, you know, they used it for universal service purposes in ETC status determinations. But I think they referred to leasing the lines as being the same as actually building them. I think in more recent years they made a distinction and said, hey, we really want to see more competitive facilities out there and less UNE. But I didn't know what you meant by the question, so I figured I'd answer it both ways.

Q I appreciate that, too.

Going on to staff's interrogatory number 73, Alltel cites the orders for the Sprint, BellSouth and Verizon rebalancing dockets as support for rebalancing in rural areas. Do you consider Alltel Florida to be a predominantly rural carrier?

A I believe it's classified that way, yes.

Q And do you consider Sprint Florida to be a predominantly rural carrier?

A Well, what I do know, and as I said in the, in testimony, those companies have far more rural customers than Alltel does. What I'm afraid of here is that your, that if Alltel's petition isn't granted or if another small company, small rural company's petition is not granted because they just do provide rural service, that sets up sort of a dichotomy between the big companies and the small companies. And my, my main concern about this is, is that those, that support flow, those revenues that are generated by access aren't going to be around much longer. And to the extent that those revenues go away and there's not a corresponding recovery on the local side, that means that Alltel is less likely or anybody is less likely to invest in the rural properties. It's, it's a, it's a dangerous thing in my mind.

Q And going back to that final order that Alltel cites, does it, does it make any reference to rural carriers or rural

customers for BellSouth, Sprint and Verizon?

A I don't believe they make any distinction.

Q Without making that distinction or without specifying rural customers or carriers, do you believe the conclusions reached in that order appropriately apply to a rural carrier?

A I believe -- you know, there was a number of conclusions reached in that order, but I believe that the rebalancing provisions in the statute are, are right on target. I think that the access rates are way too high. You know, Alltel's access rate is 11 cents a minute. If you look -- I don't know -- I don't care what kind of cost study you use, it would be very hard to come up with anything close to 11 cents a minute on a two-way, two-way access call.

That support flow is drying up. People are using their wireless phone. You know, if the access rate is 11 cents a minute, that means the retail toll rate, at least for a regional carrier like Alltel that's actually paying it, has got to reflect that. And that means people's long distance bills are a lot higher than they should be. And what does that mean? That means they're going to look for alternatives, wireless being the most obvious one for toll. That means that that support flow is going away.

And, you know, I think that the, the statute is right on by saying that, following the FCC's direction and the '96 Act's direction, those support flows, implicit support flows

have got to go because they're not sustainable.

Q And --

MR. WAHLEN: Did he answer your question? I think it called for a yes or no, and I'm not sure he answered the question. Can you ask it again and make sure he --

BY MR. SUSAC:

Q Sure. Well, just to briefly go back to the line of questioning, we were talking about the Commission orders in the Verizon, Sprint and BellSouth docket and we were talking about rural versus nonrural. To the extent the Commission order did not address the rural versus nonrural, do you still believe that the conclusions reached in that order are appropriately applied to a rural carrier such as Alltel?

A Well, I think what I -- in the beginning of my answer I said, you know, there was a lot of conclusions reached. But the conclusion that there should be rebalancing reductions in access rates and a corresponding increase in local, yes, I agree with that.

Q Okay. And as we discussed about access rate declines and things of that nature, could you give examples of access revenue going away in Alltel's territory?

A Well, when you say can I point to numbers that show the, that the access revenue is declining or --

Q Would that be confidential?

MR. WAHLEN: Yeah. Let me -- you want to go off the

record for a minute?

MR. SUSAC: Yeah. Can we go off the record?

(Discussion held off the record.)

BY MR. SUSAC:

Q Going back to my, my last and final question, Mr. Blessing. I appreciate your patience with me today. If I can find my last question.

Could you please cite some examples of access revenues going away in Alltel's Florida territory?

A Well, again, the specific numbers are probably best dealt with by Bettye. But I think it's pretty clear that people everywhere, Alltel Florida, everywhere, are using their wireless phones to make, you know, long distance calls because they generally have bundles of minutes that are, you know, that are either statewide, nationwide or whatever.

MR. SUSAC: That concludes all of the questions I have.

Mr. Wahlen, would you like to redirect?

MR. WAHLEN: I just have one.

MR. SUSAC: Okay.

CROSS EXAMINATION

BY MR. WAHLEN:

Q Mr. Blessing, staff asked you a question about whether VoIP, I think, and cable are a substitute for basic residential local service. Was that the question?

MR. SUSAC: Reliable substitute for wireless.

BY MR. WAHLEN:

Q Right. Do you remember that?

A Yes.

Q Okay. And I think your answer included a discussion about how people feel about the technology and maybe they're a little scared of the technology or uncertain about the technology or whatever. Do you remember that?

A Yes.

Q Okay. Whatever their feelings are about the technology, do you believe that increasing Alltel's R1 rate to an average of $16.49 is going to make Alltel customers more likely to substitute VoIP or some other type of service for Alltel's?

A Absolutely. Yes.

MR. WAHLEN: Thank you. No more questions.

MR. SUSAC: That concludes our deposition. I thank you very much.

(Deposition concluded at 11:20 a.m.)

ERRATA SHEET

DO NOT WRITE ON TRANSCRIPT - ENTER CHANGES HERE

IN RE: DOCKET NO. 050693-TL
NAME: DAVID C. BLESSING
DATE: November 21, 2005

PAGE	LINE	CHANGE

Under penalties of perjury, I declare that I have read my deposition and that it is true and correct subject to any changes in form or substance entered here.

______________ DATE

______________ DAVID C. BLESSING

STATE OF FLORIDA)
: CERTIFICATE OF OATH
COUNTY OF LEON)

I, the undersigned authority, certify that DAVID C. BLESSING personally appeared before me and was duly sworn.

WITNESS my hand and official seal this 22nd day of November, 2005.

Linda Boles
MY COMMISSION # DD221545 EXPIRES
August 29, 2007
BONDED THRU TROY FAIN INSURANCE, INC

Linda Boles

LINDA BOLES
Notary Public - State of Florida

STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, LINDA BOLES, RPR, CRR, Official FPSC Commission Reporter, do hereby certify that I was authorized to and did stenographically report the foregoing deposition at the time and place herein stated.

I FURTHER CERTIFY that this transcript, consisting of 40 pages, constitutes a true record of the testimony given by the witness.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 22ND DAY OF NOVEMBER, 2005.

Linda Boles

LINDA BOLES, RPR, CRR
Official FPSC Hearings Reporter
850/413-6734

EXHIBIT NO. _____

DOCKET NO.: 050693-TL

WITNESS: Alltel-4

PARTY: Alltel

DESCRIPTION: Public Service Hearing Notices

1. Public Service Hearing Notices published in local newspapers for Alachua and Live Oak p. 1

PROFFERING PARTY: STAFF

I.D. # Alltel-4

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 6
Company/ Alltel
Witness: Alltel-4
Date: 12/01/05

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NOTES:

Alltel Public Hearing Ad

43

MELROSE

Reserve space now for dinner performance

Reservations are now being accepted for the Lake Area Singers benefit Madrigal Dinner.

The dinners will be held at 7 p.m. Dec. 16-17 at Trinity Episcopal Church in Melrose and will benefit Lake Area Ministries and other local charities. Reservations must be made before Dec. 8 by calling 475-[illegible]. Admission is $20.

Featured will be two evenings of seasonal and secular Renaissance music in an Elizabethan setting.

SPIRIT OF THE SUWANNEE MUSIC PARK

Gospel sing Friday

Enjoy Southern gospel, bluegrass gospel, country gospel and even some Native American flute music at the Old Tyme Gospel Sing.

It will be held at 7 p.m. Friday at the Spirit of the Suwannee Music Park, located at 3076 [illegible] 129 in Live Oak. The event is free and open to everyone. There also will be popcorn

sion is $4 per car. A self-guided farm tour will be held from 9 a.m. to 4 p.m.

The site, a gift to the state, is a living history working farm spanning over 150 years of the Dudley family who lived there until 1983.

For more information, call 472-1142, or visit www.floridastateparks.org/dudleyfarm.

MELROSE

Library having tree decorating workshop

■ Melrose Public Library is continuing its free workshops for teens and adults interested in making decorations for the library's holiday tree.

The last workshop will be held from 10 a.m. to noon Tuesday at the library. All patterns and materials will be provided.

The library's tree decorating celebration will be held from 1 to 3 p.m. Friday, Dec. 2. Everyone is invited to help decorate, and punch and holiday treats will be served. This year's tree theme is an "Old-Fashioned Melrose Holiday."

For more information, call the library at 475-1237 from 8:30 a.m. to 6 p.m. Tuesdays through Fridays.

safely remove the nest from his yard. But what he got was a lot more than he asked for.

Word was passed on about the nest. In fact, Browning was surprised when he received a phone call from a professor with Ohio State University asking if he could pass the information on to a friend with National Geographic in Washington, D.C.

It seemed that the excitement about Browning's nest was because of the rarity of finding such a nest active during the cooler months.

Unable to get too close to the actual nest, what Browning knew for sure was that it was located underground and he feared that his granddaughter could wander nearby and get stung.

He certainly had reason to fear this because, the day National Geographic crews were to arrive in Lake Butler, they got word that a man in [illegible] had just been fatally stung by wasps after unknowingly riding his lawn mower over the ground nest.

When Dr. Phil Devries and his National Geographic crew arrived at Browning's residence, filming was done for a three-part series titled "Bugs [illegible]

Attack." Part 1 of the series is titled "Aggression" and the last 20 minutes of that episode was filmed in Lake Butler.

Also included in the segment is a re-enactment of the [illegible] story that was staged in Browning's yard. "It was really exciting to watch them film an actual episode. And Dr. Phil [illegible] as he is on TV."

[illegible] Browning.

Dr. Devries couldn't wait to [illegible] up and explore the area, and along with exterminator Jonathan Simkins of Insect [illegible], they located a hole in the ground that was approximately 2 feet square in diameter.

During the television episode, you see the explorers and even the lens of the camera being covered in swarms of [illegible]. They decided it was best [illegible] to get [illegible].

[illegible] the nest [illegible] in the ground. Eventually the [illegible] to allow them to reach inside and pull out the large pieces of the nesting area.

The good news is that the nest was completely removed from Browning's yard. The bad news, according to Dr. Devries, is that the nest they uncovered likely was an

[illegible] offi[illegible] whe[illegible] is a[illegible] the [illegible] noon p.m.

Notice of Public Hearing

The Florida Public Service Commission announces public hearings in Docket No. 050693-TL, to which all interested persons and parties are invited to attend. This docket addresses Alltel Florida Inc.'s ("Alltel") petition to increase local rates and reduce intrastate switched access rates in a revenue-neutral manner to the company pursuant to Section 364.164, Florida Statutes. The dates, times and locations of the public hearing are:

Monday, November 28, 2005	Monday, November 28, 2005
11:00 a.m.	6:00 p.m.
Alachua City Hall	Live Oak City Hall
City Commission Chambers	City Council Chambers
15001 NW 140th Street	101 SE White Avenue
Alachua, FL 32615	Live Oak, FL 32064

The Florida Public Service Commission is holding these public hearings in the service territories of Alltel to elicit public testimony regarding Alltel's proposal to decrease its intrastate switched access rates and increase its basic residential (R1) rates in three increments of approximately $2.11 over two years to an average rate of $16.49 and business (B1) rates in three increments of approximately $1.47 over two years to an average rate of $30.2[illegible] in a revenue neutral manner to the company as required in Section 364.164. Alltel has proposed to increase certain installation and service charges as well. Public testimony will be received relating to the factors outlined in Section 364.164, Florida Statutes, which the Commission must consider in making its decision in this matter. Members of the public appearing at the hearings shall be subject to cross-examination at the conclusion of their testimony. The proceedings will be governed by the provisions of Chapter 120, F.S., and Chapter 25-28, F.A.C. Any person requiring some accommodation at this hearing because of a physical impairment should call the Division of the Commission Clerk and Administrative Services at (850) 413-6770 at least 48 hours prior to the hearing.

Any person who is hearing or speech impaired should contact the Florida Public Service Commission by using the Florida Relay Service, which can be reached at 1-800-955-8771 (TDD). One or more of the Commissioners of the Florida Public Service Commission may attend and participate in this meeting.

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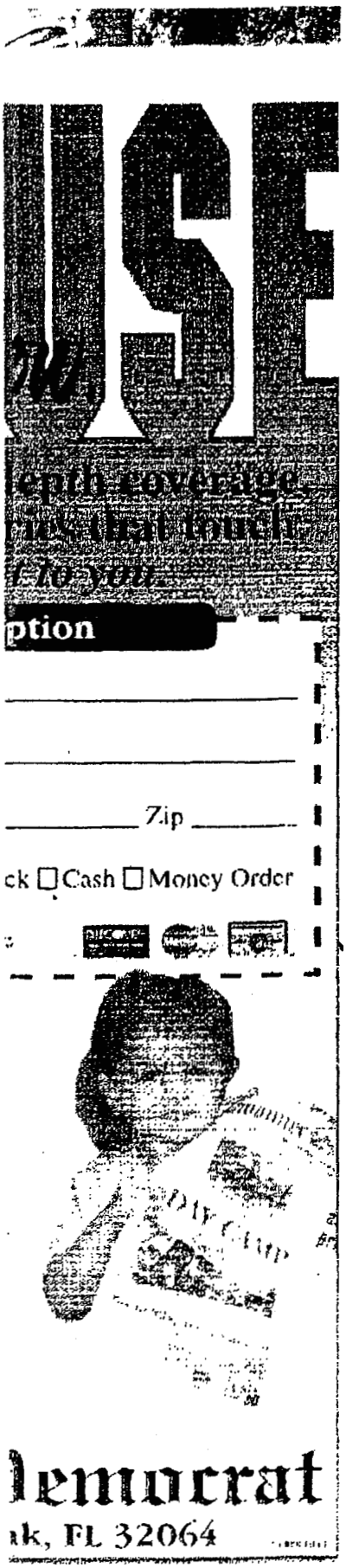

Notice of Public Hearing

The Florida Public Service Commission announces public hearings in Docket No. 050693-TI, to which all interested persons and parties are invited to attend. This docket addresses Alltel Florida, Inc.'s ("Alltel") petition to increase local rates and reduce intrastate switched access rates in a revenue-neutral manner to the company pursuant to Section 364.164, Florida Statutes. The dates, times and locations of the public hearing are:

Monday, November 28, 2005	**Monday, November 28, 2005**
11:00 a.m.	**6:00 p.m.**
Alachua City Hall	Live Oak City Hall
City Commission Chambers	City Council Chambers
15001 NW 140th Street	101 SE White Avenue
Alachua, FL 32615	Live Oak, FL 32064

The Florida Public Service Commission is holding these public hearings in the service territories of Alltel to elicit public testimony regarding Alltel's proposal to decrease its intrastate switched access rates and increase its basic residential (R1) rates in three increments of approximately $2.11 over two years to an average rate of $16.49 and business (B1) rates in three increments of approximately $1.47 over two years to an average rate of $30.27 in a revenue neutral manner to the company as required in Section 364.164. Alltel has proposed to increase certain installation and service charges as well. Public testimony will be received relating to the factors outlined in Section 364.164, Florida Statutes, which the Commission must consider in making its decision in this matter. Members of the public appearing at the hearings shall be subject to cross-examination at the conclusion of their testimony. The proceedings will be governed by the provisions of Chapter 120, F.S., and Chapter 25-28, F.A.C. Any person requiring some accommodation at this hearing because of a physical impairment should call the Division of the Commission Clerk and Administrative Services at (850) 413-6770 at least 48 hours prior to the hearing. Any person who is hearing or speech impaired should contact the Florida Public Service Commission by using the Florida Relay Service, which can be reached at 1-800-955-8771 (TDD). One or more of the Commissioners of the Florida Public Service Commission may attend these public hearings.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-0)
Composite Exhibit – Tables

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-0

Table 1: Comparison of ALLTEL's Rates v. Costs		
	1R Local Service	Intrastate Switched Access
Avg. Current Rate	$ 10.49	$ 0.110222
Avg. Proposed Rate	$ 16.49	$ 0.057362
BCPM 3.1 Defaults	$ 66.37[1]	
Embedded Cost	$ 41.32[2]	
HAI 5.0a Cost	$ 48.44	$ 0.03243

[1] See In re: *Determination of the cost of basic local telecommunications service, pursuant to Section 364.025,Florida Statues*, Docket No. 980696-TP, Order No. PSC-99-0068-FOF-TP p. 241. See Exhibit ___ (DCB-6).

[2] Id. p. 241. Note that embedded cost is "per Commission" which uses the small LECs' methodology and the Commission's adjustments.

Table 2: Distribution of Household Income in Florida					
Band	**Household Income**		**# of Households**	**% of Total House- holds**	**Telephone as a % of Annual Income[3]**
1	$ 1 to $ 9,999		606,995	9.6%	0.7%[4]
2	$ 10,000 to $ 14,999		427,050	6.7%	1.6%
3	$ 15,000 to $ 24,999		918,455	14.5%	1.0%
4	$ 25,000 to $ 34,999		901,454	14.2%	0.7%
5	$ 35,000 to $ 49,999		1,103,554	17.4%	0.5%
6	$ 50,000 to $ 74,999		1,170,569	18.5%	0.3%
7	$ 75,000 to $ 99,999		552,379	8.7%	0.2%
8	$ 100,000 to $ 149,999		398,860	6.3%	0.2%
9	$ 150,000 to $ 199,999		114,432	1.8%	0.1%
10	$ 200,000 and higher		147,373	2.3%	0.1%
	Total		**6,341,121**		
	Median Income	**38,819**			0.5%
	Poverty Level	**$ 12,172**			1.6%
	Household @ 100% Poverty		**792,640**	**12.5%**	

[3] The percentage is based on an annual expenditure of $197.88 divided by the average Household income in each band. For example, the average household income in Band 1 is $5,000 ($1 + $9,999 divided by 2 = $5,000). Thus, $197.88 (less $162.00 for Lifeline) divided by $5,000 equals 0.7%.
[4] 0.7% after the Lifeline discount of $13.50 per month is applied to the customer's bill.

Table 3 – Price of Basic Phone Service if it Had Increased at the Same Rate as the Annual Change in the Consumer Price Index

Table 3: Telephone Rates Adjusted for Inflation		
Year	**CPI[5]**	**Average Rate**
		$ 10.49
1984	4.3%	$ 10.94
1985	3.6%	$ 11.33
1986	1.9%	$ 11.55
1987	3.6%	$ 11.97
1988	4.1%	$ 12.46
1989	4.8%	$ 13.05
1990	5.4%	$ 13.76
1991	4.2%	$ 14.34
1992	3.0%	$ 14.77
1993	3.0%	$ 15.21
1994	2.6%	$ 15.61
1995	2.8%	$ 16.04
1996	3.0%	$ 16.52
1997	2.3%	$ 16.90
1998	1.6%	$ 17.17
1999	2.2%	$ 17.55
2000	3.4%	$ 18.15
2001	2.8%	$ 18.66
2002	1.6%	$ 18.96
2003	2.3%	$ 19.39
2004	2.7%	**$ 19.92**
Cumulative Increase	**90%**	$ 9.43

[5] CPI - All Urban Consumers - All Items - Year to Year Average Change in CPI; U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C. 20212; Consumer Price Index, All Urban Consumers – (CPI-U), U.S. City Average – All Items. See Exhibit ___ (DCB-25).

Table 4: Comparison of Price of Communications Services in Florida

Table 4: Penetration of Communication Services				
	Price	**Subscribers**	**Households**	**Penetration**
Population (2004)		17,397,161	6,749,036	
Wireline Telephones	$16.49	11,418,566	6,384,588	94.6%
Cellular Telephones	$50.64	11,916,615		68.5%
Cable TV	$38.23		5,069,700	74.1%
Internet	$39.95		1,653,537	24.5%

Table 5: A Comparison of the Price of Communications Services in Florida as a Percentage of Household Income.

Table 5: Affordability of Telecommunications Services Based on Income						
Band	**Household Income**	**% of Total**	**ALLTEL's Proposed Rate**	**Wireless Calling Plan**	**Basic Cable TV**	**Broadband Internet Service**
Monthly			$ 16.49	$ 50.64	$ 38.23	$ 39.95
Annually			$ 197	$ 608	$ 459	$ 479
1	$ 1 to $ 9,999	9.6%	0.7%[6]	12.2%	9.2%	9.6%
2	$ 10,000 to $ 14,999	6.7%	1.6%	4.9%	3.7%	3.8%
3	$ 15,000 to $ 24,999	14.5%	1.0%	3.0%	2.3%	2.4%
4	$ 25,000 to $ 34,999	14.2%	0.7%	2.0%	1.5%	1.6%
5	$ 35,000 to $ 49,999	17.4%	0.5%	1.4%	1.1%	1.1%
6	$ 50,000 to $ 74,999	18.5%	0.3%	1.0%	0.7%	0.8%
7	$ 75,000 to $ 99,999	8.7%	0.2%	0.7%	0.5%	0.5%
8	$ 100,000 to $149,999	6.3%	0.2%	0.5%	0.4%	0.4%
9	$ 150,000 to $199,999	1.8%	0.1%	0.3%	0.3%	0.3%
10	$ 200,000 and higher	2.3%	0.1%	0.3%	0.2%	0.2%
	Median Income $ 38,819		0.5%	1.6%	1.2%	1.2%
	Poverty Level $ 12,172		1.6%	5.0%	3.8%	3.9%

[6] 0.7% after the Lifeline discount of $13.50 per month is applied to the customer's bill.

Table 6: Local Residential Rates Adjusted to Real (2004) Dollars

State & ILEC	Inflation Adjusted Price	Year Rate Approved	Approved Rate
Florida – ALLTEL	$ 19.92	1984	$ 10.49
Alabama - BellSouth	$ 20.80	1995	$ 16.30
California – GTE	$ 22.01	1995	$ 17.25
California – PacBell	$ 14.36	1995	$ 11.25
Florida – BellSouth	$ 15.65	2003	$ 14.90
Florida – Verizon	$ 17.64	2003	$ 16.79
Florida – Sprint	$ 19.27	2003	$ 18.34
Puerto Rico	$ 29.45	1982	$ 14.58
Kansas – SBC	$ 15.66	2000	$ 13.80
Kansas – Sprint	$ 13.62	2000	$ 12.00
Kentucky – BellSouth	$ 20.88	2000	$ 18.40
Michigan – Independents	$ 15.37	1998	$ 13.05
Montana - Qwest	$ 24.01	1998	$ 20.38
Nebraska - Qwest	$ 20.62	1998	$ 17.50
Utah – Qwest	$ 16.95	1997	$ 14.06
Wyoming - Qwest	$ 26.79	1999	$ 23.10
Average Rate	**$ 19.56**		

Table 7

COMPARISON OF REBALANCED LOCAL RATES

	Verizon	BellSouth	Sprint	ALLTEL
Former Rates				
Lowest	$ 9.72	$ 7.57	$ 7.63	$9.64
Highest	$ 12.06	$ 11.04	$ 11.48	$12.67
Average	$ 10.89	$ 9.31	$ 9.56	$10.49
Rate Increase[7]	$ 4.73	$ 3.86	$ 6.86	$6.00
New Rates				
Lowest	$ 14.45	$ 11.43	$ 14.49	$15.64
Highest	$ 16.79	$ 14.90	$ 18.34	$18.67
Average	$ 15.62	$ 13.17	$ 16.42	$16.49

[7] See Large LEC Rebalancing Order, pp. 36 – 37.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-1)
U.S. Telephone Subscribership-2003

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-1

Belinfante, Alexander; *Telephone Subscribership in the United States (Data Through March 2003)*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 2; Released November 2003.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 8
Company/ Alltel
Witness: David C. Blessing (DCB-1)
Date: 12/01/05

NEWS

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FOR IMMEDIATE RELEASE
November 4, 2003

NEWS MEDIA CONTACT:
Michael Balmoris 202-418-0253
Email michael.balmoris@fcc.gov

FCC RELEASES NEW TELEPHONE SUBSCRIBERSHIP REPORT

Washington, D.C. – The Federal Communications Commission (FCC) today released its latest report on telephone subscribership levels in the United States. The report presents subscribership statistics based on the Current Population Survey (CPS) conducted by the Census Bureau in March 2003. Statistics from that survey estimated that 95.5% of all households in the United States had telephone service. The report also shows subscribership levels by state, income level, race, age, household size, and employment status.

Statistical Summary

In March 2003:

- The telephone subscribership penetration rate in the U.S. was 95.5%. It is up 0.2% from the last report, for November 2002.
- The telephone penetration rate was 80.5% for households with annual incomes below $5,000, while the rate for households with incomes over $75,000 was 99.3%.
- By state, the penetration rates ranged from a low of 90.5% in Alabama to a high of 98.5% in Maryland.
- Households headed by whites had a penetration rate of 96.2%, while those headed by blacks had a rate of 91.0% and those headed by Hispanics had a rate of 92.3%.
- By age, penetration rates ranged from 90.4% for households headed by a person under 25 to 97.3% for households headed by a person between 60 and 64.
- Households with one person had a penetration rate of 92.6%, compared to a rate of 97.0% for households with four or five persons.
- The penetration rate for unemployed adults was 92.5%, while the rate for employed adults was 96.7%.

This report is updated three times a year and is available in the FCC's Reference Information Center, Courtyard Level, 445 12th Street SW, Washington, DC 20554. Call Qualex International at (202) 863-2893 to purchase a copy. This report can also be downloaded from the FCC-State Link Internet site at < http://www.fcc.gov/wcb/iatd/stats.html >.

-FCC-

Wireline Competition Bureau contact: Alexander Belinfante at (202) 418-0944;
TTY (202) 418-0484.

TELEPHONE SUBSCRIBERSHIP IN THE UNITED STATES

(Data Through March 2003)

ALEXANDER BELINFANTE

Industry Analysis and Technology Division
Wireline Competition Bureau
Federal Communications Commission

Released: November 2003

This report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street SW, Washington, DC. 20554. Call Qualex International at (202) 863-2893 to purchase a copy. The report can also be downloaded from the FCC-State Link Internet site at <http://www.fcc.gov/wcb/iatd/stats.html>.

Telephone Subscribership in the United States
(Data through March 2003)

Executive Summary

This is the Federal Communications Commission's (FCC's) report on telephone subscribership in the United States, presenting subscribership statistics based on the Current Population Survey (CPS) conducted by the Census Bureau in March 2003. Statistics from that survey estimated that 95.5% of all households in the United States had telephone service. The report also shows subscribership levels by state, income level, race, age, household size, and employment status.

Statistical Findings

In March 2003:

- The telephone subscribership penetration rate in the U.S. was 95.5%. It is up 0.2% from the last report, for November 2002.[1]
- The telephone penetration rate was 80.5% for households with annual incomes below $5,000, while the rate for households with incomes over $75,000 was 99.3%.
- By state, the penetration rates ranged from a low of 90.5% in Alabama to a high of 98.5% in Maryland.
- Households headed by whites had a penetration rate of 96.2%, while those headed by blacks had a rate of 91.0% and those headed by Hispanics had a rate of 92.3%.
- By age, penetration rates ranged from 90.4% for households headed by a person under 25 to 97.3% for households headed by a person between 60 and 64.
- Households with one person had a penetration rate of 92.6%, compared to a rate of 97.0% for households with four or five persons.
- The penetration rate for unemployed adults was 92.5%, while the rate for employed adults was 96.7%.

Background

The number and percentage of households that have telephone service represent the most fundamental measures of the extent of universal service. Continuing analysis of telephone penetration statistics allows us to examine the aggregate effects of Commission actions on households' decisions to maintain, acquire or drop telephone service. This report presents comprehensive data on telephone penetration statistics collected by the Bureau of the Census under contract with the FCC. Along with telephone penetration statistics for the United States and each of the states from November 1983 to March 2003, data are provided on penetration based on various demographic characteristics.

The most widely used measure of telephone subscribership is the percentage of households with telephone service, sometimes called a measure of telephone penetration. Prior to the 1980s, precise measurements of telephone subscribership received little attention. Traditionally, telephone penetration was measured by dividing the number of residential telephone lines by the number of households. Measures of penetration based on the number of residential lines, however, became subject to a large margin of error as more and more

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1 Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission, *Telephone Subscribership in the United States* (April 10, 2003).

households added second telephone lines and more consumers acquired second homes. By 1980, the traditional measure of penetration (residential lines divided by the number of households) reached 96%, while the number of households reporting that they had telephones in the 1980 census was 92.9%.

Recognizing the need for more precise periodic measurements of subscribership, the Commission requested that the Census Bureau include questions on telephone availability as part of its CPS, which monitors demographic trends between the decennial censuses. This survey is a staggered panel survey in which the people residing at particular addresses are included in the survey for four consecutive months in one year and the same four months in the following year. Use of the CPS has several advantages: it is conducted every month by an independent and expert agency; the sample is large; and the questions are consistent. Thus, changes in the results can be compared over time with a reasonable degree of confidence.

Unfortunately, the results of the CPS cannot be directly compared with the penetration figures contained in the 1980, 1990, and 2000 decennial censuses. This is due to differences in sampling techniques and survey methodologies and because of differences in the context in which the questions were asked. For example, the 2000 decennial census reported 97.6% of all occupied housing units in the United States had telephone service available, whereas the CPS data showed a penetration rate of 94.6% of households for March 2000. This difference is statistically significant and appears to indicate that the CPS value may be on the low side and the decennial census value may be on the high side, with the most probable value lying somewhere in between.

The specific questions asked in the CPS are: "Is there a telephone in this house/apartment?"[2] And, if the answer to the first question is "no," this is followed up with, "Is there a telephone elsewhere on which people in this household can be called?" If the answer to the first question is "yes," the household is counted as having a telephone "in unit." If the answer to either the first or second question is "yes," the household is counted as having a telephone "available." The "in unit" data are reported in all of the tables and charts in this report. The "available" data are also reported in Tables 3 through 12 and Charts 1 and 8.

Although the survey is conducted every month, not all questions are asked every month. The telephone questions are asked once every four months, in the month that a household is first included in the sample and in the month that the household re-enters the sample a year later. Since the sample is staggered, the reported information for any given month actually reflects responses over the preceding four months. Aggregated summaries of the responses are reported to the Commission, based on the surveys conducted through March, July, and November of each year.

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2 The questions are intended to be neutral as to whether the household has wireline or wireless phones. For the November 2001 survey, households were also asked which type(s) of phones they had. While the response rate was not sufficient for a complete reporting of the results of this follow-up question, 1.2% of the households indicated that they had only wireless phones. 5.9% of the households failed to answer this question. The CPS no longer asks this follow-up question.

The CPS data are based on a nationwide sample of about 50 to 60 thousand households in the 50 states and the District of Columbia. (The CPS does not cover outlying areas that are not states, such as Puerto Rico, Guam, American Samoa, the Virgin Islands, and the Northern Mariana Islands.) Because a sample is used, the estimates are subject to sampling error. For the nationwide totals, changes in telephone penetration between consecutive reports of less than 0.4% may be due to sampling error and cannot be regarded as statistically significant. As explained below, when comparing the same month in two consecutive years, changes of less than or equal to 0.3% are not statistically significant. When comparing annual averages, changes of less than or equal to 0.2% are not statistically significant. The annual averages are the average of the three surveys of the year in question. For individual states or other subgroups of the U.S. population, the amount of sampling variability is much greater, because the sample sizes are smaller. This will require larger changes to yield statistical significance at the same confidence level.

The data in this report are not seasonally adjusted. After adjusting for the trend over time, there is an average increase of 0.2% between November and March, followed by an average decrease of less than 0.1% between March and July and an average decrease of more than 0.1% between July and November. The change from November to March is just above the threshold of statistical significance.

Results and Statistical Analysis

Census Bureau figures for March 2003, the most recent data available, show that the percentage of households subscribing to telephone service is 95.5%. This is unchanged from March 2002. This level matches the highest recorded penetration level for households included in the CPS.

This report includes figures showing subscribership percentages by state, by the head of the household's age and race, by household size, by income, and, for adult individuals, by labor force status. The March 2003 data show that 96.2% of adult individuals in the civilian non-institutionalized population have a telephone in their household. This figure is unchanged from March 2002. This level matches the highest recorded penetration level for individuals included in the CPS.

This report contains twelve tables and eight charts presenting penetration statistics for various geographic and demographic characteristics. The charts and the first two tables present summaries of the available information. Tables 3 through 7 present more detailed information. In these tables, only the annual averages are included for the years 1984 through 1999. March, July, and November data for those years are available in previous subscribership reports or Monitoring Reports in CC Docket Nos. 87-339 or 98-202. Tables 8 through 12 provide information necessary to determine the statistical significance of changes in the penetration rates over time.

Table 1 summarizes the telephone penetration for the United States, combining information on the number of households with the penetration rates.

Chart 1 graphically depicts the nationwide penetration rates for households over time.

Table 2 summarizes the telephone penetration rates by state, showing the rates for November 1983 and March 2003, the change between those two months, and an indication as to whether the change is statistically significant. The statistical significance of a change is determined not only by the magnitude of that change, but also by the sizes of the samples used to estimate the change.

Chart 2 depicts the states with March 2003 penetration rates (as shown in Table 2) more than 1% below the national average, within 1% of the national average, or more than 1% above the national average.

Chart 3 depicts changes in household penetration rates by state (as shown in Table 2) between the November 1983 and March 2003 rates. States with statistically significant increases or decreases are shown, along with other states with increases or decreases.

Chart 4 depicts the relationship between telephone penetration and household income, using March 2003 penetration rates for all households and for households headed by white, black, and Hispanic persons. It is based on data in Table 4.

Chart 5 depicts the relationship between telephone penetration and household size, using March 2003 penetration rates for all households and for households headed by white, black, and Hispanic persons. It is based on data in Table 5.

Chart 6 depicts the relationship between telephone penetration and the head of the household's age, using March 2003 penetration rates for all households and for households headed by white, black, and Hispanic persons. It is based on data in Table 6.

Chart 7 depicts the relationship between telephone penetration and labor force status for civilian non-institutionalized adults, using March 2003 penetration rates for all adults and for white, black, and Hispanic adults. It is based on data in Table 7.

Chart 8 graphically depicts the nationwide penetration rates for civilian non-institutionalized adults over time. It is also based on data in Table 7.

Table 3 shows the CPS responses for the United States and for each state beginning with November 1983. Because the CPS began collecting this data only in 1983, comparable values are not available prior to November 1983. For each of the surveys, the column headed "Unit" indicates the percentage of households for which there is a telephone in the housing unit. The column headed "Avail." indicates the percentage of households which have telephone service available for incoming calls, either in the housing unit or elsewhere (such as at work or at a neighbor's home).

Table 4 shows the nationwide penetration rates for households by income and the race of the head of the household. It shows a strong relationship between income and penetration. Caution should be used in comparing these figures over time, because these income levels are not adjusted for inflation. Thus, the same nominal income level at two points in time will reflect

different real incomes in terms of purchasing power.[3] Also, the income categories have changed over time due to the changing value of the dollar.

Table 5 shows the nationwide penetration rates for households by the size of the household and the race of the head of the household. It shows that penetration is higher for households of 2 to 5 people than it is for single-person households or those with 6 or more people.

Table 6 shows the nationwide penetration rates for households by the age and race of the head of the household. It shows that the penetration rate is lowest for young and non-white households.

Table 7 shows the nationwide penetration rates for all persons that are at least 15 years old in the civilian non-institutionalized population by their race and employment status. Since this table is for individual adults rather than households, the total penetration rates are different from those in the previous tables. It shows that penetration is lowest among the unemployed.

Tables 8 through 12 present the critical values at the 95% confidence level for testing the statistical significance of changes in penetration rates over time in the earlier tables. These critical values are relevant because changes less than or equal to the values shown are likely to be due to sampling error and thus cannot be regarded as demonstrating that a change in telephone penetration has occurred. In some cases, these critical values are very large because the sample sizes are very small for these subcategories, rendering the changes in estimated penetration rates unreliable. Because there is an overlap of half of the sample from year to year, but no overlap in the sample between surveys that are four months apart, annual changes are less subject to variations in sampling error. Consequently, the critical values should be multiplied by 0.8 when making a comparison for the same month in two consecutive years. When comparing the annual averages, the critical values should be multiplied by 0.5774, since these averages are based on three surveys and hence have a lower standard error. When comparing annual averages of two consecutive years, the critical values should be multiplied by .46, taking into account both of the above factors.

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3 Our publication *Telephone Penetration by Income by State* (last published April 23, 2002) makes adjustments for inflation, making comparisons over time more appropriate.

Table 1
Household Telephone Subscribership in the United States

Date	Households (millions)	Households with Telephones (millions)	Percentage with Telephones	Households without Telephones (millions)	Percentage without Telephones
November 1983	85.8	78.4	91.4%	7.4	8.6%
March 1984	86.0	78.9	91.8%	7.1	8.2%
July 1984	86.6	79.3	91.6%	7.3	8.4%
November 1984	87.4	79.9	91.4%	7.5	8.6%
March 1985	87.4	80.2	91.8%	7.2	8.2%
July 1985	88.2	81.0	91.8%	7.2	8.2%
November 1985	88.8	81.6	91.9%	7.2	8.1%
March 1986	89.0	82.1	92.2%	6.9	7.8%
July 1986	89.5	82.5	92.2%	7.0	7.8%
November 1986	89.9	83.1	92.4%	6.8	7.6%
March 1987	90.2	83.4	92.5%	6.8	7.5%
July 1987	90.7	83.7	92.3%	7.0	7.7%
November 1987	91.3	84.3	92.3%	7.0	7.7%
March 1988	91.8	85.3	92.9%	6.5	7.1%
July 1988	92.4	85.7	92.8%	6.7	7.2%
November 1988	92.6	85.7	92.5%	6.9	7.5%
March 1989	93.6	87.0	93.0%	6.6	7.0%
July 1989	93.8	87.5	93.3%	6.3	6.7%
November 1989	93.9	87.3	93.0%	6.6	7.0%
March 1990	94.2	87.9	93.3%	6.3	6.7%
July 1990	94.8	88.4	93.3%	6.4	6.7%
November 1990	94.7	88.4	93.3%	6.3	6.7%
March 1991	95.3	89.2	93.6%	6.1	6.4%
July 1991	95.5	89.1	93.3%	6.4	6.7%
November 1991	95.7	89.4	93.4%	6.3	6.6%
March 1992	96.6	90.7	93.9%	5.9	6.1%
July 1992	96.6	90.6	93.8%	6.0	6.2%
November 1992	97.0	91.0	93.8%	6.0	6.2%
March 1993	97.3	91.6	94.2%	5.7	5.8%
July 1993	97.9	92.2	94.2%	5.7	5.8%
November 1993	98.8	93.0	94.2%	5.8	5.8%
March 1994	98.1	92.1	93.9%	6.0	6.1%
July 1994	98.6	92.4	93.7%	6.2	6.3%
November 1994	99.8	93.7	93.8%	6.2	6.2%
March 1995	99.9	93.8	93.9%	6.1	6.1%
July 1995	100.0	94.0	94.0%	6.0	6.0%
November 1995	100.4	94.2	93.9%	6.2	6.1%
March 1996	100.6	94.4	93.8%	6.2	6.2%
July 1996	101.2	95.0	93.9%	6.1	6.1%
November 1996	101.3	95.1	93.9%	6.2	6.1%
March 1997	102.0	95.8	93.9%	6.2	6.1%
July 1997	102.3	96.1	93.9%	6.2	6.1%
November 1997	102.8	96.5	93.8%	6.3	6.2%
March 1998	103.4	97.4	94.1%	6.1	5.9%
July 1998	103.4	97.3	94.1%	6.1	5.9%
November 1998	104.1	98.0	94.2%	6.1	5.8%
March 1999	104.8	98.5	94.0%	6.3	6.0%
July 1999	105.1	99.2	94.4%	5.9	5.6%
November 1999	105.4	99.1	94.1%	6.3	5.9%
March 2000	105.3	99.6	94.6%	5.7	5.4%
July 2000	105.8	99.8	94.4%	5.9	5.6%
November 2000	106.5	100.2	94.1%	6.3	5.9%
March 2001	107.0	101.1	94.6%	5.8	5.4%
July 2001	106.9	101.7	95.1%	5.2	4.9%
November 2001	107.7	102.2	94.9%	5.5	5.1%
March 2002	108.3	103.4	95.5%	4.8	4.5%
July 2002	108.5	103.2	95.1%	5.3	4.9%
November 2002	109.0	104.0	95.3%	5.1	4.7%
March 2003	112.1	107.1	95.5%	5.0	4.5%

Note: Details may not appear to add to totals due to rounding.

Chart 1

Telephone Penetration

Households

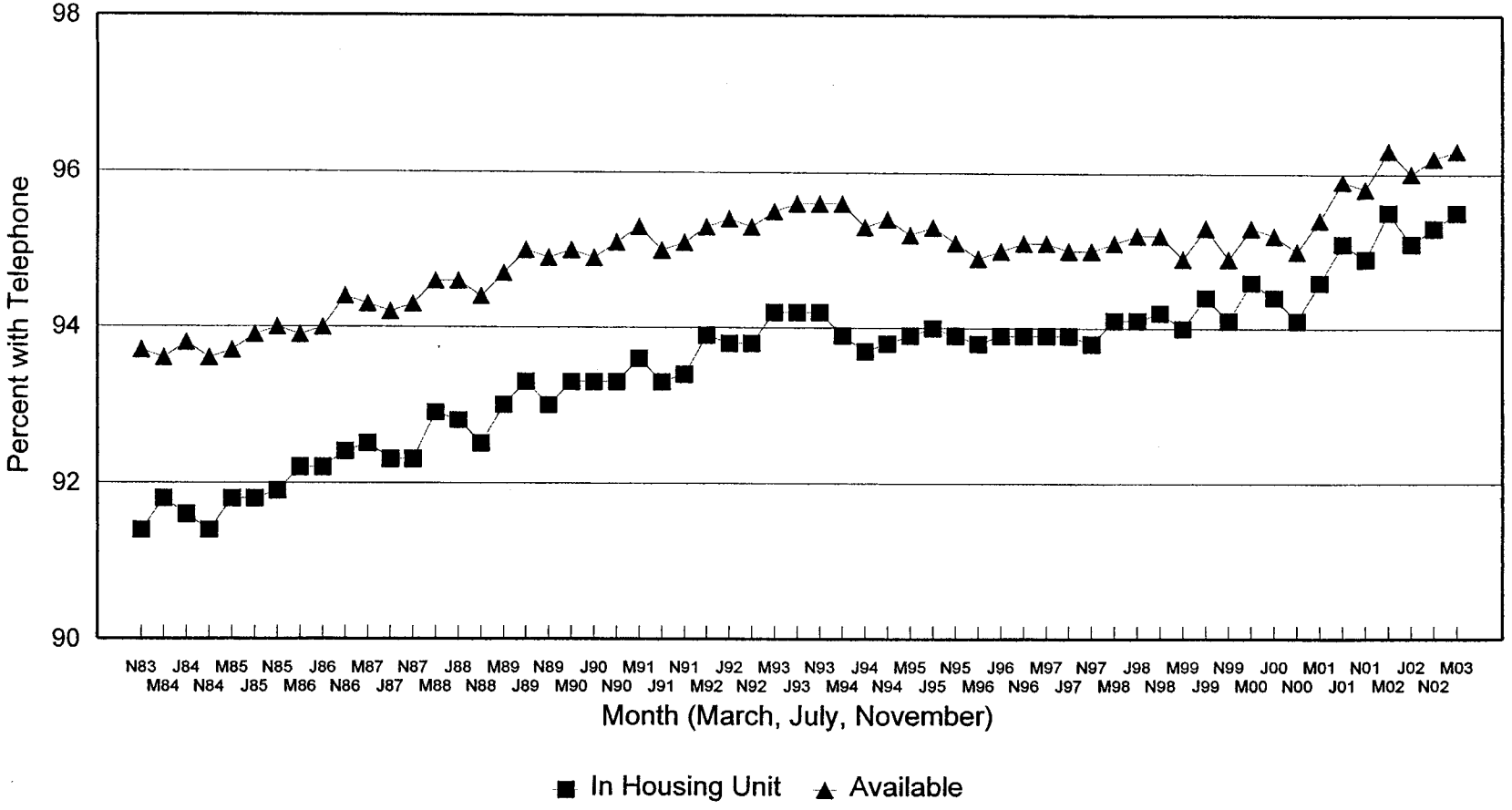


Table 2
Telephone Penetration by State
(Percentage of Households with Telephone Service)

State	November 1983	March 2003	Change	
Alabama	87.9 %	90.5 %	2.6 %	
Alaska	83.8	96.8	13.0	*
Arizona	88.8	95.6	6.8	*
Arkansas	88.2	93.0	4.8	*
California	91.7	97.2	5.5	*
Colorado	94.4	97.0	2.6	*
Connecticut	95.5	97.6	2.1	
Delaware	95.0	96.9	1.9	
District of Columbia	94.7	95.1	0.4	
Florida	85.5	95.0	9.5	*
Georgia	88.9	95.2	6.3	*
Hawaii	94.6	98.0	3.4	*
Idaho	89.5	94.8	5.3	*
Illinois	95.0	92.4	-2.6	†
Indiana	90.3	93.8	3.5	*
Iowa	95.4	97.0	1.6	
Kansas	94.9	96.3	1.4	
Kentucky	86.9	94.0	7.1	*
Louisiana	88.9	93.4	4.5	*
Maine	90.7	98.0	7.3	*
Maryland	96.3	98.5	2.2	
Massachusetts	94.3	97.1	2.8	*
Michigan	93.8	95.2	1.4	
Minnesota	96.4	96.6	0.3	
Mississippi	82.4	91.3	8.9	*
Missouri	92.1	97.0	4.9	*
Montana	92.8	94.2	1.4	
Nebraska	94.0	96.5	2.5	*
Nevada	89.4	94.9	5.5	*
New Hampshire	95.0	97.5	2.6	
New Jersey	94.1	96.1	2.0	
New Mexico	85.3	93.0	7.7	*
New York	90.8	95.3	4.5	*
North Carolina	89.3	94.4	5.1	*
North Dakota	95.1	94.4	-0.7	
Ohio	92.2	96.6	4.4	*
Oklahoma	91.5	92.7	1.2	
Oregon	91.2	96.7	5.5	*
Pennsylvania	95.1	97.1	2.0	*
Rhode Island	93.3	97.4	4.1	*
South Carolina	81.8	93.6	11.8	*
South Dakota	92.7	94.8	2.1	
Tennessee	87.6	94.3	6.7	*
Texas	89.0	94.8	5.8	*
Utah	90.3	97.7	7.4	*
Vermont	92.7	96.4	3.7	*
Virginia	93.1	95.9	2.8	
Washington	92.5	97.0	4.6	*
West Virginia	88.1	94.9	6.8	*
Wisconsin	94.8	96.3	1.5	
Wyoming	89.7	93.8	4.1	*
Total United States	91.4	95.5	4.1	*

* Increase is statistically significant at the 95% confidence level.
† Decrease is statistically significant at the 95% confidence level.
Differences may not appear to equal changes due to rounding.

Chart 2

March 2003 Telephone Penetration

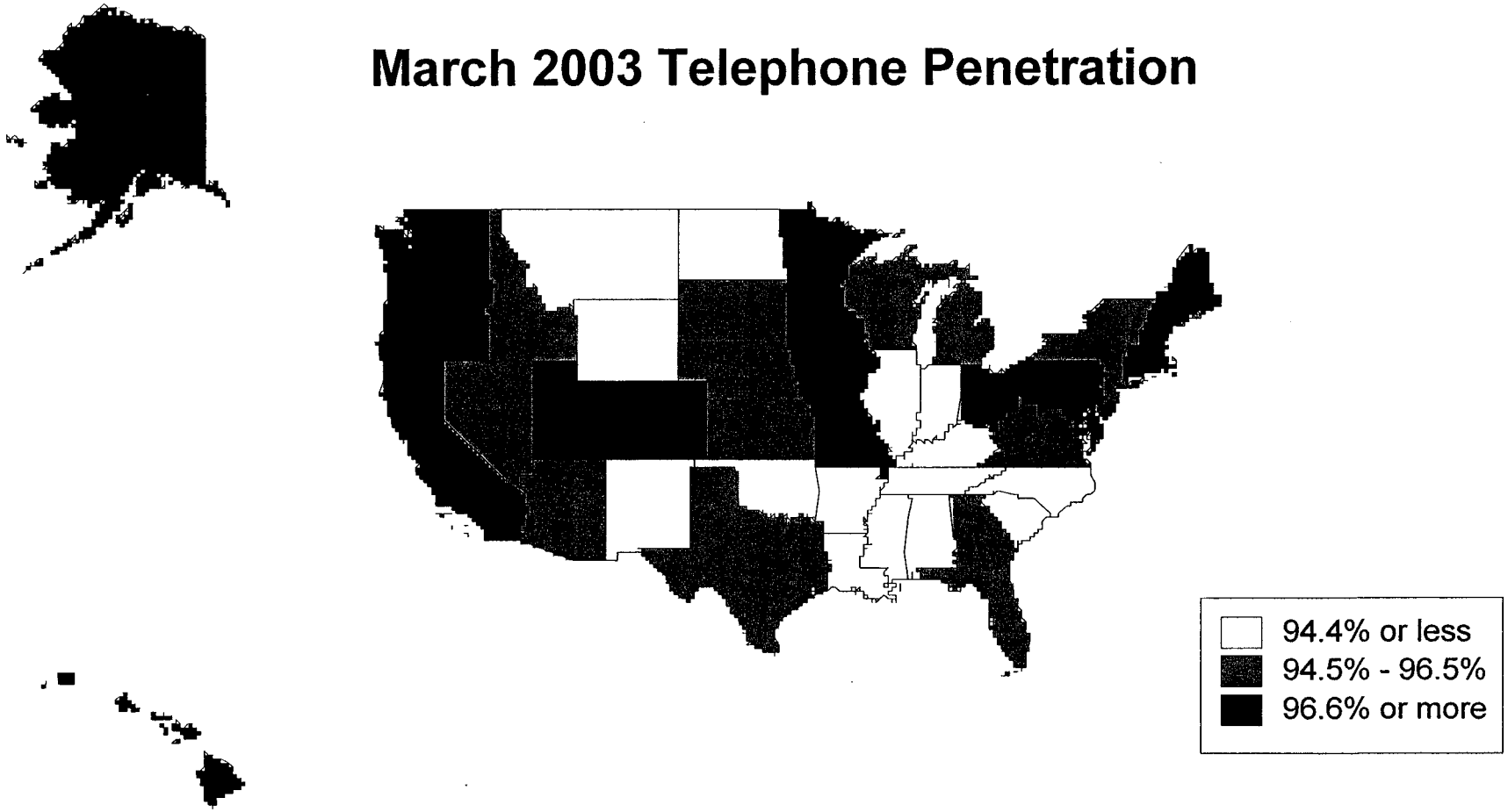


Chart 3

11/83 - 11/02 Penetration Changes

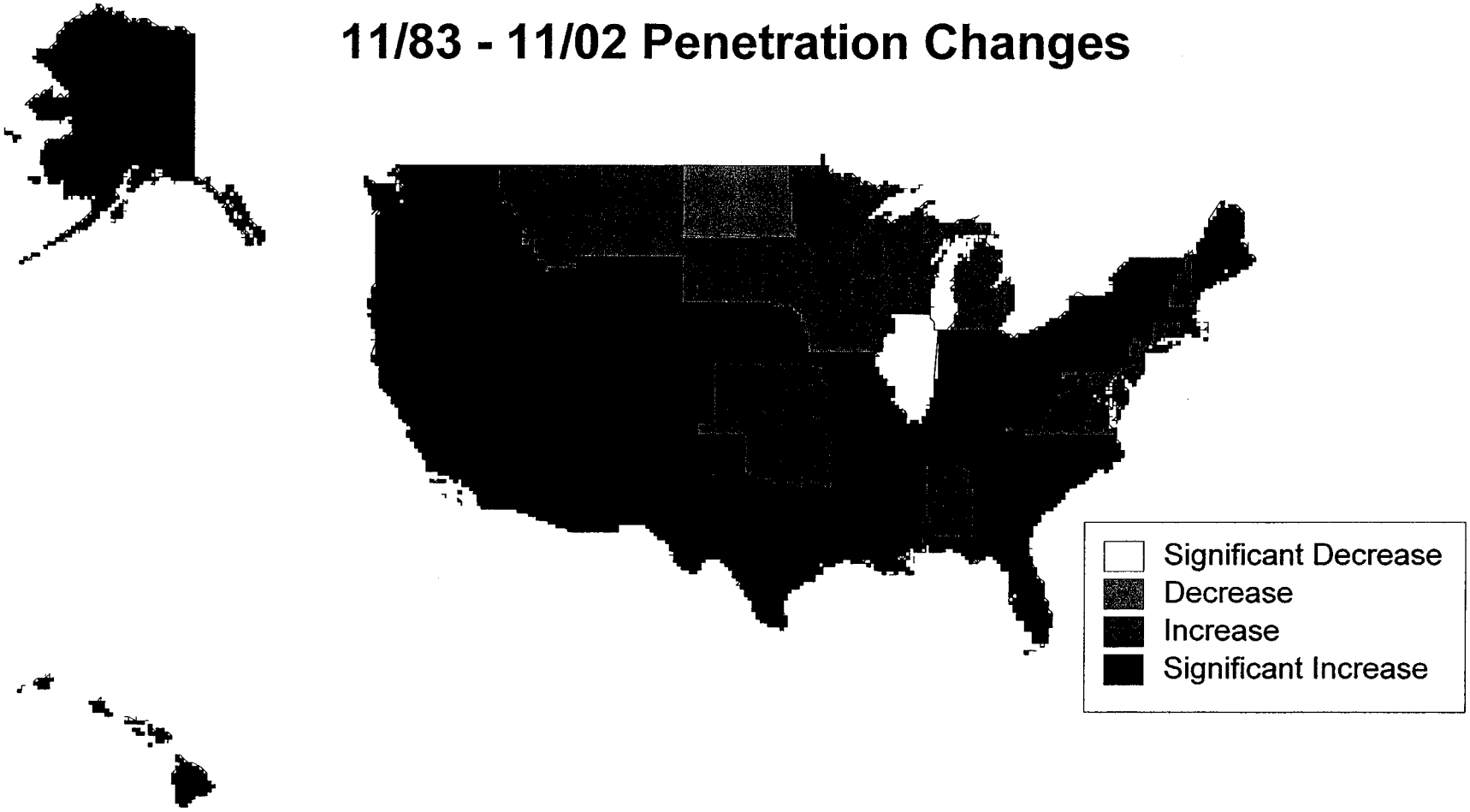


Chart 4

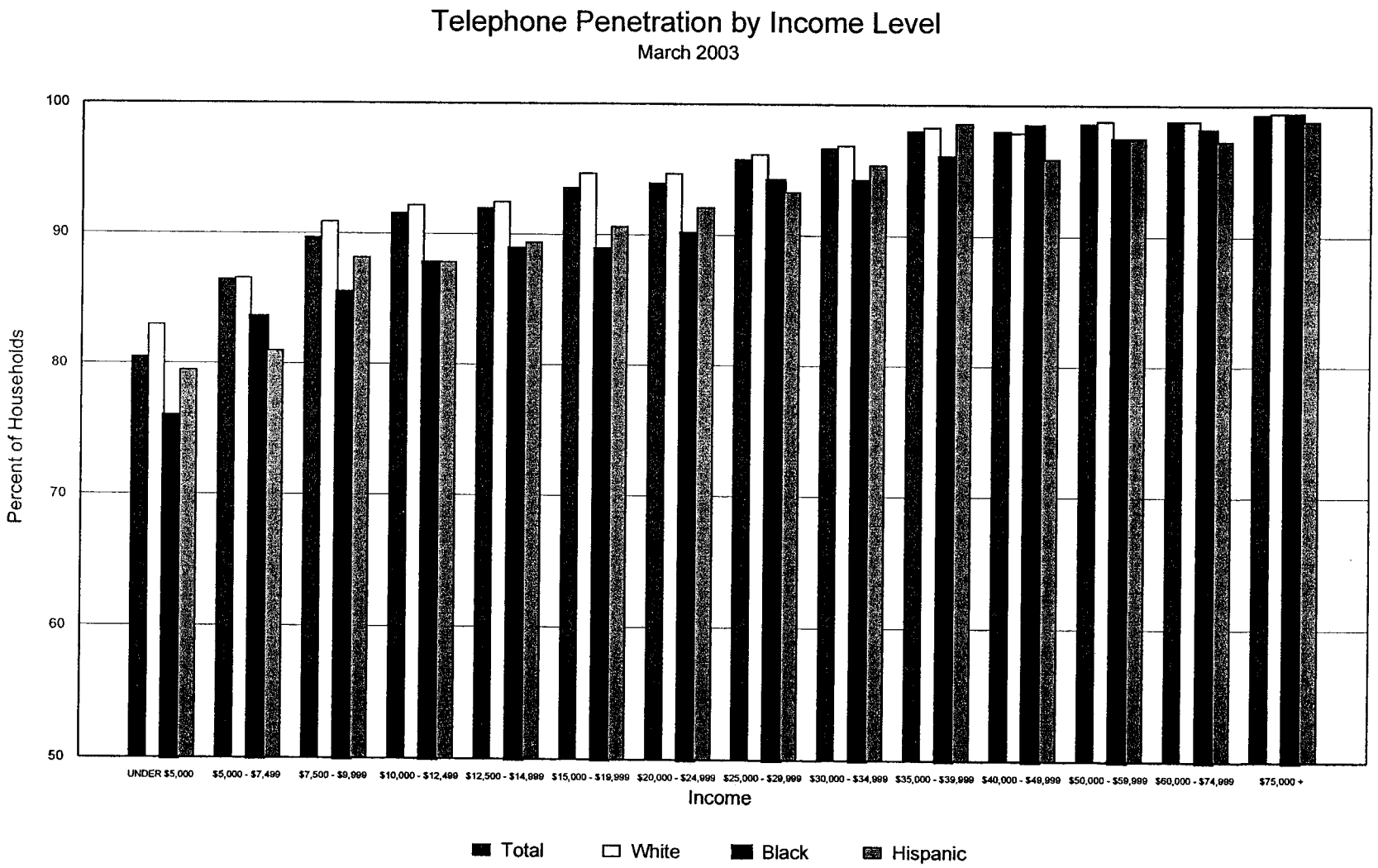

Telephone Penetration by Income Level
March 2003
Percent of Households
100
90
80
70
60
50
UNDER $5,000
$5,000 - $7,499
$7,500 - $9,999
$10,000 - $12,499
$12,500 - $14,999
$15,000 - $19,999
$20,000 - $24,999
$25,000 - $29,999
$30,000 - $34,999
$35,000 - $39,999
$40,000 - $49,999
$50,000 - $59,999
$60,000 - $74,999
$75,000 +
Income
Total
White
Black
Hispanic

Chart 5

Telephone Penetration by Household Size

March 2003

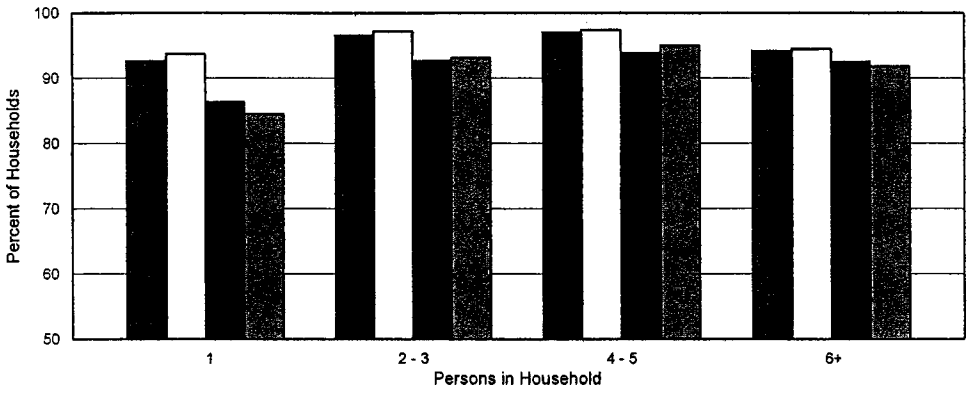


Chart 6

Telephone Penetration by Householder's Age

March 2003

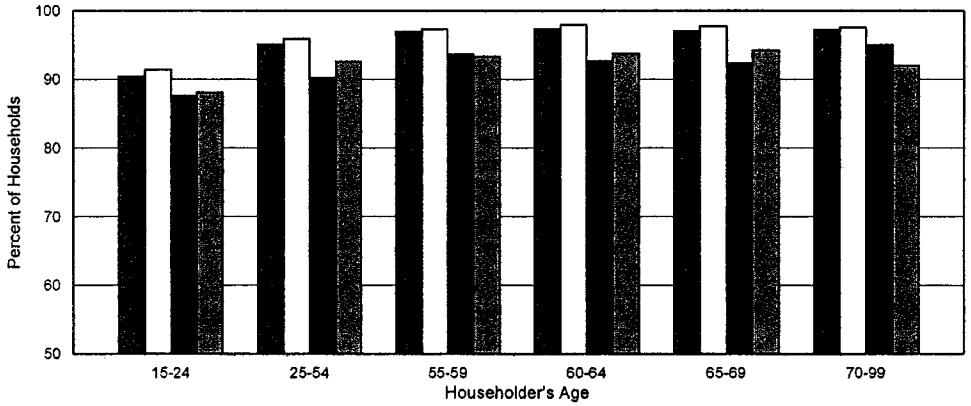
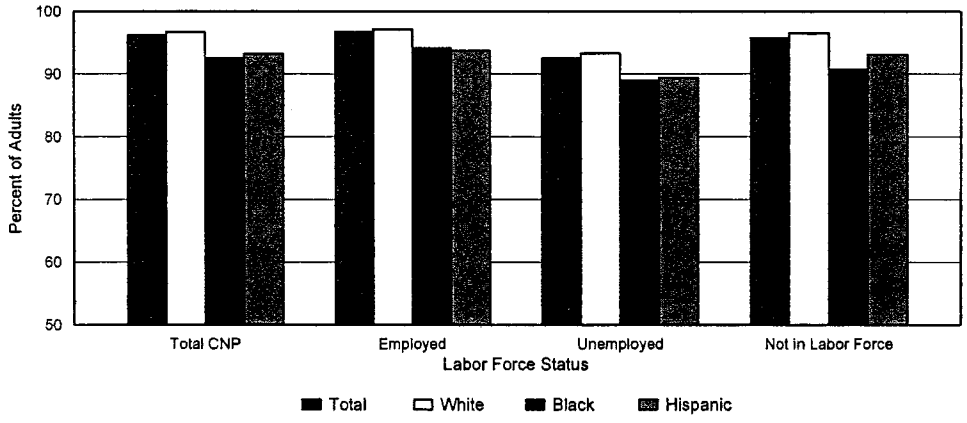


Chart 7

Telephone Penetration by Labor Force Status

March 2003



Telephone Penetration

Civilian Noninstitutionalized Adults

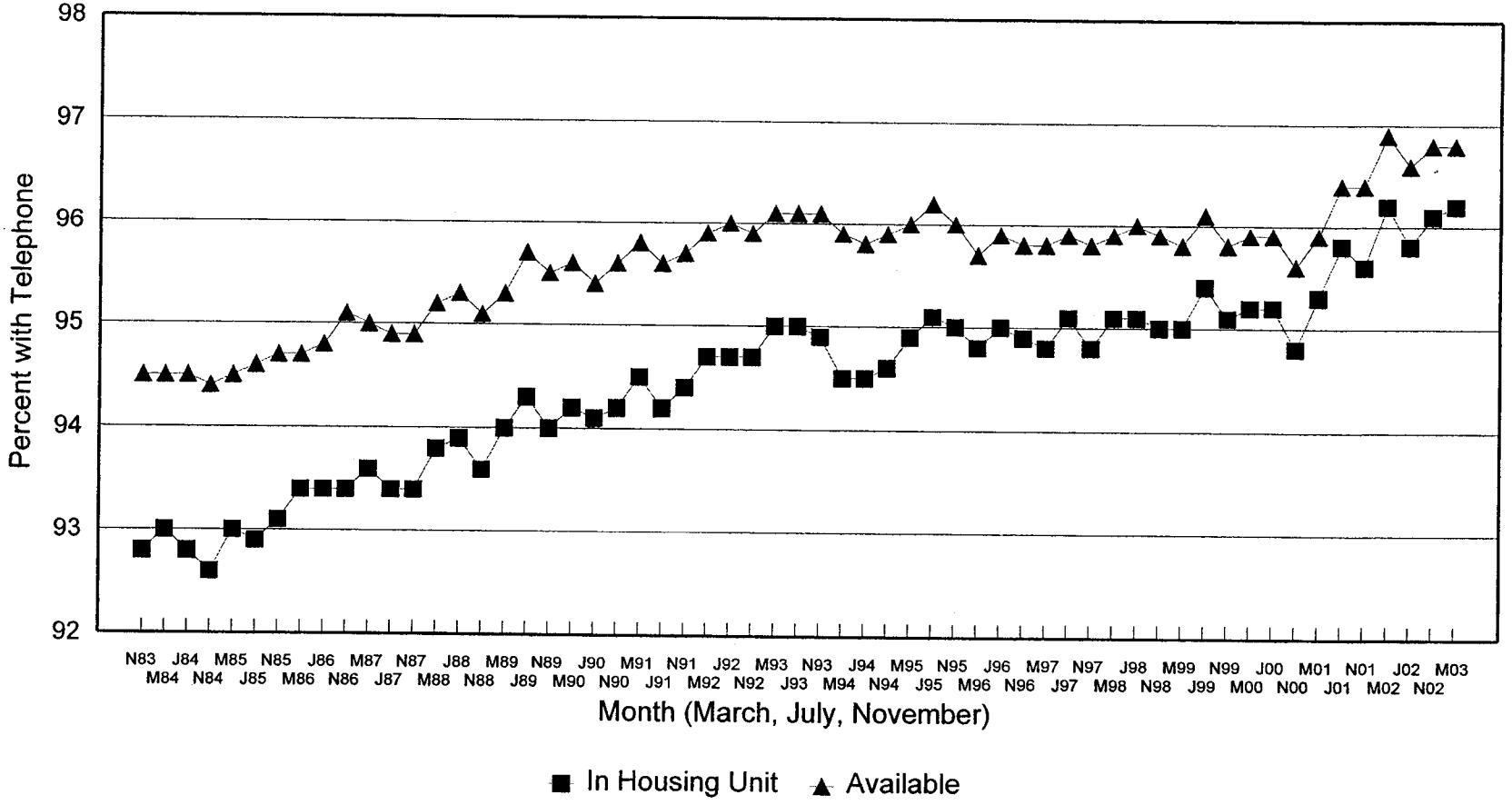


Table 3
Percentage of Households with a Telephone by State

	1983		1984		1985		1986	
	NOVEMBER		ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	91.4	93.7	91.6	93.7	91.8	93.9	92.3	94.1
ALABAMA	87.9	90.2	88.4	90.5	89.1	91.0	88.7	90.4
ALASKA	83.8	88.8	86.5	89.0	87.1	89.5	86.4	88.9
ARIZONA	88.8	90.7	86.9	89.4	87.3	89.6	89.4	90.9
ARKANSAS	88.2	91.4	86.6	90.6	85.9	89.9	86.4	90.4
CALIFORNIA	91.7	93.5	92.5	93.8	92.9	94.1	93.0	94.0
COLORADO	94.4	96.5	93.2	95.4	94.3	96.2	94.1	96.0
CONNECTICUT	95.5	98.4	95.5	97.0	96.2	97.6	97.0	97.9
DELAWARE	95.0	96.6	94.3	95.7	94.8	96.2	94.7	96.3
DISTRICT OF COLUMBIA	94.7	95.6	94.9	96.3	93.6	95.2	92.2	94.0
FLORIDA	85.5	89.9	88.7	91.3	89.6	91.7	90.0	92.5
GEORGIA	88.9	92.1	86.2	89.1	87.6	89.7	88.4	91.0
HAWAII	94.6	96.4	93.5	94.9	93.0	95.0	92.2	94.4
IDAHO	89.5	92.2	90.7	91.7	91.8	93.1	91.5	93.1
ILLINOIS	95.0	95.9	94.2	95.8	93.7	95.3	93.6	95.2
INDIANA	90.3	93.5	91.6	93.6	92.3	94.7	92.2	94.3
IOWA	95.4	97.2	96.2	97.4	95.1	96.4	95.7	96.5
KANSAS	94.9	96.7	94.3	95.8	94.4	96.4	94.6	96.1
KENTUCKY	86.9	90.9	88.1	91.0	87.4	91.1	86.2	90.6
LOUISIANA	88.9	93.3	89.7	92.7	90.3	93.6	88.7	91.9
MAINE	90.7	93.1	93.4	95.3	94.0	95.6	93.4	95.4
MARYLAND	96.3	96.7	95.7	96.5	95.5	96.7	95.7	96.7
MASSACHUSETTS	94.3	95.9	95.9	96.9	95.2	96.3	96.4	97.1
MICHIGAN	93.8	94.9	92.8	94.5	92.9	94.2	93.4	94.5
MINNESOTA	96.4	97.5	95.8	97.1	96.4	97.4	96.2	97.2
MISSISSIPPI	82.4	89.1	82.4	87.5	80.9	87.6	80.1	87.3
MISSOURI	92.1	94.1	91.5	93.7	92.5	94.8	93.4	94.9
MONTANA	92.8	94.5	91.0	94.0	91.4	93.9	90.9	93.7
NEBRASKA	94.0	95.3	95.7	96.8	95.3	96.6	95.6	96.8
NEVADA	89.4	91.9	90.4	92.8	91.8	93.8	92.4	93.7
NEW HAMPSHIRE	95.0	96.9	94.3	95.8	93.2	94.6	94.0	95.0
NEW JERSEY	94.1	95.1	94.8	96.1	94.9	96.2	94.9	96.1
NEW MEXICO	85.3	90.9	82.0	87.0	84.1	88.2	85.1	89.1
NEW YORK	90.8	92.2	91.8	93.6	92.1	93.6	93.2	94.3
NORTH CAROLINA	89.3	92.9	88.3	91.9	89.4	92.4	90.2	92.5
NORTH DAKOTA	95.1	97.3	94.6	96.8	95.3	96.7	96.1	97.0
OHIO	92.2	93.9	92.4	94.4	92.2	94.5	93.1	94.4
OKLAHOMA	91.5	93.7	90.3	92.5	88.8	91.7	90.4	93.0
OREGON	91.2	93.5	90.6	92.3	90.3	92.1	92.7	94.3
PENNSYLVANIA	95.1	97.1	94.9	96.5	95.3	96.6	96.3	97.4
RHODE ISLAND	93.3	94.6	93.6	94.6	94.0	95.1	95.9	96.8
SOUTH CAROLINA	81.8	84.9	83.7	87.7	86.8	90.5	86.3	90.6
SOUTH DAKOTA	92.7	95.0	93.2	94.9	92.6	94.5	92.6	94.2
TENNESSEE	87.6	92.6	88.5	92.0	89.3	92.6	89.6	93.6
TEXAS	89.0	92.6	88.4	91.6	88.1	91.6	88.9	91.9
UTAH	90.3	92.2	92.5	94.2	93.9	95.1	93.0	93.9
VERMONT	92.7	94.3	92.3	94.0	92.9	94.1	93.8	95.6
VIRGINIA	93.1	94.7	93.1	95.1	91.7	93.8	92.1	94.1
WASHINGTON	92.5	93.7	93.0	94.4	94.7	96.2	94.6	96.3
WEST VIRGINIA	88.1	91.1	87.7	91.8	87.6	91.7	88.2	91.9
WISCONSIN	94.8	96.1	95.2	96.6	94.1	95.4	95.1	95.9
WYOMING	89.7	93.3	89.9	92.8	93.4	94.9	92.1	95.1

Table 3
Percentage of Households with a Telephone by State

	1987		1988		1989		1990	
	ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	92.4	94.2	92.7	94.5	93.1	94.9	93.3	95.0
ALABAMA	87.5	89.6	87.3	89.6	89.0	91.3	89.5	91.1
ALASKA	87.8	90.2	87.6	89.9	86.8	89.9	89.3	92.6
ARIZONA	88.6	90.7	90.6	92.3	91.6	93.2	93.0	95.1
ARKANSAS	86.3	90.7	86.1	90.2	87.5	91.0	88.7	91.9
CALIFORNIA	93.8	95.0	94.4	95.5	94.9	96.0	94.6	95.5
COLORADO	92.9	95.5	93.8	95.4	94.6	96.0	94.7	96.3
CONNECTICUT	97.0	98.0	96.3	98.9	98.1	98.5	97.1	97.7
DELAWARE	96.5	97.3	97.0	97.9	96.6	97.5	96.0	97.1
DISTRICT OF COLUMBIA	92.4	94.2	94.6	95.9	92.7	94.8	91.4	93.2
FLORIDA	91.7	93.8	92.7	94.5	92.9	94.5	93.0	94.9
GEORGIA	88.7	91.3	90.1	92.4	90.2	92.9	90.9	93.4
HAWAII	94.2	96.6	94.5	96.3	95.1	96.9	95.3	96.8
IDAHO	91.1	92.5	92.2	93.3	92.5	93.6	92.8	94.1
ILLINOIS	93.7	95.2	94.2	95.6	93.9	95.4	94.3	95.7
INDIANA	91.2	93.2	92.3	94.9	93.2	95.9	92.8	95.9
IOWA	95.1	96.3	95.4	96.9	96.3	97.5	96.1	96.9
KANSAS	95.2	96.6	94.4	95.7	94.4	95.8	95.4	96.5
KENTUCKY	86.5	90.6	87.5	90.9	88.9	92.7	89.1	93.3
LOUISIANA	87.5	90.8	87.3	91.1	88.6	91.3	89.4	92.0
MAINE	93.5	95.2	94.2	95.9	95.3	96.4	95.7	97.6
MARYLAND	95.4	96.6	95.9	97.2	95.0	96.6	95.4	96.7
MASSACHUSETTS	96.4	97.0	96.9	97.3	97.1	97.8	96.6	97.4
MICHIGAN	93.7	94.8	93.9	95.0	93.7	94.9	94.1	95.5
MINNESOTA	96.0	97.4	97.2	98.4	96.8	97.8	96.9	98.1
MISSISSIPPI	81.5	86.3	83.3	88.6	85.5	90.3	87.0	90.9
MISSOURI	93.0	95.3	93.5	95.6	91.0	93.4	92.0	95.3
MONTANA	90.9	93.9	91.7	94.2	91.7	94.3	92.0	94.2
NEBRASKA	94.6	96.1	95.4	96.1	95.2	96.3	96.2	97.1
NEVADA	92.4	93.7	92.4	93.4	92.7	93.3	92.6	93.6
NEW HAMPSHIRE	94.1	96.2	95.2	96.1	95.4	97.1	95.0	96.5
NEW JERSEY	95.0	96.3	94.4	95.9	94.8	96.1	94.7	95.9
NEW MEXICO	86.0	89.3	85.7	89.1	85.8	89.6	85.8	89.5
NEW YORK	92.7	94.2	92.4	94.0	92.3	94.0	91.1	92.8
NORTH CAROLINA	89.2	91.7	90.4	92.8	91.9	94.1	91.9	94.2
NORTH DAKOTA	96.8	97.4	96.8	97.5	97.0	98.0	97.0	97.9
OHIO	93.4	94.7	94.4	95.2	94.6	95.5	95.2	96.3
OKLAHOMA	88.7	91.8	88.9	91.6	88.2	91.2	89.5	92.7
OREGON	93.3	94.8	92.0	93.5	92.3	93.9	94.5	95.9
PENNSYLVANIA	96.4	97.3	96.2	97.1	97.0	97.5	96.9	97.6
RHODE ISLAND	95.2	96.3	95.4	96.5	95.4	96.3	95.6	96.5
SOUTH CAROLINA	87.7	90.6	88.5	91.4	87.8	90.8	90.2	93.2
SOUTH DAKOTA	92.8	95.0	92.9	95.4	93.3	95.0	93.4	95.3
TENNESSEE	89.2	92.6	90.3	93.5	91.9	95.1	91.6	94.1
TEXAS	89.5	92.2	88.5	91.3	88.8	91.6	89.4	92.0
UTAH	92.3	94.6	92.5	94.5	95.9	96.5	95.6	96.3
VERMONT	95.3	96.9	95.6	96.8	93.9	95.7	94.9	96.9
VIRGINIA	92.5	94.6	92.9	95.5	93.2	95.7	93.0	94.9
WASHINGTON	94.3	96.4	94.3	95.7	96.4	97.3	97.1	97.7
WEST VIRGINIA	87.8	91.5	87.3	91.4	86.8	90.3	87.6	91.7
WISCONSIN	96.4	97.1	97.0	98.0	97.3	98.4	96.9	97.7
WYOMING	92.3	94.1	93.0	94.4	93.6	95.5	94.1	95.9

Table 3
Percentage of Households with a Telephone by State

	1991		1992		1993		1994	
	ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	93.4	95.1	93.8	95.3	94.2	95.6	93.8	95.4
ALABAMA	91.4	93.3	90.8	93.2	91.9	94.3	91.3	94.3
ALASKA	90.8	93.5	91.7	94.4	89.9	93.8	91.8	94.6
ARIZONA	93.4	94.9	93.3	94.7	93.3	94.4	93.9	95.3
ARKANSAS	87.6	91.4	87.3	91.0	87.8	91.0	90.2	93.5
CALIFORNIA	95.0	95.9	95.6	96.5	95.8	96.7	94.8	95.7
COLORADO	95.4	97.0	95.5	96.3	96.1	96.5	96.7	97.7
CONNECTICUT	96.2	97.3	96.6	97.3	96.7	97.5	96.5	97.5
DELAWARE	96.4	97.5	96.5	97.8	96.5	96.8	95.5	97.1
DISTRICT OF COLUMBIA	90.9	92.6	88.7	90.5	90.2	91.7	90.0	91.2
FLORIDA	93.3	95.0	93.5	95.1	93.8	95.1	93.5	94.9
GEORGIA	89.9	91.7	90.2	91.9	93.2	94.2	91.1	93.2
HAWAII	95.1	96.4	95.3	96.8	94.4	96.3	94.3	96.1
IDAHO	92.0	93.6	93.0	94.7	94.4	95.7	94.7	96.2
ILLINOIS	93.8	95.6	93.8	95.5	93.6	95.3	93.6	95.2
INDIANA	92.2	94.6	91.9	93.2	93.7	95.1	93.6	94.8
IOWA	95.6	97.4	95.4	97.4	96.4	97.4	96.8	98.0
KANSAS	94.5	95.7	95.2	96.6	95.6	96.3	94.7	96.2
KENTUCKY	88.1	92.9	89.6	92.6	89.8	93.1	91.2	93.8
LOUISIANA	91.1	93.9	91.7	93.9	90.4	92.2	91.4	93.9
MAINE	94.4	96.6	93.2	95.3	96.0	98.1	96.0	97.8
MARYLAND	96.3	97.2	96.0	97.4	96.7	97.9	95.6	96.6
MASSACHUSETTS	96.4	97.4	96.8	97.5	96.9	97.9	96.5	97.1
MICHIGAN	94.1	95.5	94.4	95.5	95.6	96.5	95.0	96.6
MINNESOTA	97.1	97.9	96.7	98.1	96.1	97.3	95.6	97.2
MISSISSIPPI	86.0	90.9	86.3	90.4	87.2	90.6	88.6	92.5
MISSOURI	93.6	95.2	94.0	96.0	93.1	95.3	93.8	96.0
MONTANA	92.5	94.4	93.2	95.7	94.6	96.3	93.9	95.5
NEBRASKA	95.9	96.4	96.4	97.1	96.6	97.2	96.7	98.0
NEVADA	93.3	94.5	93.7	94.6	95.4	95.9	93.0	93.5
NEW HAMPSHIRE	96.2	97.5	95.4	96.4	96.0	96.9	96.4	97.3
NEW JERSEY	93.6	95.2	94.4	95.3	94.3	95.1	92.9	94.1
NEW MEXICO	87.1	89.9	88.4	90.9	90.2	93.3	88.3	91.2
NEW YORK	91.9	93.4	93.4	94.5	93.5	94.8	93.1	94.4
NORTH CAROLINA	91.8	94.2	92.5	94.5	92.7	94.6	92.6	95.2
NORTH DAKOTA	96.3	97.6	95.8	97.1	97.1	98.0	96.5	97.7
OHIO	94.5	95.8	94.6	95.6	94.9	96.0	94.8	96.0
OKLAHOMA	89.3	91.9	90.9	93.1	92.1	94.0	91.8	93.6
OREGON	94.7	95.4	93.9	94.7	94.8	95.7	96.1	97.0
PENNSYLVANIA	96.8	97.8	96.9	97.7	97.3	98.0	97.0	98.0
RHODE ISLAND	94.7	96.3	94.8	96.0	95.5	96.7	95.9	97.3
SOUTH CAROLINA	90.0	93.3	89.2	92.9	89.8	91.9	89.4	92.3
SOUTH DAKOTA	93.7	95.7	94.1	95.6	93.7	95.4	94.7	96.1
TENNESSEE	92.2	94.6	93.1	95.2	92.0	93.9	93.1	95.6
TEXAS	91.1	93.6	91.5	94.2	91.6	94.3	90.8	93.2
UTAH	96.2	97.0	95.9	96.5	96.0	96.8	95.7	97.1
VERMONT	94.4	96.5	94.2	95.6	94.6	95.9	94.6	96.3
VIRGINIA	92.6	94.7	94.8	96.4	94.3	95.9	94.8	96.7
WASHINGTON	96.8	97.3	96.0	96.9	96.8	98.0	96.0	97.2
WEST VIRGINIA	89.0	93.0	89.3	92.6	90.6	93.6	90.8	94.2
WISCONSIN	96.5	97.5	97.0	97.7	96.9	97.6	96.1	97.6
WYOMING	94.6	96.3	92.7	94.9	93.9	95.7	93.5	95.5

Table 3
Percentage of Households with a Telephone by State

	1995		1996		1997		1998	
	ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	93.9	95.2	93.9	95.0	93.9	95.0	94.1	95.2
ALABAMA	92.2	94.0	92.2	93.9	92.3	93.6	93.3	94.4
ALASKA	93.6	95.6	94.4	95.4	94.5	96.4	94.0	96.0
ARIZONA	93.8	95.1	93.1	94.1	91.6	93.2	91.9	93.0
ARKANSAS	89.4	92.5	86.9	89.7	89.8	91.8	88.0	89.8
CALIFORNIA	94.5	95.3	95.0	95.6	94.3	94.9	95.2	95.9
COLORADO	96.6	97.2	95.5	96.4	95.9	97.3	95.0	96.0
CONNECTICUT	96.9	98.0	97.5	98.2	94.2	94.8	95.5	96.2
DELAWARE	96.2	96.8	96.1	97.1	95.7	96.7	96.7	97.0
DISTRICT OF COLUMBIA	90.9	92.3	93.0	94.2	90.8	92.3	91.0	92.3
FLORIDA	93.9	94.8	93.1	94.2	92.8	94.0	92.6	93.5
GEORGIA	90.0	91.8	89.7	91.1	92.0	93.0	91.4	92.5
HAWAII	94.7	96.0	94.8	95.9	94.5	95.6	95.4	96.3
IDAHO	95.1	96.1	92.9	94.3	94.0	94.7	93.3	94.2
ILLINOIS	93.6	95.0	93.0	94.2	92.2	93.7	92.8	93.9
INDIANA	94.4	95.9	93.7	95.1	93.8	95.1	94.4	95.7
IOWA	96.4	97.6	96.6	96.9	96.7	97.5	96.7	97.5
KANSAS	93.9	95.0	93.9	95.2	94.0	95.2	94.3	95.3
KENTUCKY	92.1	94.2	92.3	93.3	93.2	94.3	93.3	95.1
LOUISIANA	92.6	95.3	91.1	93.3	91.0	93.5	92.3	93.3
MAINE	95.7	96.9	96.5	97.8	96.1	97.3	96.9	97.9
MARYLAND	96.4	96.8	96.7	97.2	95.7	96.3	96.5	97.0
MASSACHUSETTS	95.9	96.7	95.7	96.7	95.4	96.3	94.5	95.4
MICHIGAN	95.2	96.0	95.0	95.6	94.3	95.2	95.0	96.0
MINNESOTA	97.3	98.1	97.1	98.0	96.9	98.0	97.8	98.3
MISSISSIPPI	86.5	91.1	87.5	91.6	89.2	93.2	89.5	92.0
MISSOURI	94.4	95.7	95.3	96.7	95.0	96.2	94.6	95.9
MONTANA	94.2	95.3	94.3	95.5	93.7	94.8	94.1	95.0
NEBRASKA	97.1	97.8	96.0	96.9	97.1	97.8	96.2	97.0
NEVADA	92.6	93.6	93.5	94.1	94.1	94.4	92.3	93.3
NEW HAMPSHIRE	96.2	97.2	96.1	96.9	96.5	97.4	95.5	96.6
NEW JERSEY	92.3	93.2	93.6	94.8	94.9	96.0	94.5	95.3
NEW MEXICO	86.4	88.8	86.2	88.6	88.1	90.8	88.2	91.3
NEW YORK	92.9	93.9	93.4	94.3	94.2	95.1	94.8	95.7
NORTH CAROLINA	93.4	95.1	93.5	95.1	93.1	94.2	93.1	94.0
NORTH DAKOTA	97.2	97.9	96.3	96.7	95.8	97.0	96.8	97.5
OHIO	94.0	95.0	94.5	95.6	94.6	95.3	95.6	96.3
OKLAHOMA	91.5	92.9	91.3	92.6	91.4	93.1	90.6	91.7
OREGON	96.4	96.9	96.0	96.8	95.6	96.3	96.0	97.2
PENNSYLVANIA	96.8	97.5	96.9	97.5	97.1	97.6	96.8	97.4
RHODE ISLAND	96.0	97.4	95.7	96.3	94.5	95.6	95.6	96.5
SOUTH CAROLINA	90.5	92.3	91.3	93.6	92.5	93.8	92.9	94.1
SOUTH DAKOTA	94.3	95.9	93.3	94.5	93.9	95.0	90.6	91.7
TENNESSEE	93.0	95.5	94.0	96.2	94.5	96.4	94.6	96.3
TEXAS	91.3	93.3	91.0	92.6	91.3	93.0	92.2	93.7
UTAH	97.6	97.9	96.7	97.0	96.9	97.7	97.1	97.7
VERMONT	96.5	98.0	95.9	97.7	95.1	96.7	95.2	96.1
VIRGINIA	95.9	97.3	94.9	96.1	94.5	95.7	93.9	94.6
WASHINGTON	95.7	96.6	94.5	95.5	95.9	96.9	95.2	95.9
WEST VIRGINIA	92.7	94.9	92.9	95.0	93.2	94.9	93.8	95.5
WISCONSIN	97.3	97.7	97.0	97.7	96.3	97.2	95.9	96.8
WYOMING	94.1	95.5	95.0	95.7	93.4	95.0	93.7	94.6

Table 3
Percentage of Households with a Telephone by State

	1999		2000					
	ANNUAL AVERAGE		MARCH		JULY		NOVEMBER	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	94.2	95.0	94.6	95.3	94.4	95.2	94.1	95.0
ALABAMA	91.5	93.0	91.2	92.5	92.3	94.2	92.1	93.1
ALASKA	94.6	96.5	95.4	97.4	91.9	96.4	95.6	96.9
ARIZONA	93.2	93.8	94.8	95.6	93.8	94.5	93.2	94.3
ARKANSAS	88.9	90.5	90.1	91.2	89.1	90.6	86.6	87.9
CALIFORNIA	95.7	96.2	95.6	96.1	95.8	96.4	96.1	96.6
COLORADO	96.7	97.2	95.7	96.3	96.4	97.0	96.7	96.8
CONNECTICUT	96.5	96.8	95.8	96.2	97.6	97.6	95.9	96.5
DELAWARE	95.7	96.9	97.2	97.8	96.2	96.8	95.4	96.6
DISTRICT OF COLUMBIA	92.4	93.5	90.8	91.8	95.3	95.8	93.6	94.8
FLORIDA	92.6	93.6	92.2	92.9	92.1	92.8	92.0	92.9
GEORGIA	92.1	93.2	91.8	92.9	90.6	91.7	90.9	92.8
HAWAII	96.3	97.1	93.6	94.5	93.5	94.0	97.1	97.3
IDAHO	93.8	94.6	93.6	94.2	93.3	94.9	94.9	95.3
ILLINOIS	91.8	93.0	93.0	93.4	92.1	92.6	89.5	91.0
INDIANA	93.8	95.2	95.7	96.3	93.3	94.0	94.4	95.5
IOWA	95.8	96.5	96.7	97.2	95.3	96.4	96.6	97.6
KANSAS	93.8	94.8	94.6	94.9	96.6	96.9	93.2	95.3
KENTUCKY	92.8	94.1	93.9	94.7	93.7	94.9	92.4	93.2
LOUISIANA	91.5	93.1	90.8	92.0	92.7	94.3	94.3	95.1
MAINE	97.2	97.9	98.5	99.2	97.9	98.1	97.2	97.6
MARYLAND	95.3	95.8	96.3	97.0	94.7	95.6	94.1	95.4
MASSACHUSETTS	95.4	96.0	94.1	95.5	95.7	96.3	94.0	94.7
MICHIGAN	94.2	94.9	95.9	96.1	94.8	95.7	94.2	95.1
MINNESOTA	96.9	97.3	97.8	98.0	96.6	97.4	97.9	98.1
MISSISSIPPI	88.0	91.2	88.8	91.5	87.7	90.1	91.1	94.4
MISSOURI	95.6	96.6	95.7	96.8	95.5	96.8	96.1	97.1
MONTANA	95.3	96.2	95.1	95.7	95.0	95.7	93.7	93.9
NEBRASKA	95.9	96.6	97.8	98.4	97.0	97.9	97.2	97.8
NEVADA	93.1	93.5	95.5	95.9	94.0	94.8	92.4	92.7
NEW HAMPSHIRE	97.0	97.6	98.1	98.5	97.7	98.4	97.2	98.0
NEW JERSEY	93.9	94.3	94.6	95.1	94.1	94.5	95.1	95.4
NEW MEXICO	89.8	91.4	92.2	93.0	92.0	93.7	89.4	91.3
NEW YORK	95.3	96.1	96.3	96.7	94.7	95.6	94.2	94.7
NORTH CAROLINA	93.9	94.8	93.3	94.5	95.1	95.9	93.3	94.6
NORTH DAKOTA	97.3	97.9	94.8	95.7	96.0	96.6	96.6	96.9
OHIO	94.7	95.6	94.7	95.6	95.4	96.2	94.4	95.6
OKLAHOMA	91.2	92.5	90.5	91.7	92.2	93.4	90.8	91.7
OREGON	95.2	96.1	94.0	94.7	94.7	95.6	95.7	96.4
PENNSYLVANIA	97.1	97.4	97.4	97.9	96.6	97.1	95.8	96.4
RHODE ISLAND	94.3	94.7	95.1	95.9	95.6	96.0	94.0	95.9
SOUTH CAROLINA	92.9	94.0	94.2	94.9	92.1	93.4	93.2	94.3
SOUTH DAKOTA	92.7	93.4	95.5	96.0	93.7	94.6	93.8	94.5
TENNESSEE	94.5	96.0	96.3	97.3	94.8	96.2	95.4	96.3
TEXAS	92.4	93.5	94.0	95.0	93.3	94.1	93.3	94.1
UTAH	95.6	96.5	96.0	96.7	95.4	96.0	96.4	96.9
VERMONT	95.3	96.7	95.6	96.4	94.2	94.8	96.9	97.5
VIRGINIA	93.2	94.1	95.0	95.8	96.0	96.3	95.1	95.9
WASHINGTON	95.9	96.4	93.4	94.7	95.9	96.7	95.4	96.6
WEST VIRGINIA	92.7	94.6	93.3	94.9	95.1	96.3	93.6	94.7
WISCONSIN	95.7	96.6	94.1	95.1	95.6	96.9	94.7	96.1
WYOMING	95.0	95.6	94.9	96.0	94.8	96.1	94.5	95.9

Table 3
Percentage of Households with a Telephone by State

	2000		2001					
	ANNUAL AVERAGE		MARCH		JULY		NOVEMBER	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	94.4	95.2	94.6	95.4	95.1	95.9	94.9	95.8
ALABAMA	91.9	93.3	91.9	93.5	93.0	93.9	93.4	94.7
ALASKA	94.3	96.9	96.4	97.3	94.7	95.8	96.9	98.1
ARIZONA	93.9	94.8	94.5	95.1	93.5	94.1	95.4	96.1
ARKANSAS	88.6	89.9	91.6	92.5	91.4	93.1	90.9	93.2
CALIFORNIA	95.8	96.4	96.1	96.4	97.0	97.5	96.6	97.1
COLORADO	96.3	96.7	96.2	96.9	97.4	97.9	96.6	97.2
CONNECTICUT	96.4	96.8	95.9	96.5	96.8	97.3	95.5	96.7
DELAWARE	96.3	97.1	97.5	98.4	94.4	95.0	96.8	97.2
DISTRICT OF COLUMBIA	93.2	94.1	95.5	96.1	93.8	95.0	94.3	95.5
FLORIDA	92.1	92.9	92.0	92.8	93.2	94.1	94.5	95.0
GEORGIA	91.1	92.5	92.2	93.3	93.2	94.2	91.9	92.8
HAWAII	94.7	95.3	94.3	95.5	96.9	97.5	96.0	96.7
IDAHO	93.9	94.8	93.5	94.5	94.1	95.2	96.0	97.2
ILLINOIS	91.5	92.3	92.0	93.0	93.7	94.4	91.7	92.7
INDIANA	94.5	95.3	93.7	94.9	95.0	95.7	93.1	94.5
IOWA	96.2	97.1	97.1	97.7	97.2	97.6	97.0	98.0
KANSAS	94.8	95.7	92.6	94.9	95.4	96.6	94.6	96.3
KENTUCKY	93.3	94.3	93.4	94.6	93.7	94.9	93.5	94.1
LOUISIANA	92.6	93.8	93.4	94.7	94.5	95.2	92.8	94.0
MAINE	97.9	98.3	97.9	98.8	97.7	98.3	97.9	98.5
MARYLAND	95.0	96.0	96.2	96.5	95.5	95.9	96.4	96.6
MASSACHUSETTS	94.6	95.5	96.1	96.2	95.7	96.4	95.1	95.7
MICHIGAN	95.0	95.6	94.9	95.9	94.7	95.5	94.4	95.3
MINNESOTA	97.4	97.8	97.0	97.3	97.7	98.2	97.7	98.0
MISSISSIPPI	89.2	92.0	87.8	91.0	88.1	91.4	93.7	95.5
MISSOURI	95.8	96.9	97.1	97.6	96.6	97.0	94.6	95.8
MONTANA	94.6	95.1	95.0	96.1	94.8	95.4	95.2	95.7
NEBRASKA	97.3	98.0	97.3	97.6	96.5	97.6	96.0	96.9
NEVADA	94.0	94.5	95.4	95.9	95.2	95.9	94.8	95.7
NEW HAMPSHIRE	97.7	98.3	98.2	98.7	97.8	98.1	98.8	99.1
NEW JERSEY	94.6	95.0	95.2	95.8	95.9	96.7	96.2	96.7
NEW MEXICO	91.2	92.7	91.3	93.5	93.6	94.3	91.6	92.9
NEW YORK	95.1	95.7	95.1	95.9	94.9	95.5	95.2	96.2
NORTH CAROLINA	93.9	95.0	93.3	94.4	93.9	94.5	93.7	95.1
NORTH DAKOTA	95.8	96.4	95.0	96.0	94.6	95.4	93.5	94.4
OHIO	94.8	95.8	95.4	95.8	96.7	97.3	95.8	97.0
OKLAHOMA	91.2	92.3	92.9	93.9	93.0	93.8	93.7	95.1
OREGON	94.8	95.6	94.6	95.6	96.2	96.8	95.9	97.0
PENNSYLVANIA	96.6	97.1	97.1	97.5	97.0	97.3	97.0	97.7
RHODE ISLAND	94.9	95.9	95.8	96.4	95.7	96.2	97.4	97.5
SOUTH CAROLINA	93.2	94.2	93.1	94.3	94.9	96.3	95.5	96.3
SOUTH DAKOTA	94.3	95.0	95.7	96.3	94.9	95.5	94.6	95.7
TENNESSEE	95.5	96.6	91.8	93.4	93.2	94.9	94.5	95.9
TEXAS	93.5	94.4	93.6	94.7	94.3	95.1	93.6	94.9
UTAH	95.9	96.5	96.2	96.2	96.5	96.9	97.0	97.6
VERMONT	95.6	96.2	97.1	98.0	97.2	97.6	97.2	97.9
VIRGINIA	95.4	96.0	94.3	94.7	95.8	96.3	93.9	95.0
WASHINGTON	94.9	96.0	95.9	96.8	96.9	97.7	95.2	96.2
WEST VIRGINIA	94.0	95.3	92.8	95.6	94.5	95.6	93.1	94.7
WISCONSIN	94.8	96.0	96.2	97.8	95.6	95.8	95.5	96.7
WYOMING	94.7	96.0	94.2	95.1	93.7	94.5	93.4	94.9

Table 3
Percentage of Households with a Telephone by State

	2001		2002					
	ANNUAL AVERAGE		MARCH		JULY		NOVEMBER	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	94.9	95.7	95.5	96.3	95.1	96.0	95.3	96.2
ALABAMA	92.8	94.0	92.0	92.6	92.6	93.8	92.0	93.1
ALASKA	96.0	97.1	96.4	98.5	96.6	96.9	96.3	98.2
ARIZONA	94.5	95.1	95.9	96.9	93.1	94.7	95.5	96.4
ARKANSAS	91.3	92.9	93.4	94.4	90.4	92.5	92.5	93.4
CALIFORNIA	96.6	97.0	97.2	97.6	97.1	97.5	96.8	97.2
COLORADO	96.7	97.3	96.3	97.1	97.5	98.0	97.8	98.0
CONNECTICUT	96.1	96.8	97.6	98.0	97.5	98.0	97.0	97.8
DELAWARE	96.2	96.9	97.4	97.5	96.1	97.0	96.8	97.4
DISTRICT OF COLUMBIA	94.5	95.5	94.0	94.8	93.1	95.1	95.0	96.8
FLORIDA	93.2	94.0	94.6	95.6	93.6	94.7	94.8	95.2
GEORGIA	92.4	93.4	95.1	95.3	94.6	95.6	92.4	93.6
HAWAII	95.7	96.6	97.0	97.7	96.4	97.3	96.9	98.1
IDAHO	94.5	95.6	95.3	97.1	94.0	94.9	95.6	96.4
ILLINOIS	92.5	93.4	94.1	94.7	91.2	92.6	93.0	93.9
INDIANA	93.9	95.0	94.6	94.8	92.5	94.2	93.2	94.5
IOWA	97.1	97.8	97.1	98.3	96.5	97.2	97.1	98.0
KANSAS	94.2	95.9	95.7	96.6	95.6	96.8	95.1	96.5
KENTUCKY	93.5	94.5	95.7	96.7	94.6	95.6	94.7	95.8
LOUISIANA	93.6	94.6	91.5	93.1	92.7	93.8	93.0	93.8
MAINE	97.8	98.5	98.0	98.9	97.4	98.2	98.3	98.9
MARYLAND	96.0	96.3	96.6	96.9	96.1	96.6	96.6	97.4
MASSACHUSETTS	95.6	96.1	96.5	97.0	97.4	98.1	96.7	97.3
MICHIGAN	94.7	95.6	94.6	95.1	95.1	95.8	93.2	93.9
MINNESOTA	97.5	97.8	97.8	98.5	98.0	98.4	97.4	98.1
MISSISSIPPI	89.9	92.6	90.7	93.0	91.8	93.8	91.7	93.2
MISSOURI	96.1	96.8	95.9	96.4	95.8	96.7	96.8	97.8
MONTANA	95.0	95.7	96.2	97.2	94.9	95.8	93.2	95.0
NEBRASKA	96.6	97.4	96.2	97.1	95.3	96.5	95.8	96.4
NEVADA	95.1	95.8	96.4	97.3	94.9	95.3	95.2	95.8
NEW HAMPSHIRE	98.3	98.6	97.6	98.0	96.9	97.3	97.2	97.7
NEW JERSEY	95.8	96.4	95.6	96.5	94.9	96.0	97.3	98.1
NEW MEXICO	92.2	93.6	92.7	94.3	92.3	94.7	90.3	92.8
NEW YORK	95.1	95.9	95.6	96.1	95.7	96.2	96.0	96.7
NORTH CAROLINA	93.6	94.7	94.3	95.0	94.4	95.1	94.3	95.5
NORTH DAKOTA	94.4	95.3	96.4	96.4	93.3	93.6	94.9	95.1
OHIO	96.0	96.7	96.3	97.3	95.2	96.0	96.3	97.5
OKLAHOMA	93.2	94.3	92.8	94.5	93.1	94.8	93.5	94.6
OREGON	95.6	96.5	97.3	98.0	97.4	97.9	96.8	97.1
PENNSYLVANIA	97.0	97.5	97.7	97.8	98.2	98.6	98.1	98.3
RHODE ISLAND	96.3	96.7	96.1	96.3	96.6	96.9	95.5	97.0
SOUTH CAROLINA	94.5	95.6	93.4	94.2	95.9	96.3	93.5	94.9
SOUTH DAKOTA	95.1	95.8	95.1	95.5	95.3	95.8	94.9	95.4
TENNESSEE	93.2	94.7	93.6	94.9	93.1	94.2	94.0	95.7
TEXAS	93.8	94.9	94.7	96.1	93.3	94.9	94.5	95.5
UTAH	96.6	96.9	96.6	98.0	96.7	97.4	96.7	97.3
VERMONT	97.2	97.8	98.0	98.6	97.3	97.8	97.6	98.0
VIRGINIA	94.7	95.3	96.6	97.3	96.6	97.2	95.3	96.0
WASHINGTON	96.0	96.9	96.6	97.7	96.8	97.5	95.9	96.4
WEST VIRGINIA	93.5	95.3	94.5	95.7	94.3	95.5	94.6	95.9
WISCONSIN	95.8	96.8	96.2	97.0	95.3	96.3	96.8	97.7
WYOMING	93.8	94.8	93.4	94.4	95.2	95.8	93.5	94.2

Table 3
Percentage of Households with a Telephone by State

	2002		2003	
	ANNUAL AVERAGE		MARCH	
	Unit	Avail	Unit	Avail
UNITED STATES	95.3	96.2	95.5	96.3
ALABAMA	92.2	93.2	90.5	91.8
ALASKA	96.4	97.9	96.8	98.3
ARIZONA	94.8	96.0	95.6	96.1
ARKANSAS	92.1	93.4	93.0	93.7
CALIFORNIA	97.0	97.4	97.2	97.6
COLORADO	97.2	97.7	97.0	97.5
CONNECTICUT	97.4	97.9	97.6	98.3
DELAWARE	96.8	97.3	96.9	97.4
DISTRICT OF COLUMBIA	94.0	95.6	95.1	96.3
FLORIDA	94.3	95.2	95.0	95.6
GEORGIA	94.0	94.8	95.2	95.6
HAWAII	96.8	97.7	98.0	98.5
IDAHO	95.0	96.1	94.8	96.2
ILLINOIS	92.8	93.7	92.4	93.0
INDIANA	93.4	94.5	93.8	94.6
IOWA	96.9	97.8	97.0	97.5
KANSAS	95.5	96.6	96.3	97.6
KENTUCKY	95.0	96.0	94.0	95.6
LOUISIANA	92.4	93.6	93.4	94.4
MAINE	97.9	98.7	98.0	98.8
MARYLAND	96.4	97.0	98.5	98.8
MASSACHUSETTS	96.9	97.5	97.1	97.9
MICHIGAN	94.3	94.9	95.2	96.0
MINNESOTA	97.7	98.3	96.6	97.5
MISSISSIPPI	91.4	93.3	91.3	93.0
MISSOURI	96.2	97.0	97.0	97.5
MONTANA	94.8	96.0	94.2	95.0
NEBRASKA	95.8	96.7	96.5	96.8
NEVADA	95.5	96.1	94.9	96.0
NEW HAMPSHIRE	97.2	97.7	97.5	97.6
NEW JERSEY	95.9	96.9	96.1	96.9
NEW MEXICO	91.8	93.9	93.0	94.5
NEW YORK	95.8	96.3	95.3	96.0
NORTH CAROLINA	94.3	95.2	94.4	95.2
NORTH DAKOTA	94.9	95.0	94.4	95.7
OHIO	95.9	96.9	96.6	97.4
OKLAHOMA	93.1	94.6	92.7	93.7
OREGON	97.2	97.7	96.7	96.9
PENNSYLVANIA	98.0	98.2	97.1	97.7
RHODE ISLAND	96.1	96.7	97.4	97.8
SOUTH CAROLINA	94.3	95.1	93.6	94.5
SOUTH DAKOTA	95.1	95.6	94.8	95.5
TENNESSEE	93.6	94.9	94.3	95.6
TEXAS	94.2	95.5	94.8	95.9
UTAH	96.7	97.6	97.7	97.7
VERMONT	97.6	98.1	96.4	97.6
VIRGINIA	96.2	96.8	95.9	96.7
WASHINGTON	96.4	97.2	97.0	97.6
WEST VIRGINIA	94.5	95.7	94.9	96.2
WISCONSIN	96.1	97.0	96.3	96.7
WYOMING	94.0	94.8	93.8	95.2

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 1983								
TOTAL	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
UNDER $5,000	71.7	78.4	75.7	81.9	62.7	70.4	58.3	64.6
$5,000 - $7,499	82.7	87.2	84.5	88.5	74.7	82.0	71.1	76.5
$7,500 - $9,999	88.2	90.9	89.6	92.2	80.5	83.9	72.6	77.9
$10,000 - $12,499	89.7	92.7	91.2	93.9	82.0	86.2	76.8	82.1
$12,500 - $14,999	92.1	94.6	93.4	95.2	82.5	90.7	89.8	91.7
$15,000 - $17,499	94.6	96.2	94.9	96.4	91.7	95.1	86.9	90.8
$17,500 - $19,999	95.7	97.4	96.1	97.7	91.4	95.0	88.4	91.5
$20,000 - $24,999	96.9	97.8	97.4	98.2	91.2	93.2	93.1	94.3
$25,000 - $29,999	98.0	98.9	98.2	99.0	96.1	97.2	98.3	99.0
$30,000 - $34,999	98.8	99.1	99.0	99.2	95.1	97.7	97.7	98.9
$35,000 - $39,999	99.0	99.5	99.1	99.5	98.4	98.4	92.1	98.2
$40,000 - $49,999	99.2	99.5	99.4	99.7	97.3	97.3	100.0	100.0
$50,000 - $74,999	99.4	99.7	99.5	99.7	98.5	100.0	99.6	100.0
$75,000 +	99.4	99.6	99.4	99.6	100.0	100.0	100.0	100.0
1984 ANNUAL AVERAGE								
TOTAL	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
UNDER $5,000	71.2	77.5	74.5	80.4	63.2	70.5	55.1	62.3
$5,000 - $7,499	83.3	86.9	85.5	88.7	74.8	80.2	69.8	73.6
$7,500 - $9,999	86.5	89.6	88.3	91.0	77.2	82.7	75.0	79.7
$10,000 - $12,499	89.7	92.6	91.1	93.6	81.1	86.3	79.7	84.6
$12,500 - $14,999	92.1	94.4	93.0	95.0	85.4	89.5	87.3	90.5
$15,000 - $17,499	93.7	95.7	94.2	96.0	88.5	92.2	88.4	90.0
$17,500 - $19,999	95.1	96.4	95.6	96.7	91.7	94.4	91.0	92.8
$20,000 - $24,999	96.8	97.8	97.1	98.0	93.3	95.8	92.5	94.5
$25,000 - $29,999	98.1	98.8	98.4	98.9	95.1	97.2	96.4	97.2
$30,000 - $34,999	98.7	99.1	98.8	99.3	96.8	97.2	98.8	99.1
$35,000 - $39,999	99.2	99.5	99.3	99.6	97.7	98.3	98.2	98.5
$40,000 - $49,999	99.3	99.6	99.4	99.7	96.6	96.9	98.9	99.3
$50,000 - $74,999	99.4	99.8	99.5	99.8	98.0	98.4	100.0	100.0
$75,000 +	98.9	99.6	98.9	99.6	96.5	100.0	98.0	100.0
1985 ANNUAL AVERAGE								
TOTAL	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
UNDER $5,000	71.9	78.1	75.3	81.3	63.9	70.6	61.6	67.0
$5,000 - $7,499	82.7	86.5	84.8	88.1	74.0	79.8	66.6	71.3
$7,500 - $9,999	86.8	90.0	88.1	90.9	80.3	85.0	75.0	79.4
$10,000 - $12,499	89.6	92.2	90.8	93.2	82.3	86.0	80.4	82.8
$12,500 - $14,999	91.0	93.7	92.2	94.5	82.7	87.8	82.8	85.8
$15,000 - $17,499	93.4	95.6	94.2	96.2	88.2	91.8	85.7	88.6
$17,500 - $19,999	94.7	96.2	95.1	96.6	91.5	93.4	90.4	92.8
$20,000 - $24,999	96.3	97.5	96.5	97.6	94.4	96.3	91.3	93.7
$25,000 - $29,999	97.6	98.5	97.8	98.6	95.8	97.3	93.0	95.9
$30,000 - $34,999	98.6	99.0	98.7	99.1	97.3	98.4	97.3	97.3
$35,000 - $39,999	98.8	99.2	98.9	99.4	96.9	97.8	98.2	99.4
$40,000 - $49,999	99.1	99.4	99.1	99.4	97.8	98.2	97.5	98.2
$50,000 - $74,999	99.3	99.7	99.4	99.7	97.9	98.8	99.5	99.5
$75,000 +	99.2	99.5	99.2	99.5	97.6	97.6	98.5	98.5

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1986 ANNUAL AVERAGE								
TOTAL	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
UNDER $5,000	71.6	77.4	74.9	80.1	63.9	71.0	57.5	62.9
$5,000 - $7,499	83.1	86.5	85.2	88.2	74.3	79.6	68.1	72.1
$7,500 - $9,999	86.9	90.2	88.4	91.1	78.6	85.2	72.9	75.8
$10,000 - $12,499	89.6	92.1	90.7	93.0	82.6	86.4	80.3	82.6
$12,500 - $14,999	91.2	93.8	91.9	94.4	86.4	90.3	83.9	87.8
$15,000 - $17,499	93.1	95.1	94.3	95.7	85.3	91.6	86.3	88.9
$17,500 - $19,999	94.9	96.3	95.3	96.7	92.2	94.2	87.2	90.1
$20,000 - $24,999	96.5	97.5	96.9	97.9	92.8	94.6	93.0	94.1
$25,000 - $29,999	97.7	98.4	98.0	98.7	94.5	95.9	93.9	95.2
$30,000 - $34,999	98.4	98.9	98.6	99.0	96.7	97.5	97.5	98.4
$35,000 - $39,999	98.9	99.3	99.0	99.4	97.6	97.9	98.1	99.3
$40,000 - $49,999	99.1	99.4	99.1	99.4	98.2	98.2	98.5	98.8
$50,000 - $74,999	99.5	99.8	99.6	99.8	99.4	99.4	99.4	99.7
$75,000 +	99.4	99.6	99.4	99.6	98.0	99.5	97.5	100.0
1987 ANNUAL AVERAGE								
TOTAL	92.4	94.2	93.8	95.4	81.8	85.9	83.0	85.4
UNDER $5,000	71.5	77.4	75.0	80.3	63.7	71.0	60.7	65.7
$5,000 - $7,499	83.4	86.7	85.5	88.4	74.8	80.2	69.9	72.4
$7,500 - $9,999	86.7	89.6	88.1	90.6	79.3	84.0	75.8	78.9
$10,000 - $12,499	89.5	92.3	90.4	93.1	83.2	87.5	81.0	84.1
$12,500 - $14,999	90.8	93.2	91.9	94.1	83.8	87.7	85.2	86.9
$15,000 - $17,499	92.6	94.9	93.5	95.5	86.9	90.8	85.6	88.7
$17,500 - $19,999	94.4	96.0	95.1	96.4	89.0	92.7	89.3	90.6
$20,000 - $24,999	96.4	97.6	96.8	97.9	93.5	95.1	93.1	94.9
$25,000 - $29,999	97.5	98.4	98.0	98.7	93.4	95.3	96.4	97.1
$30,000 - $34,999	98.1	98.9	98.3	99.0	96.1	97.2	96.9	97.7
$35,000 - $39,999	98.8	99.2	98.9	99.3	96.5	98.6	97.4	97.7
$40,000 - $49,999	99.4	99.7	99.5	99.7	98.7	98.7	99.7	99.8
$50,000 - $74,999	99.5	99.8	99.5	99.8	99.1	99.4	98.7	99.6
$75,000 +	99.5	99.8	99.5	99.8	98.5	99.6	98.6	100.0
1988 ANNUAL AVERAGE								
TOTAL	92.7	94.5	94.1	95.6	83.0	86.8	82.1	85.1
UNDER $5,000	72.0	78.4	74.9	80.8	65.8	73.2	58.5	64.5
$5,000 - $7,499	83.3	87.1	85.1	88.4	76.9	82.3	66.4	71.7
$7,500 - $9,999	85.6	88.7	87.2	90.3	77.7	81.4	67.3	72.8
$10,000 - $12,499	88.8	91.5	90.1	92.4	81.7	86.5	77.5	80.9
$12,500 - $14,999	91.3	93.7	92.2	94.4	85.1	88.8	81.5	84.5
$15,000 - $19,999	93.6	95.3	94.3	95.9	88.5	91.1	88.6	90.6
$20,000 - $24,999	96.2	97.4	96.5	97.6	93.5	95.7	91.1	93.1
$25,000 - $29,999	97.6	98.4	97.9	98.5	94.4	96.7	95.0	96.4
$30,000 - $34,999	98.4	99.0	98.7	99.2	95.4	96.7	98.6	99.0
$35,000 - $39,999	98.8	99.2	98.9	99.3	97.8	98.4	97.2	97.7
$40,000 - $49,999	99.3	99.6	99.4	99.7	97.3	98.5	98.7	99.7
$50,000 - $74,999	99.5	99.8	99.6	99.8	99.2	99.3	99.4	99.8
$75,000 +	99.5	99.9	99.4	99.9	100.0	100.0	97.8	100.0

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1989 ANNUAL AVERAGE								
TOTAL	93.1	94.9	94.5	95.9	83.2	87.1	83.0	86.0
UNDER $5,000	74.4	80.4	78.1	83.2	65.6	73.5	62.1	67.3
$5,000 - $7,499	83.7	87.4	85.7	89.1	77.4	82.0	68.8	73.8
$7,500 - $9,999	86.6	89.8	88.5	91.3	78.4	83.6	75.9	80.2
$10,000 - $12,499	88.4	91.3	90.0	92.6	79.3	84.9	73.2	76.8
$12,500 - $14,999	91.3	93.7	92.4	94.5	84.5	88.8	79.2	83.7
$15,000 - $19,999	93.2	95.0	94.2	95.8	85.9	89.2	86.3	88.8
$20,000 - $24,999	95.9	97.2	96.4	97.5	91.6	94.3	92.0	94.4
$25,000 - $29,999	97.5	98.4	97.9	98.6	94.0	96.0	93.3	96.3
$30,000 - $34,999	98.3	98.8	98.5	98.9	96.1	97.0	95.6	96.2
$35,000 - $39,999	98.7	99.3	98.9	99.4	96.7	98.0	95.8	97.5
$40,000 - $49,999	99.1	99.5	99.2	99.6	97.2	97.7	97.0	98.2
$50,000 - $59,999	99.5	99.7	99.5	99.8	98.7	99.0	98.7	99.2
$60,000 - $74,999	99.5	99.7	99.5	99.7	99.3	99.3	95.7	96.8
$75,000 +	99.5	99.8	99.5	99.8	99.5	99.5	99.7	99.7
1990 ANNUAL AVERAGE								
TOTAL	93.3	95.0	94.6	96.1	83.5	87.0	82.7	85.3
UNDER $5,000	75.4	81.0	79.1	84.2	66.1	72.8	61.1	66.1
$5,000 - $7,499	82.6	86.8	84.9	88.8	74.9	80.1	66.7	70.6
$7,500 - $9,999	86.9	89.9	89.0	91.6	77.3	82.4	74.8	77.8
$10,000 - $12,499	88.9	91.7	90.2	92.8	81.9	85.5	74.1	77.1
$12,500 - $14,999	91.7	93.9	92.7	94.7	85.9	88.7	82.0	84.3
$15,000 - $19,999	93.3	95.3	94.2	96.0	87.7	91.0	85.1	88.6
$20,000 - $24,999	95.6	97.0	96.1	97.4	91.9	93.7	89.4	91.3
$25,000 - $29,999	97.0	98.0	97.7	98.5	90.9	93.2	94.2	95.5
$30,000 - $34,999	97.9	98.6	98.4	98.9	93.3	95.4	96.0	97.0
$35,000 - $39,999	98.7	99.3	98.8	99.4	97.0	98.0	94.1	96.3
$40,000 - $49,999	99.1	99.4	99.2	99.5	98.5	98.8	97.8	97.8
$50,000 - $59,999	99.4	99.6	99.5	99.7	98.7	98.7	97.5	98.2
$60,000 - $74,999	99.5	99.7	99.6	99.8	98.3	98.8	98.8	99.1
$75,000 +	99.5	99.8	99.5	99.8	98.6	98.6	97.7	99.6
1991 ANNUAL AVERAGE								
TOTAL	93.4	95.1	94.8	96.2	83.5	87.2	84.1	86.7
UNDER $5,000	73.9	80.1	78.3	83.7	63.3	71.2	65.2	71.3
$5,000 - $7,499	82.9	86.8	85.2	88.8	75.0	80.3	69.6	74.7
$7,500 - $9,999	86.5	89.7	88.1	91.0	79.1	83.7	73.1	76.9
$10,000 - $12,499	88.9	91.6	90.0	92.5	82.4	86.2	76.0	79.2
$12,500 - $14,999	91.1	93.4	92.1	94.3	85.5	88.4	82.4	84.6
$15,000 - $19,999	93.4	95.2	94.3	95.9	87.1	90.7	87.0	89.8
$20,000 - $24,999	95.5	97.0	96.0	97.5	91.2	93.3	91.6	93.5
$25,000 - $29,999	96.8	97.9	97.3	98.2	93.6	96.0	90.9	92.4
$30,000 - $34,999	98.3	98.9	98.6	99.2	95.4	97.1	95.8	97.1
$35,000 - $39,999	98.7	99.1	98.8	99.3	97.0	97.7	96.2	97.3
$40,000 - $49,999	99.1	99.5	99.2	99.6	98.1	98.6	98.2	98.8
$50,000 - $59,999	99.5	99.7	99.5	99.7	98.6	99.0	97.9	98.6
$60,000 - $74,999	99.7	99.9	99.7	99.9	99.3	99.5	98.8	99.2
$75,000 +	99.7	99.9	99.7	99.9	99.6	100.0	98.5	99.6

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1992 ANNUAL AVERAGE								
TOTAL	93.8	95.3	95.2	96.4	84.2	87.9	85.8	88.2
UNDER $5,000	72.0	78.1	75.5	81.1	64.1	71.3	65.0	70.7
$5,000 - $7,499	83.2	86.8	85.4	88.3	76.3	82.3	72.0	75.5
$7,500 - $9,999	87.5	90.2	89.2	91.4	79.9	84.9	76.2	79.9
$10,000 - $12,499	90.5	92.9	91.6	93.9	84.6	87.9	82.1	85.3
$12,500 - $14,999	91.5	93.7	92.7	94.7	85.1	88.4	85.7	88.8
$15,000 - $19,999	93.3	95.0	94.3	95.7	86.6	90.6	86.7	89.5
$20,000 - $24,999	95.9	97.1	96.5	97.5	91.2	93.7	93.2	94.5
$25,000 - $29,999	97.1	98.0	97.6	98.5	92.6	94.6	94.8	95.6
$30,000 - $34,999	98.2	98.9	98.4	99.0	96.3	97.4	96.1	97.1
$35,000 - $39,999	98.6	99.0	98.9	99.3	96.4	97.4	96.6	97.5
$40,000 - $49,999	99.2	99.5	99.4	99.6	97.6	98.5	98.2	98.7
$50,000 - $59,999	99.4	99.7	99.4	99.7	98.9	99.6	98.3	98.5
$60,000 - $74,999	99.5	99.8	99.5	99.8	99.3	99.6	98.9	99.7
$75,000 +	99.4	99.7	99.5	99.8	97.7	97.9	99.1	99.1
1993 ANNUAL AVERAGE								
TOTAL	94.2	95.6	95.5	96.6	85.2	88.3	86.7	88.8
UNDER $5,000	72.9	78.9	76.4	82.0	65.5	72.7	66.3	70.7
$5,000 - $7,499	84.0	87.2	85.7	88.8	78.7	82.4	75.7	78.6
$7,500 - $9,999	87.4	90.1	89.1	91.4	80.1	84.6	79.7	82.8
$10,000 - $12,499	90.6	92.7	91.9	93.8	82.9	86.7	85.7	88.3
$12,500 - $14,999	92.0	94.1	93.2	95.1	84.8	88.7	84.0	86.2
$15,000 - $19,999	93.6	95.2	94.5	96.0	88.0	90.4	85.3	88.3
$20,000 - $24,999	96.3	97.5	96.8	97.8	92.6	94.6	91.9	94.6
$25,000 - $29,999	97.7	98.5	98.1	98.8	94.5	96.1	95.5	96.9
$30,000 - $34,999	98.3	98.9	98.6	99.1	96.3	96.9	96.2	97.3
$35,000 - $39,999	98.6	99.0	98.8	99.2	96.3	97.1	95.7	96.3
$40,000 - $49,999	99.2	99.5	99.3	99.5	98.2	98.6	96.9	97.4
$50,000 - $59,999	99.5	99.7	99.5	99.7	99.0	99.3	98.4	99.1
$60,000 - $74,999	99.6	99.8	99.6	99.8	99.3	99.3	100.0	100.0
$75,000 +	99.5	99.8	99.5	99.8	99.4	100.0	100.0	100.0
1994 ANNUAL AVERAGE								
TOTAL	93.8	95.4	95.1	96.4	85.7	89.4	86.0	88.3
UNDER $5,000	76.1	82.1	79.8	84.6	68.7	77.4	66.3	71.8
$5,000 - $7,499	82.7	87.0	84.9	88.9	77.2	82.4	73.1	77.3
$7,500 - $9,999	87.3	90.5	89.1	92.1	81.4	84.9	81.1	83.8
$10,000 - $12,499	89.6	92.2	90.9	93.1	81.5	88.6	83.3	86.2
$12,500 - $14,999	91.5	94.0	92.9	95.0	85.5	89.2	84.6	87.8
$15,000 - $19,999	93.6	95.3	94.4	95.8	86.6	92.2	87.6	89.7
$20,000 - $24,999	95.2	96.7	95.8	97.2	90.3	93.5	91.4	93.5
$25,000 - $29,999	96.6	97.6	97.0	97.9	93.9	95.8	92.1	93.3
$30,000 - $34,999	97.3	98.2	97.7	98.5	93.8	95.7	91.7	93.9
$35,000 - $39,999	97.8	98.5	98.1	98.6	94.4	97.3	95.2	96.0
$40,000 - $49,999	98.6	99.1	98.8	99.3	97.2	97.8	96.4	96.6
$50,000 - $59,999	99.0	99.3	99.2	99.4	96.3	98.1	99.5	99.7
$60,000 - $74,999	99.4	99.5	99.4	99.5	99.5	99.7	98.3	98.5
$75,000 +	99.1	99.4	99.2	99.4	98.6	99.3	98.7	98.7

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1995 ANNUAL AVERAGE								
TOTAL	93.9	95.2	95.2	96.2	86.2	89.2	85.9	87.8
UNDER $5,000	75.3	80.5	79.1	83.0	67.4	75.1	68.8	72.2
$5,000 - $7,499	82.8	86.3	84.8	87.7	77.9	83.0	72.6	75.5
$7,500 - $9,999	87.3	89.6	89.5	91.5	79.0	83.3	78.0	80.4
$10,000 - $12,499	89.8	92.1	91.2	93.2	83.5	87.6	84.2	86.4
$12,500 - $14,999	91.7	93.5	92.8	94.4	86.4	89.3	84.9	86.8
$15,000 - $19,999	93.1	95.0	94.1	95.6	88.5	92.4	84.9	87.6
$20,000 - $24,999	95.4	96.4	96.0	96.9	92.4	94.1	90.2	92.1
$25,000 - $29,999	96.6	97.6	97.0	97.9	93.7	95.6	92.2	94.3
$30,000 - $34,999	97.6	98.0	97.9	98.3	94.3	95.2	94.2	95.1
$35,000 - $39,999	98.3	98.7	98.5	98.8	96.9	97.5	97.3	98.4
$40,000 - $49,999	98.6	98.9	98.8	99.0	97.1	97.8	96.6	96.6
$50,000 - $59,999	98.8	99.1	99.0	99.3	97.7	98.2	95.7	97.0
$60,000 - $74,999	99.2	99.3	99.2	99.4	98.8	99.0	98.6	99.4
$75,000 +	99.0	99.2	99.0	99.2	99.1	99.5	99.0	99.0
1996 ANNUAL AVERAGE								
TOTAL	93.9	95.0	94.9	95.8	87.3	89.8	86.4	88.0
UNDER $5,000	75.6	80.3	78.0	81.7	70.1	76.9	68.0	71.4
$5,000 - $7,499	83.1	85.8	84.5	86.6	79.9	84.3	76.9	78.8
$7,500 - $9,999	87.2	89.8	88.6	90.7	81.9	86.7	79.7	82.3
$10,000 - $12,499	88.8	91.4	90.2	92.3	83.5	88.1	82.0	84.3
$12,500 - $14,999	91.7	93.5	92.8	94.4	86.1	89.5	85.1	87.0
$15,000 - $19,999	93.0	94.6	93.7	95.1	88.7	91.3	86.5	88.7
$20,000 - $24,999	94.5	95.6	95.1	96.0	91.3	92.6	86.5	88.6
$25,000 - $29,999	96.2	97.1	96.5	97.3	93.3	95.0	94.5	95.4
$30,000 - $34,999	97.5	98.1	97.7	98.3	96.4	97.4	95.7	96.3
$35,000 - $39,999	97.9	98.3	97.8	98.2	97.5	98.0	95.2	95.7
$40,000 - $49,999	98.5	98.9	98.7	99.0	96.7	97.0	96.1	97.5
$50,000 - $59,999	98.8	99.0	99.0	99.1	97.3	97.6	97.5	98.2
$60,000 - $74,999	98.8	99.1	99.0	99.3	97.3	97.3	97.9	99.4
$75,000 +	98.9	99.2	99.0	99.2	98.7	99.2	98.4	98.7
1997 ANNUAL AVERAGE								
TOTAL	93.9	95.0	95.0	95.9	86.9	89.5	86.7	88.6
UNDER $5,000	75.7	80.8	79.1	83.5	68.4	75.1	68.5	73.5
$5,000 - $7,499	82.8	85.9	84.5	87.1	78.1	82.4	74.6	77.0
$7,500 - $9,999	86.7	89.5	89.0	91.2	78.6	83.3	79.3	81.4
$10,000 - $12,499	89.9	91.9	90.9	92.7	85.3	88.1	82.4	86.0
$12,500 - $14,999	91.0	93.1	92.4	94.0	83.9	88.1	84.5	86.4
$15,000 - $19,999	93.1	94.6	94.1	95.3	88.8	91.8	86.7	88.4
$20,000 - $24,999	95.0	95.9	95.4	96.2	92.1	93.9	89.6	90.9
$25,000 - $29,999	95.8	96.8	96.2	97.1	92.6	94.7	91.8	93.7
$30,000 - $34,999	97.2	97.9	97.5	98.1	95.1	95.9	93.6	94.9
$35,000 - $39,999	97.4	97.9	97.9	98.1	94.8	96.2	94.9	96.4
$40,000 - $49,999	98.2	98.6	98.4	98.7	97.0	97.8	96.6	97.4
$50,000 - $59,999	98.4	98.8	98.5	98.9	96.9	97.3	97.7	98.6
$60,000 - $74,999	99.0	99.2	99.0	99.2	99.5	99.8	98.4	98.4
$75,000 +	99.0	99.2	99.1	99.3	98.5	98.8	98.1	98.3

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1998 ANNUAL AVERAGE								
TOTAL	94.1	95.2	95.1	96.0	87.9	89.7	88.4	90.0
UNDER $5,000	77.2	81.3	80.1	83.8	70.3	75.2	72.0	75.3
$5,000 - $7,499	83.0	85.9	84.9	87.6	77.6	81.0	77.0	80.6
$7,500 - $9,999	87.4	89.3	88.8	90.6	83.3	85.0	79.7	81.6
$10,000 - $12,499	89.8	91.7	90.7	92.5	85.7	88.5	84.6	86.2
$12,500 - $14,999	91.0	92.8	92.0	93.7	85.8	88.2	85.3	86.4
$15,000 - $19,999	93.0	94.2	94.0	95.2	88.3	89.6	89.6	91.0
$20,000 - $24,999	93.9	95.2	94.6	95.8	90.2	92.2	88.4	90.2
$25,000 - $29,999	95.6	96.6	95.8	96.7	94.0	95.9	91.3	93.5
$30,000 - $34,999	97.1	97.8	97.5	98.2	94.3	95.6	95.3	96.7
$35,000 - $39,999	97.5	98.0	97.8	98.3	95.4	96.4	95.9	96.8
$40,000 - $49,999	98.1	98.5	98.3	98.7	96.2	96.7	96.9	97.4
$50,000 - $59,999	98.1	98.5	98.2	98.6	96.8	97.5	95.7	96.7
$60,000 - $74,999	98.6	98.8	98.8	99.0	96.9	97.4	97.5	97.5
$75,000 +	99.0	99.2	99.0	99.2	99.1	99.1	98.6	98.8
1999 ANNUAL AVERAGE								
TOTAL	94.2	95.0	95.2	95.9	87.7	89.6	89.9	90.9
UNDER $5,000	76.0	79.8	79.0	82.6	69.5	74.2	72.8	75.6
$5,000 - $7,499	82.9	85.3	84.6	87.0	78.3	81.2	79.8	83.3
$7,500 - $9,999	88.3	90.3	89.9	91.5	81.8	85.5	85.0	85.8
$10,000 - $12,499	88.9	90.5	90.4	91.8	82.1	84.9	85.2	86.5
$12,500 - $14,999	90.3	92.0	91.0	92.4	87.1	89.8	84.8	85.9
$15,000 - $19,999	92.5	94.0	93.5	94.7	87.0	90.2	88.3	89.5
$20,000 - $24,999	94.1	95.1	94.8	95.7	90.5	92.1	91.5	92.8
$25,000 - $29,999	95.3	96.2	95.9	96.6	91.8	93.5	95.2	95.7
$30,000 - $34,999	96.7	97.4	97.2	97.7	93.9	95.5	94.7	95.2
$35,000 - $39,999	97.3	97.8	97.8	98.2	94.3	95.1	96.1	96.6
$40,000 - $49,999	98.2	98.5	98.3	98.6	97.2	97.6	95.8	96.5
$50,000 - $59,999	98.2	98.5	98.3	98.7	97.2	97.4	98.1	98.5
$60,000 - $74,999	98.6	98.8	98.6	98.9	97.6	98.4	98.2	98.4
$75,000 +	98.8	99.0	98.9	99.1	97.8	98.2	97.7	98.2
MARCH 2000								
TOTAL	94.6	95.3	95.4	96.0	89.7	91.2	90.6	91.5
UNDER $5,000	80.3	83.3	84.4	87.2	71.4	74.5	81.1	83.8
$5,000 - $7,499	83.5	85.8	83.6	85.8	82.8	85.6	80.6	84.4
$7,500 - $9,999	88.1	90.5	89.7	91.7	82.9	86.1	89.2	90.9
$10,000 - $12,499	89.5	91.2	90.5	92.1	85.8	87.9	81.4	83.8
$12,500 - $14,999	92.0	93.1	92.9	94.0	87.6	88.6	87.7	88.3
$15,000 - $19,999	92.3	93.7	93.3	94.5	87.7	89.7	84.9	86.5
$20,000 - $24,999	94.8	95.3	95.0	95.5	93.5	94.3	91.0	91.0
$25,000 - $29,999	96.0	96.5	96.4	96.8	93.1	94.6	94.1	94.5
$30,000 - $34,999	95.9	96.6	96.0	96.8	94.9	95.4	93.3	94.4
$35,000 - $39,999	97.4	97.8	97.8	98.3	94.6	95.6	95.4	95.4
$40,000 - $49,999	97.4	97.8	97.8	98.1	94.4	94.7	96.8	97.2
$50,000 - $59,999	98.3	98.5	98.3	98.5	97.7	98.1	97.6	97.6
$60,000 - $74,999	98.4	98.5	98.5	98.7	96.3	96.6	96.8	97.4
$75,000 +	98.5	98.7	98.5	98.7	96.8	97.2	95.6	96.1

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
JULY 2000								
TOTAL	94.4	95.2	95.2	95.9	89.2	90.6	90.5	91.7
UNDER $5,000	79.2	82.5	81.5	84.7	72.9	76.3	75.2	78.5
$5,000 - $7,499	85.3	87.0	86.3	88.1	82.4	83.9	83.5	85.5
$7,500 - $9,999	86.5	88.9	88.0	89.7	81.1	85.8	86.1	87.4
$10,000 - $12,499	90.3	91.7	91.1	92.4	86.3	88.9	85.4	87.5
$12,500 - $14,999	92.1	93.7	93.6	95.1	85.6	87.4	88.1	90.4
$15,000 - $19,999	90.8	92.5	91.5	93.2	87.1	89.2	88.4	89.8
$20,000 - $24,999	93.3	94.6	93.8	95.1	91.0	92.8	90.4	91.6
$25,000 - $29,999	95.7	96.5	96.5	97.3	92.2	93.3	92.9	94.4
$30,000 - $34,999	96.5	97.1	96.5	97.1	95.6	96.6	95.3	95.6
$35,000 - $39,999	97.1	97.5	97.5	97.8	94.9	94.9	94.9	95.6
$40,000 - $49,999	98.0	98.6	98.0	98.6	97.2	98.3	98.2	99.3
$50,000 - $59,999	98.0	98.4	98.3	98.6	96.0	97.0	98.0	98.0
$60,000 - $74,999	98.6	98.8	98.8	99.0	96.7	97.1	95.9	96.4
$75,000 +	98.5	98.8	98.5	98.8	98.3	98.3	96.9	97.4
NOVEMBER 2000								
TOTAL	94.1	95.0	94.9	95.7	88.9	90.3	90.4	91.5
UNDER $5,000	80.4	83.6	83.3	86.7	74.7	78.2	80.6	83.7
$5,000 - $7,499	83.7	86.1	85.2	87.0	79.9	84.3	83.0	84.1
$7,500 - $9,999	86.3	88.4	87.5	89.6	82.7	85.2	82.1	82.8
$10,000 - $12,499	90.1	91.7	91.1	92.9	85.6	85.8	85.3	86.7
$12,500 - $14,999	90.5	91.9	91.5	92.8	86.4	87.7	88.3	90.9
$15,000 - $19,999	91.9	93.4	93.0	94.5	85.9	88.3	88.3	89.2
$20,000 - $24,999	93.1	94.3	94.2	95.1	86.9	89.5	91.0	91.3
$25,000 - $29,999	94.7	95.8	95.1	96.2	92.2	93.5	92.0	93.9
$30,000 - $34,999	96.9	97.3	97.2	97.6	95.7	96.4	92.4	92.8
$35,000 - $39,999	97.0	97.7	97.3	98.0	95.7	96.5	96.0	96.4
$40,000 - $49,999	97.7	98.2	97.8	98.4	96.3	96.3	95.0	96.8
$50,000 - $59,999	97.8	98.1	97.8	98.2	97.4	97.4	97.2	97.7
$60,000 - $74,999	98.3	98.8	98.3	98.7	98.0	98.7	95.0	95.8
$75,000 +	98.3	98.6	98.4	98.7	97.5	97.6	98.1	98.7
2000 ANNUAL AVERAGE								
TOTAL	94.4	95.2	95.2	95.9	89.3	90.7	90.5	91.6
UNDER $5,000	80.0	83.1	83.1	86.2	73.0	76.3	79.0	82.0
$5,000 - $7,499	84.2	86.3	85.0	87.0	81.7	84.6	82.4	84.7
$7,500 - $9,999	87.0	89.3	88.4	90.3	82.2	85.7	85.8	87.0
$10,000 - $12,499	90.0	91.5	90.9	92.5	85.9	87.5	84.0	86.0
$12,500 - $14,999	91.5	92.9	92.7	94.0	86.5	87.9	88.0	89.9
$15,000 - $19,999	91.7	93.2	92.6	94.1	86.9	89.1	87.2	88.5
$20,000 - $24,999	93.7	94.7	94.3	95.2	90.5	92.2	90.8	91.3
$25,000 - $29,999	95.5	96.3	96.0	96.8	92.5	93.8	93.0	94.3
$30,000 - $34,999	96.4	97.0	96.6	97.2	95.4	96.1	93.7	94.3
$35,000 - $39,999	97.2	97.7	97.5	98.0	95.1	95.7	95.4	95.8
$40,000 - $49,999	97.7	98.2	97.9	98.4	96.0	96.4	96.7	97.8
$50,000 - $59,999	98.0	98.3	98.1	98.4	97.0	97.5	97.6	97.8
$60,000 - $74,999	98.4	98.7	98.5	98.8	97.0	97.5	95.9	96.5
$75,000 +	98.4	98.7	98.5	98.7	97.5	97.7	96.9	97.4

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
MARCH 2001								
TOTAL	94.6	95.4	95.3	96.1	89.5	91.0	91.7	92.5
UNDER $5,000	79.0	81.7	82.9	84.6	69.8	74.5	78.6	80.2
$5,000 - $7,499	83.7	86.2	85.1	87.3	80.4	84.0	84.9	85.4
$7,500 - $9,999	87.5	90.0	88.5	90.6	84.6	89.1	87.6	89.3
$10,000 - $12,499	91.1	92.6	92.2	93.8	86.2	87.7	88.5	89.7
$12,500 - $14,999	91.0	91.7	91.0	91.9	88.4	88.7	86.7	87.3
$15,000 - $19,999	92.7	94.2	93.2	94.4	89.8	92.7	89.8	90.8
$20,000 - $24,999	94.3	95.4	95.1	96.1	89.1	91.5	91.7	93.1
$25,000 - $29,999	95.9	97.0	96.1	97.1	94.2	95.5	91.6	92.2
$30,000 - $34,999	96.8	97.3	97.0	97.4	95.8	96.6	96.2	96.2
$35,000 - $39,999	97.5	97.7	97.5	97.7	96.9	97.2	97.6	98.3
$40,000 - $49,999	97.6	98.2	98.0	98.5	95.9	96.3	96.4	96.4
$50,000 - $59,999	98.0	98.3	98.1	98.5	96.8	97.2	98.1	98.7
$60,000 - $74,999	98.2	98.5	98.4	98.6	97.8	98.6	97.3	98.4
$75,000 +	98.5	98.9	98.6	99.0	98.2	98.2	97.7	98.3
JULY 2001								
TOTAL	95.1	95.9	95.8	96.5	90.3	91.8	91.3	92.5
UNDER $5,000	81.7	85.1	85.6	87.7	73.3	79.8	81.0	84.9
$5,000 - $7,499	83.7	86.0	85.9	87.7	78.4	82.2	83.1	85.5
$7,500 - $9,999	90.7	92.3	92.1	93.5	86.1	87.9	86.7	90.5
$10,000 - $12,499	90.5	92.4	91.2	92.9	87.6	90.8	85.0	86.9
$12,500 - $14,999	91.5	92.9	93.0	94.0	82.5	86.3	89.0	89.0
$15,000 - $19,999	93.5	94.5	94.1	95.3	91.0	91.9	88.5	89.5
$20,000 - $24,999	94.3	95.6	94.7	96.0	91.6	93.3	89.8	93.0
$25,000 - $29,999	96.4	97.1	96.8	97.5	94.0	95.3	93.6	94.5
$30,000 - $34,999	96.8	97.3	96.8	97.2	97.0	97.7	94.3	94.6
$35,000 - $39,999	97.6	97.9	97.6	97.9	97.4	97.5	94.2	94.7
$40,000 - $49,999	98.0	98.4	97.9	98.4	97.4	97.8	96.8	97.0
$50,000 - $59,999	98.4	98.9	98.4	98.9	98.1	98.2	95.5	97.3
$60,000 - $74,999	98.9	99.1	99.0	99.2	98.4	98.5	97.1	97.1
$75,000 +	98.9	99.1	98.9	99.1	97.7	98.3	99.0	99.0
NOVEMBER 2001								
TOTAL	94.9	95.8	95.6	96.5	90.3	91.5	90.8	92.2
UNDER $5,000	79.1	83.0	80.8	84.7	75.1	79.7	76.8	81.9
$5,000 - $7,499	84.5	86.8	85.1	87.5	83.0	85.3	85.1	86.1
$7,500 - $9,999	88.1	89.6	89.4	90.7	83.0	84.8	85.3	85.9
$10,000 - $12,499	89.1	91.0	89.9	91.7	84.3	86.7	84.0	85.9
$12,500 - $14,999	91.7	93.1	92.6	94.0	88.7	89.8	89.6	90.2
$15,000 - $19,999	92.5	94.4	93.2	95.0	89.3	91.3	88.2	91.6
$20,000 - $24,999	94.2	95.2	95.0	95.9	90.7	91.6	92.3	93.1
$25,000 - $29,999	95.7	96.6	95.6	96.5	96.5	97.2	92.7	93.9
$30,000 - $34,999	96.6	97.3	97.2	97.9	93.0	93.8	94.2	94.7
$35,000 - $39,999	96.6	97.8	96.9	98.0	94.0	95.6	96.1	97.0
$40,000 - $49,999	97.9	98.3	97.9	98.4	97.7	97.7	94.9	94.9
$50,000 - $59,999	98.8	99.1	98.9	99.3	97.0	97.0	98.3	99.3
$60,000 - $74,999	98.7	99.2	98.8	99.3	97.5	97.8	95.0	97.1
$75,000 +	98.9	99.2	98.9	99.2	98.9	99.2	98.0	98.8

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
2001 ANNUAL AVERAGE								
TOTAL	94.9	95.7	95.6	96.4	90.0	91.4	91.3	92.4
UNDER $5,000	79.9	83.3	83.1	85.7	72.7	78.0	78.8	82.3
$5,000 - $7,499	84.0	86.3	85.4	87.5	80.6	83.8	84.4	85.7
$7,500 - $9,999	88.8	90.6	90.0	91.6	84.6	87.3	86.5	88.6
$10,000 - $12,499	90.2	92.0	91.1	92.8	86.0	88.4	85.8	87.5
$12,500 - $14,999	91.4	92.6	92.2	93.3	86.5	88.3	88.4	88.8
$15,000 - $19,999	92.9	94.4	93.5	94.9	90.0	92.0	88.8	90.6
$20,000 - $24,999	94.3	95.4	94.9	96.0	90.5	92.1	91.3	93.1
$25,000 - $29,999	96.0	96.9	96.2	97.0	94.9	96.0	92.6	93.5
$30,000 - $34,999	96.7	97.3	97.0	97.5	95.3	96.0	94.9	95.2
$35,000 - $39,999	97.2	97.8	97.3	97.9	96.1	96.8	96.0	96.7
$40,000 - $49,999	97.8	98.3	97.9	98.4	97.0	97.3	96.0	96.1
$50,000 - $59,999	98.4	98.8	98.5	98.9	97.3	97.5	97.3	98.4
$60,000 - $74,999	98.6	98.9	98.7	99.0	97.9	98.3	96.5	97.5
$75,000 +	98.8	99.1	98.8	99.1	98.3	98.6	98.2	98.7
MARCH 2002								
TOTAL	95.5	96.3	96.3	97.0	90.8	92.1	91.8	92.9
UNDER $5,000	81.0	83.9	84.2	86.6	73.7	77.7	79.9	82.1
$5,000 - $7,499	84.0	86.8	85.6	88.5	78.8	81.7	84.1	86.0
$7,500 - $9,999	90.9	92.3	92.2	93.3	88.2	89.4	90.0	91.1
$10,000 - $12,499	90.2	91.5	91.6	92.6	84.4	86.1	89.6	91.1
$12,500 - $14,999	92.9	94.0	93.8	95.1	89.6	90.1	87.1	89.0
$15,000 - $19,999	93.1	94.6	93.3	94.5	91.8	94.6	86.9	88.7
$20,000 - $24,999	94.8	95.6	95.5	96.3	92.1	92.7	93.9	94.8
$25,000 - $29,999	95.5	96.8	96.3	97.4	91.2	93.0	93.1	95.0
$30,000 - $34,999	97.1	97.5	97.2	97.7	96.5	96.5	93.4	94.2
$35,000 - $39,999	97.9	98.4	98.0	98.5	97.2	97.8	97.0	97.7
$40,000 - $49,999	98.2	98.6	98.4	98.8	96.6	97.2	97.4	97.5
$50,000 - $59,999	99.0	99.6	99.0	99.5	99.6	99.6	98.2	99.3
$60,000 - $74,999	99.4	99.6	99.6	99.7	98.8	98.8	98.8	99.3
$75,000 +	99.3	99.5	99.3	99.6	98.8	98.8	99.5	99.5
JULY 2002								
TOTAL	95.1	96.0	96.0	96.7	89.9	91.6	90.7	92.0
UNDER $5,000	78.9	82.2	80.5	83.8	74.5	78.7	75.4	79.3
$5,000 - $7,499	82.6	86.0	86.2	88.9	73.3	78.3	84.1	84.5
$7,500 - $9,999	89.7	91.6	90.2	92.1	87.0	89.2	86.5	89.1
$10,000 - $12,499	90.4	92.3	91.7	93.2	85.2	89.0	88.1	90.7
$12,500 - $14,999	92.5	93.4	93.2	94.0	89.5	90.8	87.9	89.7
$15,000 - $19,999	92.9	94.1	93.7	94.7	90.9	92.6	86.7	87.8
$20,000 - $24,999	93.6	95.0	94.6	96.0	88.6	90.5	89.7	91.8
$25,000 - $29,999	95.4	96.3	95.6	96.5	94.2	94.9	92.6	94.3
$30,000 - $34,999	96.3	97.3	97.1	97.9	92.2	93.7	94.5	96.1
$35,000 - $39,999	98.1	98.5	98.2	98.6	97.9	98.0	97.2	97.2
$40,000 - $49,999	97.8	98.3	98.0	98.4	96.6	97.3	94.9	96.1
$50,000 - $59,999	98.5	98.9	98.7	99.0	98.4	98.4	97.0	97.0
$60,000 - $74,999	98.9	99.2	98.9	99.3	98.1	99.0	96.7	97.6
$75,000 +	99.3	99.6	99.4	99.6	98.2	98.5	99.2	99.4
	RACE						HISPANIC	

Table 4
Percentage of Households with a Telephone by Income

	TOTAL		WHITE		BLACK		ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 2002								
TOTAL	95.3	96.2	96.2	96.9	89.7	91.2	92.7	93.7
UNDER $5,000	79.8	83.1	82.8	85.3	73.1	77.8	78.2	80.8
$5,000 - $7,499	83.2	85.6	85.8	88.4	77.0	79.1	85.2	86.6
$7,500 - $9,999	88.6	90.8	91.0	92.7	80.8	84.6	88.8	91.6
$10,000 - $12,499	91.1	93.0	92.4	94.0	86.4	88.6	86.6	87.4
$12,500 - $14,999	92.8	94.2	93.2	94.6	90.5	92.0	90.8	91.9
$15,000 - $19,999	93.6	94.8	94.3	95.3	90.5	93.2	89.4	90.7
$20,000 - $24,999	94.4	95.6	95.2	96.2	91.2	93.2	93.4	94.4
$25,000 - $29,999	95.8	96.7	96.0	97.0	94.5	95.2	94.5	96.5
$30,000 - $34,999	97.3	97.8	97.8	98.2	95.5	96.3	97.6	97.6
$35,000 - $39,999	97.7	98.3	97.9	98.6	96.2	96.7	98.1	98.9
$40,000 - $49,999	98.5	98.9	98.7	99.1	96.5	96.8	97.7	98.8
$50,000 - $59,999	98.6	99.0	98.9	99.2	96.1	96.7	98.6	98.6
$60,000 - $74,999	98.9	99.3	99.0	99.4	98.1	98.6	99.4	99.9
$75,000 +	99.3	99.5	99.3	99.5	98.7	98.7	98.8	98.8
2002 ANNUAL AVERAGE								
TOTAL	95.3	96.2	96.2	96.9	90.1	91.6	91.7	92.9
UNDER $5,000	79.9	83.1	82.5	85.2	73.8	78.1	77.8	80.7
$5,000 - $7,499	83.3	86.1	85.9	88.6	76.4	79.7	84.5	85.7
$7,500 - $9,999	89.7	91.6	91.1	92.7	85.3	87.7	88.4	90.6
$10,000 - $12,499	90.6	92.3	91.9	93.3	85.3	87.9	88.1	89.7
$12,500 - $14,999	92.7	93.9	93.4	94.6	89.9	91.0	88.6	90.2
$15,000 - $19,999	93.2	94.5	93.8	94.8	91.1	93.5	87.7	89.1
$20,000 - $24,999	94.3	95.4	95.1	96.2	90.6	92.1	92.3	93.7
$25,000 - $29,999	95.6	96.6	96.0	97.0	93.3	94.4	93.4	95.3
$30,000 - $34,999	96.9	97.5	97.4	97.9	94.7	95.5	95.2	96.0
$35,000 - $39,999	97.9	98.4	98.0	98.6	97.1	97.5	97.4	97.9
$40,000 - $49,999	98.2	98.6	98.4	98.8	96.6	97.1	96.7	97.5
$50,000 - $59,999	98.7	99.2	98.9	99.2	98.0	98.2	97.9	98.3
$60,000 - $74,999	99.1	99.4	99.2	99.5	98.3	98.8	98.3	98.9
$75,000 +	99.3	99.5	99.3	99.6	98.6	98.7	99.2	99.2
MARCH 2003								
TOTAL	95.5	96.3	96.2	96.9	91.0	92.1	92.3	93.2
UNDER $5,000	80.5	84.6	83.0	87.3	76.0	80.3	79.5	83.9
$5,000 - $7,499	86.5	88.2	86.6	88.6	83.6	85.0	81.0	82.1
$7,500 - $9,999	89.7	91.2	90.9	92.3	85.5	86.9	88.2	90.5
$10,000 - $12,499	91.6	92.6	92.2	93.2	87.8	89.4	87.9	89.3
$12,500 - $14,999	92.0	93.0	92.5	93.7	88.9	89.7	89.4	90.3
$15,000 - $19,999	93.6	94.8	94.7	95.6	88.9	90.8	90.6	91.4
$20,000 - $24,999	94.0	94.9	94.7	95.5	90.1	91.2	92.1	93.2
$25,000 - $29,999	95.8	96.5	96.2	96.8	94.2	94.8	93.3	93.5
$30,000 - $34,999	96.7	97.4	96.9	97.7	94.2	94.6	95.4	96.3
$35,000 - $39,999	98.0	98.5	98.3	98.8	96.0	96.3	98.6	98.6
$40,000 - $49,999	98.0	98.5	97.9	98.4	98.4	99.2	95.9	96.4
$50,000 - $59,999	98.6	99.1	98.8	99.2	97.4	98.2	97.5	98.3
$60,000 - $74,999	98.8	99.2	98.8	99.3	98.1	98.1	97.3	97.9
$75,000 +	99.3	99.6	99.4	99.6	99.3	99.6	98.8	99.1

Table 5
Percentage of Households with a Telephone by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 1983								
TOTAL	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
1 PERSON	87.5	91.3	90.2	93.7	71.2	77.1	73.8	82.0
2 - 3	93.3	95.0	94.5	95.9	82.5	87.8	80.7	84.3
4 - 5	92.4	94.2	93.6	95.0	83.1	87.3	83.4	86.2
6 +	86.6	88.9	90.5	92.2	74.5	78.5	81.0	84.0
1984 ANNUAL AVERAGE								
TOTAL	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
1 PERSON	88.3	91.8	90.3	93.4	74.9	80.7	72.9	79.4
2 - 3	93.2	94.9	94.5	95.9	82.3	86.8	82.0	85.2
4 - 5	92.5	94.0	93.9	95.1	81.8	85.7	83.9	86.2
6 +	86.9	88.8	89.8	91.1	76.3	80.1	79.2	81.8
1985 ANNUAL AVERAGE								
TOTAL	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
1 PERSON	87.6	91.2	89.9	93.1	73.6	79.8	71.9	78.5
2 - 3	93.5	95.0	94.5	95.8	84.9	87.9	83.6	86.0
4 - 5	94.2	95.3	95.2	96.1	87.6	90.4	85.6	87.0
6 +	90.3	91.8	92.8	93.6	81.3	84.9	85.6	86.1
1986 ANNUAL AVERAGE								
TOTAL	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
1 PERSON	88.1	91.4	90.4	93.2	75.4	81.0	73.9	79.3
2 - 3	94.0	95.3	95.0	96.1	85.3	88.9	83.1	85.4
4 - 5	94.4	95.3	95.4	96.1	87.9	90.4	85.5	86.7
6 +	90.1	91.5	92.9	93.5	77.8	82.8	83.3	84.1
1987 ANNUAL AVERAGE								
TOTAL	92.4	94.2	93.8	95.4	81.8	85.9	83.0	85.4
1 PERSON	89.5	92.7	91.3	94.1	77.8	83.1	79.5	83.5
2 - 3	93.9	95.3	95.1	96.3	83.9	87.3	83.8	86.3
4 - 5	93.0	94.5	94.3	95.4	83.6	87.4	84.4	86.4
6 +	87.4	89.1	89.8	91.0	77.4	81.5	80.6	81.6
1988 ANNUAL AVERAGE								
TOTAL	92.7	94.5	94.1	95.6	83.0	86.8	82.1	85.1
1 PERSON	88.4	91.7	90.6	93.5	76.4	82.0	74.4	79.5
2 - 3	94.5	95.7	95.4	96.4	86.8	89.7	84.2	86.9
4 - 5	94.9	95.8	95.8	96.5	89.0	90.7	84.4	85.6
6 +	92.8	94.3	93.7	94.9	87.2	90.6	86.1	88.0
1989 ANNUAL AVERAGE								
TOTAL	93.1	94.9	94.5	95.9	83.2	87.1	83.0	86.0
1 PERSON	90.0	93.0	91.9	94.6	79.1	83.8	75.5	81.3
2 - 3	94.5	95.8	95.6	96.7	85.8	89.3	84.3	87.3
4 - 5	94.5	95.5	95.7	96.4	85.7	88.8	86.9	88.5
6 +	90.5	92.0	92.7	93.8	82.4	85.8	84.9	86.5

Table 5
Percentage of Households with a Telephone by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1990 ANNUAL AVERAGE								
TOTAL	93.3	95.0	94.6	96.1	83.5	87.0	82.7	85.3
1 PERSON	90.9	93.7	92.5	95.1	80.2	84.8	76.2	80.5
2 - 3	94.7	96.0	95.8	96.9	86.0	89.0	84.2	86.7
4 - 5	93.6	95.0	95.0	96.1	84.0	87.1	84.6	86.8
6 +	87.8	89.6	90.2	91.5	78.5	81.8	80.6	81.8
1991 ANNUAL AVERAGE								
TOTAL	93.4	95.1	94.8	96.2	83.5	87.2	84.1	87.7
1 PERSON	91.1	93.9	92.8	95.3	79.8	84.9	77.7	83.3
2 - 3	94.9	96.2	96.0	97.1	85.8	88.9	86.2	88.4
4 - 5	93.7	95.0	95.1	96.1	84.3	87.4	85.1	87.5
6 +	88.8	90.4	90.5	91.8	81.0	83.9	82.0	83.3
1992 ANNUAL AVERAGE								
TOTAL	93.8	95.3	95.2	96.4	84.2	87.9	85.8	88.2
1 PERSON	91.8	94.1	93.4	95.4	81.4	86.1	81.3	85.4
2 - 3	95.1	96.3	96.2	97.2	86.1	89.2	86.3	88.9
4 - 5	93.9	95.2	95.3	96.2	84.4	88.0	87.4	89.2
6 +	89.9	91.4	91.7	92.7	82.8	85.4	85.7	86.6
1993 ANNUAL AVERAGE								
TOTAL	94.2	95.6	95.5	96.6	85.2	88.3	86.7	88.8
1 PERSON	92.3	94.6	93.9	95.8	82.5	86.8	81.9	86.4
2 - 3	95.3	96.4	96.3	97.2	87.1	89.6	87.3	89.1
4 - 5	94.5	95.6	95.9	96.7	85.7	88.3	88.4	90.2
6 +	89.9	91.5	92.0	93.0	81.2	84.9	85.7	87.1
1994 ANNUAL AVERAGE								
TOTAL	93.8	95.4	95.1	96.4	85.7	89.4	86.0	88.3
1 PERSON	91.8	94.2	93.4	95.4	82.2	86.7	82.1	85.9
2 - 3	95.0	96.2	96.0	97.0	87.9	91.1	86.6	88.9
4 - 5	94.2	95.6	95.5	96.6	86.6	89.9	88.1	89.5
6 +	89.4	91.7	91.3	93.1	82.3	86.9	83.4	85.9
1995 ANNUAL AVERAGE								
TOTAL	93.9	95.2	95.2	96.2	86.2	89.2	85.9	87.8
1 PERSON	91.6	93.4	93.2	94.6	82.1	85.9	80.6	82.7
2 - 3	95.2	96.1	96.2	96.9	88.2	90.7	86.4	88.2
4 - 5	94.5	95.6	95.6	96.5	87.9	90.5	88.0	89.8
6 +	90.4	92.3	92.0	93.6	84.4	87.8	85.2	87.1
1996 ANNUAL AVERAGE								
TOTAL	93.9	95.0	94.9	95.8	87.3	89.8	86.4	88.0
1 PERSON	91.5	93.1	92.7	94.2	83.8	86.5	80.5	83.4
2 - 3	95.2	96.1	96.1	96.7	88.9	91.5	87.5	88.9
4 - 5	94.5	95.5	95.3	96.1	88.9	91.3	87.8	89.5
6 +	89.8	91.1	91.1	92.1	84.6	87.5	85.4	86.5

Table 5
Percentage of Households with a Telephone by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1997 ANNUAL AVERAGE								
TOTAL	93.9	95.0	95.0	95.9	86.9	89.5	86.7	88.6
1 PERSON	91.4	93.1	92.8	94.3	83.3	86.3	80.1	83.7
2 - 3	95.0	96.0	95.9	96.6	89.2	91.4	87.6	89.4
4 - 5	94.8	95.8	95.9	96.6	87.9	90.5	89.1	90.3
6 +	90.3	91.7	91.9	92.9	83.0	86.2	85.7	87.6
1998 ANNUAL AVERAGE								
TOTAL	94.1	95.2	95.1	96.0	87.9	89.7	88.4	90.0
1 PERSON	91.4	92.9	92.9	94.3	82.8	85.2	81.9	84.5
2 - 3	95.4	96.2	96.1	96.8	90.5	92.1	89.5	91.0
4 - 5	94.9	95.7	95.7	96.4	89.5	90.9	89.9	91.3
6 +	91.8	92.9	92.7	93.6	87.9	89.9	88.4	89.4
1999 ANNUAL AVERAGE								
TOTAL	94.2	95.0	95.2	95.9	87.7	89.6	89.9	90.9
1 PERSON	90.9	92.4	92.6	93.8	82.1	84.9	82.7	84.4
2 - 3	95.4	96.1	96.1	96.7	90.3	91.8	90.1	91.3
4 - 5	95.6	96.2	96.4	96.9	90.6	92.0	92.5	93.4
6 +	92.2	93.4	93.4	94.4	85.9	88.5	90.3	90.8
MARCH 2000								
TOTAL	94.6	95.3	95.4	96.0	89.7	91.2	90.6	91.5
1 PERSON	92.2	93.5	93.4	94.5	85.6	88.0	86.7	88.4
2 - 3	95.5	96.1	96.1	96.6	91.3	92.6	90.2	91.4
4 - 5	95.6	96.1	96.4	96.8	91.6	92.5	92.3	92.8
6 +	93.0	93.7	93.8	94.6	90.0	90.4	91.6	92.3
JULY 2000								
TOTAL	94.4	95.2	95.2	95.9	89.2	90.6	90.5	91.7
1 PERSON	91.3	92.5	92.6	93.7	83.7	85.6	81.5	83.1
2 - 3	95.5	96.2	96.1	96.7	91.2	92.3	90.9	92.2
4 - 5	95.6	96.4	96.2	96.8	91.7	93.1	93.1	94.1
6 +	94.0	95.1	94.0	95.2	93.5	94.4	92.1	93.6
NOVEMBER 2000								
TOTAL	94.1	95.0	94.9	95.7	88.9	90.3	90.4	91.5
1 PERSON	91.0	92.5	92.3	93.7	83.9	86.0	83.8	87.2
2 - 3	95.2	95.9	95.9	96.5	90.5	91.5	90.4	91.1
4 - 5	95.5	96.1	96.1	96.6	91.8	93.2	92.5	93.2
6 +	93.3	94.3	93.5	94.3	91.1	93.4	92.6	93.0
2000 ANNUAL AVERAGE								
TOTAL	94.4	95.2	95.2	95.9	89.3	90.7	90.5	91.6
1 PERSON	91.5	92.8	92.8	94.0	84.4	86.5	84.0	86.2
2 - 3	95.4	96.1	96.0	96.6	91.0	92.1	90.5	91.6
4 - 5	95.6	96.2	96.2	96.7	91.7	92.9	92.6	93.4
6 +	93.4	94.4	93.8	94.7	91.5	92.7	92.1	93.0

Table 5
Percentage of Households with a Telephone by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
MARCH 2001								
TOTAL	94.6	95.4	95.3	96.1	89.5	91.0	91.7	92.5
1 PERSON	91.6	93.0	92.7	94.0	85.5	87.2	87.2	88.9
2 - 3	95.5	96.1	96.2	96.7	90.4	92.1	92.6	93.2
4 - 5	96.2	96.7	96.7	97.2	93.0	94.0	92.8	93.4
6 +	94.0	94.6	94.7	95.3	90.4	90.9	91.0	91.6
JULY 2001								
TOTAL	95.1	95.9	95.8	96.5	90.3	91.8	91.3	92.5
1 PERSON	92.5	93.8	93.7	94.9	85.6	87.8	84.4	86.7
2 - 3	96.0	96.5	96.5	96.9	92.7	93.7	90.2	91.5
4 - 5	96.4	97.1	97.1	97.7	91.2	92.7	95.1	96.0
6 +	94.3	95.1	94.7	95.2	92.6	95.0	92.9	93.3
NOVEMBER 2001								
TOTAL	94.9	95.8	95.6	96.5	90.3	91.5	90.8	92.2
1 PERSON	92.0	93.5	93.0	94.4	86.3	88.3	83.0	85.6
2 - 3	95.9	96.6	96.5	97.1	92.0	93.1	90.9	92.0
4 - 5	96.2	97.0	96.7	97.6	92.4	92.9	93.4	94.7
6 +	94.4	95.2	95.0	95.8	90.9	92.0	92.6	93.3
2001 ANNUAL AVERAGE								
TOTAL	94.9	95.7	95.6	96.4	90.0	91.4	91.3	92.4
1 PERSON	92.0	93.4	93.1	94.4	85.8	87.8	84.9	87.1
2 - 3	95.8	96.4	96.4	96.9	91.7	93.0	91.2	92.2
4 - 5	96.3	96.9	96.8	97.5	92.2	93.2	93.8	94.7
6 +	94.2	95.0	94.8	95.4	91.3	92.6	92.2	92.7
MARCH 2002								
TOTAL	95.5	96.3	96.3	97.0	90.8	92.1	91.8	92.9
1 PERSON	93.0	94.2	94.3	95.3	86.3	88.2	87.2	88.5
2 - 3	96.4	97.1	97.1	97.6	92.5	93.3	91.7	92.8
4 - 5	96.7	97.3	97.1	97.7	93.3	94.4	93.6	94.6
6 +	95.3	96.1	95.6	96.2	93.8	95.0	93.1	93.9
JULY 2002								
TOTAL	95.1	96.0	96.0	96.7	89.9	91.6	90.7	92.0
1 PERSON	92.5	93.8	93.7	95.0	85.7	87.6	84.9	86.3
2 - 3	96.1	96.7	96.8	97.3	91.4	93.0	90.6	92.1
4 - 5	96.4	97.2	97.0	97.6	92.9	94.6	93.3	94.2
6 +	94.3	95.3	94.7	95.6	90.2	92.3	91.3	93.1
NOVEMBER 2002								
TOTAL	95.3	96.2	96.2	96.9	89.7	91.2	92.7	93.7
1 PERSON	92.7	93.9	94.0	95.2	85.2	86.7	87.9	89.7
2 - 3	96.2	96.9	96.9	97.5	91.4	93.1	92.3	93.2
4 - 5	96.7	97.3	97.3	97.8	92.2	93.2	94.6	95.6
6 +	95.2	95.8	96.0	96.4	92.3	92.9	94.8	95.4

Table 5
Percentage of Households with a Telephone by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
2002 ANNUAL AVERAGE								
TOTAL	95.3	96.2	96.2	96.9	90.1	91.6	91.7	92.9
1 PERSON	92.7	94.0	94.0	95.2	85.7	87.5	86.7	88.2
2 - 3	96.2	96.9	96.9	97.5	91.8	93.1	91.5	92.7
4 - 5	96.6	97.3	97.1	97.7	92.8	94.1	93.8	94.8
6 +	94.9	95.7	95.4	96.1	92.1	93.4	93.1	94.1
MARCH 2003								
TOTAL	95.5	96.3	96.2	96.9	91.0	92.1	92.3	93.2
1 PERSON	92.6	93.8	93.7	94.9	86.4	87.7	84.5	87.0
2 - 3	96.6	97.2	97.2	97.7	92.7	93.7	93.1	93.7
4 - 5	97.0	97.4	97.4	97.8	93.9	94.6	95.0	95.3
6 +	94.2	95.2	94.5	95.4	92.5	94.1	91.8	93.7

Table 6
Percentage of Households with a Telephone by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 1983								
TOTAL HOUSEHOLDS	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
16-24 YRS OLD	76.6	84.1	80.2	86.2	49.9	68.2	64.9	71.9
25-54 YRS OLD	91.5	93.7	93.4	95.2	78.7	83.3	81.8	85.6
55-59 YRS OLD	95.0	96.1	96.1	97.0	86.3	88.5	89.3	89.3
60-64 YRS OLD	95.5	96.4	96.4	97.2	89.5	90.7	87.3	90.2
65-69 YRS OLD	95.5	96.2	96.5	97.0	87.2	89.0	90.7	90.7
70-99 YRS OLD	95.4	96.5	96.0	97.0	90.1	92.3	85.5	89.1
1984 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
16-24 YRS OLD	77.0	83.6	79.6	85.4	58.2	70.8	60.9	69.2
25-54 YRS OLD	91.7	93.7	93.4	95.1	79.6	84.1	83.1	85.7
55-59 YRS OLD	94.9	96.1	96.1	97.1	86.6	89.2	87.1	90.1
60-64 YRS OLD	94.9	96.0	96.0	97.0	86.6	88.8	87.1	89.1
65-69 YRS OLD	96.2	96.8	97.1	97.6	87.9	89.9	90.2	91.5
70-99 YRS OLD	95.3	96.5	96.0	97.1	88.2	90.9	84.4	87.6
1985 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
16-24 YRS OLD	77.9	83.8	80.3	85.8	60.0	69.4	64.8	70.8
25-54 YRS OLD	91.9	93.9	93.5	95.2	80.7	85.0	82.5	85.2
55-59 YRS OLD	94.9	96.0	95.8	96.8	87.8	90.0	87.4	89.2
60-64 YRS OLD	94.9	95.9	95.8	96.5	88.4	90.2	89.7	91.3
65-69 YRS OLD	95.9	96.8	96.8	97.5	88.2	90.9	89.1	91.7
70-99 YRS OLD	95.5	96.6	96.2	97.3	89.1	90.7	87.6	90.9
1986 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
16-24 YRS OLD	79.0	84.4	81.5	85.9	59.8	72.2	63.4	67.4
25-54 YRS OLD	92.2	94.0	93.8	95.3	81.1	85.2	82.9	85.5
55-59 YRS OLD	95.2	96.3	96.1	97.0	88.0	91.3	87.6	90.4
60-64 YRS OLD	95.4	96.2	96.2	97.0	88.9	90.4	89.1	90.3
65-69 YRS OLD	95.8	96.7	96.7	97.4	88.4	90.6	90.4	91.9
70-99 YRS OLD	96.0	97.0	96.5	97.4	91.3	92.9	87.5	89.8
1987 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	92.4	94.2	93.8	95.4	81.8	85.9	83.0	85.4
16-24 YRS OLD	78.9	84.4	81.4	86.1	61.8	72.3	65.2	70.8
25-54 YRS OLD	92.3	94.2	93.9	95.4	81.4	85.5	84.4	86.5
55-59 YRS OLD	95.2	96.2	96.4	97.2	87.0	89.6	89.1	90.7
60-64 YRS OLD	95.7	96.4	96.6	97.3	88.0	90.2	90.9	92.0
65-69 YRS OLD	95.9	96.7	97.0	97.5	87.1	89.3	88.8	88.8
70-99 YRS OLD	96.0	97.0	96.5	97.5	91.9	93.0	91.6	93.1
1988 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	92.7	94.5	94.1	95.6	83.0	86.8	82.1	85.1
16-24 YRS OLD	80.2	85.1	82.3	86.8	65.6	73.5	64.0	70.9
25-54 YRS OLD	92.6	94.4	94.1	95.6	82.2	86.3	83.5	86.1
55-59 YRS OLD	95.1	96.4	96.1	97.2	88.3	91.0	88.5	89.9
60-64 YRS OLD	95.3	96.2	96.3	97.0	87.6	89.9	87.3	90.0
65-69 YRS OLD	96.4	97.1	97.2	97.7	89.6	92.0	89.6	91.2
70-99 YRS OLD	96.2	97.5	96.7	97.9	92.3	93.9	92.2	94.3

Table 6
Percentage of Households with a Telephone by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1989 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.1	94.9	94.5	95.9	83.2	87.1	83.0	86.0
16-24 YRS OLD	80.5	85.9	82.9	87.7	65.3	75.2	64.8	72.3
25-54 YRS OLD	92.7	94.6	94.3	95.8	82.2	86.4	83.6	86.5
55-59 YRS OLD	95.4	96.5	96.4	97.4	88.7	90.7	90.1	91.2
60-64 YRS OLD	95.7	96.7	96.6	97.3	89.2	91.6	89.8	90.0
65-69 YRS OLD	96.3	97.0	97.1	97.7	90.3	91.9	88.8	91.0
70-99 YRS OLD	96.4	97.4	97.1	97.9	91.1	92.6	89.8	92.0
1990 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.3	95.0	94.6	96.1	83.5	87.0	82.7	85.3
16-24 YRS OLD	81.2	86.5	83.6	88.2	66.4	75.3	67.8	73.5
25-54 YRS OLD	92.6	94.5	94.1	95.7	82.4	86.1	82.0	84.6
55-59 YRS OLD	95.4	96.4	96.5	97.4	87.3	89.6	89.9	90.7
60-64 YRS OLD	96.2	96.9	97.1	97.6	89.7	91.6	90.6	91.1
65-69 YRS OLD	96.3	97.1	97.0	97.8	90.7	91.7	90.7	92.5
70-99 YRS OLD	96.9	97.8	97.4	98.3	91.9	93.3	93.2	94.1
1991 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.4	95.1	94.8	96.2	83.5	87.2	84.1	86.7
16-24 YRS OLD	81.0	86.1	83.4	88.0	65.7	74.5	68.5	73.9
25-54 YRS OLD	92.7	94.6	94.3	95.8	82.3	86.3	84.1	86.7
55-59 YRS OLD	95.5	96.7	96.5	97.5	88.0	90.9	89.8	90.5
60-64 YRS OLD	95.9	96.9	96.9	97.6	88.5	90.8	88.3	90.4
65-69 YRS OLD	96.7	97.5	97.5	98.2	89.8	91.8	92.9	94.0
70-99 YRS OLD	97.3	98.1	97.8	98.6	92.8	93.5	92.1	94.0
1992 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.8	95.3	95.2	96.4	84.2	87.9	85.8	88.2
15-24 YRS OLD	82.0	87.4	85.0	89.6	64.2	74.1	72.8	80.4
25-54 YRS OLD	93.1	94.8	94.6	95.9	82.9	87.0	85.5	87.7
55-59 YRS OLD	96.0	96.8	97.0	97.5	89.6	91.9	91.5	92.3
60-64 YRS OLD	96.3	97.1	97.0	97.7	91.2	92.6	89.3	91.2
65-69 YRS OLD	96.6	97.3	97.5	98.0	89.8	92.0	92.0	92.4
70-99 YRS OLD	97.5	98.0	98.0	98.5	93.1	94.0	94.2	95.0
1993 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	94.2	95.6	95.5	96.6	85.2	88.3	86.7	88.8
15-24 YRS OLD	83.3	87.3	85.7	89.2	70.1	77.3	71.8	76.3
25-54 YRS OLD	93.5	95.1	95.0	96.3	83.5	87.0	86.4	88.7
55-59 YRS OLD	95.9	96.8	96.7	97.5	90.0	92.2	91.3	92.1
60-64 YRS OLD	97.0	97.6	97.7	98.3	91.9	93.3	92.5	93.7
65-69 YRS OLD	97.0	97.6	97.5	98.1	92.8	93.5	92.9	93.9
70-99 YRS OLD	97.6	98.2	98.0	98.6	93.2	94.1	94.7	95.4
1994 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.8	95.4	95.1	96.4	85.7	89.4	86.0	88.3
15-24 YRS OLD	84.3	89.2	86.1	90.4	74.0	83.0	71.8	77.1
25-54 YRS OLD	93.3	95.0	94.7	96.0	84.8	88.7	86.1	88.4
55-59 YRS OLD	95.6	96.6	96.3	97.2	90.7	92.9	89.4	91.1
60-64 YRS OLD	96.3	97.2	97.1	97.9	90.1	91.9	91.8	92.4
65-69 YRS OLD	96.7	97.3	97.3	97.8	91.8	93.2	93.3	93.5
70-99 YRS OLD	96.7	97.6	97.2	98.1	91.7	93.1	92.3	93.7

Table 6
Percentage of Households with a Telephone by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1995 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.9	95.2	95.2	96.2	86.2	89.2	85.9	87.8
15-24 YRS OLD	84.6	88.5	87.0	90.2	73.2	80.6	74.8	78.0
25-54 YRS OLD	93.6	94.9	95.0	96.0	85.4	88.5	86.1	88.0
55-59 YRS OLD	95.7	96.4	96.2	96.8	92.5	93.9	88.6	90.0
60-64 YRS OLD	95.8	96.5	96.3	96.9	91.7	93.4	90.0	90.9
65-69 YRS OLD	96.4	96.8	96.9	97.4	92.2	93.1	91.2	92.6
70-99 YRS OLD	96.4	97.1	97.0	97.5	91.4	92.8	90.4	92.1
1996 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.9	95.0	94.9	95.8	87.3	89.8	86.4	88.0
15-24 YRS OLD	84.9	88.4	86.8	89.6	74.5	81.2	72.9	76.4
25-54 YRS OLD	93.5	94.8	94.6	95.6	86.6	89.4	87.1	88.8
55-59 YRS OLD	95.7	96.3	96.3	96.8	91.0	92.5	90.3	90.7
60-64 YRS OLD	95.7	96.2	96.3	96.8	92.0	93.0	88.2	88.8
65-69 YRS OLD	95.8	96.3	96.4	96.8	92.5	93.3	89.5	90.4
70-99 YRS OLD	96.5	97.0	96.8	97.3	93.5	94.3	90.9	92.3
1997 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.9	95.0	95.0	95.9	86.9	89.5	86.7	88.6
15-24 YRS OLD	84.9	88.8	86.7	90.1	74.9	81.6	75.0	79.4
25-54 YRS OLD	93.6	94.8	94.7	95.7	86.3	89.0	87.1	88.9
55-59 YRS OLD	95.4	96.1	96.4	96.9	89.2	90.8	90.1	92.2
60-64 YRS OLD	96.0	96.5	96.6	97.0	92.1	92.7	90.6	91.2
65-69 YRS OLD	96.2	96.7	96.7	97.1	92.6	93.8	90.9	92.4
70-99 YRS OLD	96.2	96.7	96.6	97.1	93.0	93.7	90.3	91.3
1998 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	94.1	95.2	95.1	96.0	87.9	89.7	88.4	90.0
15-24 YRS OLD	87.0	89.8	88.4	91.0	79.9	83.8	80.0	83.5
25-54 YRS OLD	93.8	94.9	94.8	95.8	87.2	89.2	88.5	89.9
55-59 YRS OLD	95.6	96.2	96.2	96.8	91.5	92.5	91.4	92.8
60-64 YRS OLD	95.8	96.3	96.5	97.0	91.8	92.8	91.2	92.6
65-69 YRS OLD	95.7	96.3	96.5	97.0	90.2	90.7	95.1	95.8
70-99 YRS OLD	96.3	96.8	96.7	97.1	93.1	93.8	91.0	91.9
1999 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	94.2	95.0	95.2	95.9	87.7	89.6	89.9	90.9
15-24 YRS OLD	86.4	88.9	88.2	90.2	77.5	82.3	81.0	83.1
25-54 YRS OLD	94.0	94.9	95.1	95.9	87.5	89.5	90.2	91.3
55-59 YRS OLD	95.7	96.3	96.4	96.9	90.5	91.5	93.1	94.3
60-64 YRS OLD	95.7	96.2	96.4	96.8	90.9	92.0	92.2	92.8
65-69 YRS OLD	95.9	96.3	96.6	97.0	90.0	91.1	94.1	94.8
70-99 YRS OLD	95.8	96.3	96.2	96.7	92.2	92.8	92.4	93.1
MARCH 2000								
TOTAL HOUSEHOLDS	94.6	95.3	95.4	96.0	89.7	91.2	90.6	91.5
15-24 YRS OLD	88.3	90.2	89.1	91.1	84.4	86.2	82.6	84.4
25-54 YRS OLD	94.3	95.2	95.2	95.9	89.2	90.9	90.9	91.8
55-59 YRS OLD	96.1	96.6	96.5	97.0	92.7	93.1	88.1	89.2
60-64 YRS OLD	96.2	96.5	96.9	97.1	92.1	92.9	93.6	94.5
65-69 YRS OLD	96.2	96.4	96.7	96.9	92.7	93.7	97.4	97.4
70-99 YRS OLD	96.1	96.6	96.5	96.9	92.4	93.2	93.9	95.2

Table 6
Percentage of Households with a Telephone by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
JULY 2000								
TOTAL HOUSEHOLDS	94.4	95.2	95.2	95.9	89.2	90.6	90.5	91.7
15-24 YRS OLD	87.7	89.9	88.8	91.0	81.4	84.1	84.2	87.5
25-54 YRS OLD	94.3	95.2	95.1	96.0	88.9	90.5	91.2	92.4
55-59 YRS OLD	95.7	96.1	96.1	96.5	92.1	92.7	91.1	91.1
60-64 YRS OLD	96.0	96.5	96.7	97.1	91.2	91.7	91.7	93.0
65-69 YRS OLD	96.0	96.2	96.3	96.4	94.6	94.6	93.1	93.6
70-99 YRS OLD	95.7	96.0	96.1	96.4	91.4	92.0	89.3	89.5
NOVEMBER 2000								
TOTAL HOUSEHOLDS	94.1	95.0	94.9	95.7	88.9	90.3	90.4	91.5
15-24 YRS OLD	87.4	90.1	89.2	91.8	77.7	82.0	78.9	81.4
25-54 YRS OLD	94.1	95.0	94.9	95.7	89.5	90.8	91.1	92.2
55-59 YRS OLD	95.5	96.1	96.1	96.7	90.5	91.7	94.0	95.6
60-64 YRS OLD	95.2	95.6	95.8	96.0	90.2	91.5	91.6	92.1
65-69 YRS OLD	95.3	95.6	95.9	96.2	91.0	91.4	93.1	93.1
70-99 YRS OLD	95.4	95.8	95.8	96.3	91.0	92.1	93.0	93.5
2000 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	94.4	95.2	95.2	95.9	89.3	90.7	90.5	91.6
15-24 YRS OLD	87.8	90.1	89.0	91.3	81.2	84.1	81.9	84.4
25-54 YRS OLD	94.2	95.1	95.1	95.9	89.2	90.7	91.1	92.1
55-59 YRS OLD	95.8	96.3	96.2	96.7	91.8	92.5	91.1	92.0
60-64 YRS OLD	95.8	96.2	96.5	96.7	91.2	92.0	92.3	93.2
65-69 YRS OLD	95.8	96.1	96.3	96.5	92.8	93.2	94.5	94.7
70-99 YRS OLD	95.7	96.1	96.1	96.5	91.6	92.4	92.1	92.7
MARCH 2001								
TOTAL HOUSEHOLDS	94.6	95.4	95.3	96.1	89.5	91.0	91.7	92.5
15-24 YRS OLD	88.6	90.9	89.3	91.4	84.7	88.0	84.1	85.6
25-54 YRS OLD	94.4	95.2	95.3	96.0	88.9	90.5	92.0	92.7
55-59 YRS OLD	96.4	96.9	96.7	97.2	93.5	94.3	96.6	98.1
60-64 YRS OLD	95.9	96.4	96.6	96.9	91.1	92.8	96.4	96.4
65-69 YRS OLD	96.1	96.5	96.6	96.9	92.8	93.4	93.3	94.0
70-99 YRS OLD	95.7	96.2	96.2	96.7	92.4	93.2	91.6	91.7
JULY 2001								
TOTAL HOUSEHOLDS	95.1	95.9	95.8	96.5	90.3	91.8	91.3	92.5
15-24 YRS OLD	90.1	91.8	90.2	91.8	89.4	91.5	86.1	87.9
25-54 YRS OLD	94.8	95.7	95.7	96.4	89.1	90.9	91.5	92.8
55-59 YRS OLD	96.4	96.9	96.9	97.4	92.5	93.4	93.3	94.4
60-64 YRS OLD	96.7	96.9	97.0	97.1	95.0	95.7	94.0	94.8
65-69 YRS OLD	97.1	97.5	97.7	98.0	94.1	94.9	96.1	96.1
70-99 YRS OLD	96.5	96.9	96.9	97.3	92.8	93.4	90.3	91.0
NOVEMBER 2001								
TOTAL HOUSEHOLDS	94.9	95.8	95.6	96.5	90.3	91.5	90.8	92.2
15-24 YRS OLD	87.8	90.2	88.7	91.2	82.8	84.8	80.2	83.2
25-54 YRS OLD	94.8	95.8	95.5	96.5	90.3	91.5	91.8	93.1
55-59 YRS OLD	96.3	96.8	96.7	97.1	93.4	95.2	89.9	90.4
60-64 YRS OLD	96.0	96.5	96.5	96.9	92.9	93.7	92.8	93.7
65-69 YRS OLD	95.9	96.4	96.9	97.3	89.0	89.8	92.9	92.9
70-99 YRS OLD	96.7	97.2	97.0	97.6	94.3	94.6	93.8	95.2

Table 6
Percentage of Households with a Telephone by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
2001 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	94.9	95.7	95.6	96.4	90.0	91.4	91.3	92.4
15-24 YRS OLD	88.8	91.0	89.4	91.5	85.6	88.1	83.5	85.6
25-54 YRS OLD	94.7	95.6	95.5	96.3	89.4	91.0	91.8	92.9
55-59 YRS OLD	96.4	96.9	96.8	97.2	93.1	94.3	93.3	94.3
60-64 YRS OLD	96.2	96.6	96.7	97.0	93.0	94.1	94.4	95.0
65-69 YRS OLD	96.4	96.8	97.1	97.4	92.0	92.7	94.1	94.3
70-99 YRS OLD	96.3	96.8	96.7	97.2	93.2	93.7	91.9	92.6
MARCH 2002								
TOTAL HOUSEHOLDS	95.5	96.3	96.3	97.0	90.8	92.1	91.8	92.9
15-24 YRS OLD	89.8	92.0	91.4	93.7	82.3	84.7	88.8	91.1
25-54 YRS OLD	95.2	96.0	96.0	96.7	90.3	91.6	91.7	92.8
55-59 YRS OLD	97.0	97.7	97.4	98.1	94.5	95.4	94.4	95.5
60-64 YRS OLD	96.8	97.2	97.1	97.6	95.0	95.3	92.3	93.0
65-69 YRS OLD	97.8	97.9	97.9	98.0	96.6	96.8	91.6	91.6
70-99 YRS OLD	97.1	97.5	97.6	97.9	94.3	95.2	95.0	95.6
JULY 2002								
TOTAL HOUSEHOLDS	95.1	96.0	96.0	96.7	89.9	91.6	90.7	92.0
15-24 YRS OLD	87.2	89.8	88.0	90.4	83.1	87.0	80.0	82.5
25-54 YRS OLD	94.8	95.8	95.8	96.6	89.6	91.4	91.6	92.9
55-59 YRS OLD	96.6	97.0	97.3	97.6	90.8	91.6	91.2	92.2
60-64 YRS OLD	96.8	97.4	97.2	97.7	94.5	95.8	89.2	90.2
65-69 YRS OLD	97.5	97.9	98.1	98.3	93.9	94.7	96.9	96.9
70-99 YRS OLD	97.0	97.4	97.5	97.8	92.9	93.8	93.5	93.8
NOVEMBER 2002								
TOTAL HOUSEHOLDS	95.3	96.2	96.2	96.9	89.7	91.2	92.7	93.7
15-24 YRS OLD	88.4	91.1	89.0	91.5	84.8	88.5	83.9	86.5
25-54 YRS OLD	95.1	95.9	96.0	96.7	89.0	90.4	92.8	93.9
55-59 YRS OLD	96.8	97.4	97.5	98.0	91.2	92.6	96.0	96.0
60-64 YRS OLD	97.0	97.5	97.4	97.9	94.8	95.2	97.4	97.4
65-69 YRS OLD	97.2	97.5	98.0	98.1	92.3	94.3	96.7	96.7
70-99 YRS OLD	97.4	97.8	97.9	98.3	93.8	94.1	96.2	96.6
2002 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	95.3	96.2	96.2	96.9	90.1	91.6	91.7	92.9
15-24 YRS OLD	88.5	91.0	89.5	91.9	83.4	86.7	84.2	86.7
25-54 YRS OLD	95.0	95.9	95.9	96.7	89.6	91.1	92.0	93.2
55-59 YRS OLD	96.8	97.4	97.4	97.9	92.2	93.2	93.9	94.6
60-64 YRS OLD	96.9	97.4	97.2	97.7	94.8	95.4	93.0	93.5
65-69 YRS OLD	97.5	97.8	98.0	98.1	94.3	95.3	95.1	95.1
70-99 YRS OLD	97.2	97.6	97.7	98.0	93.7	94.4	94.9	95.3
MARCH 2003								
TOTAL HOUSEHOLDS	95.5	96.3	96.2	96.9	91.0	92.1	92.3	93.2
15-24 YRS OLD	90.4	92.4	91.4	93.2	87.6	90.1	88.1	89.8
25-54 YRS OLD	95.1	95.9	95.9	96.6	90.2	91.4	92.6	93.5
55-59 YRS OLD	96.9	97.4	97.3	97.7	93.6	94.6	93.3	93.7
60-64 YRS OLD	97.3	97.6	97.9	98.2	92.7	93.1	93.7	94.1
65-69 YRS OLD	97.0	97.4	97.7	98.0	92.3	92.3	94.2	94.2
70-99 YRS OLD	97.2	97.6	97.5	97.8	95.0	95.2	92.0	93.8

Table 7
Percentage of Adults with a Telephone by Labor Force Status

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 1983								
TOTAL CNP	92.8	94.5	94.1	95.6	82.7	86.6	83.4	86.5
EMPLOYED	94.1	95.9	95.0	96.6	85.7	89.8	86.3	89.6
UNEMPLOYED	82.5	86.5	84.8	88.1	74.6	81.2	76.6	79.9
NOT IN LABOR FORCE	92.1	93.4	93.8	94.9	80.8	83.7	80.4	83.0
1984 ANNUAL AVERAGE								
TOTAL CNP	92.8	94.5	94.1	95.5	82.9	86.7	83.0	85.6
EMPLOYED	94.0	95.7	95.0	96.4	85.9	89.8	85.7	88.3
UNEMPLOYED	81.7	85.3	84.0	87.0	74.7	80.2	74.0	77.4
NOT IN LABOR FORCE	92.1	93.5	93.8	95.0	80.7	83.9	80.3	82.8
1985 ANNUAL AVERAGE								
TOTAL CNP	93.0	94.6	94.2	95.6	84.1	87.4	83.5	85.8
EMPLOYED	94.2	95.8	95.0	96.5	87.3	90.4	85.1	87.5
UNEMPLOYED	82.3	85.8	84.2	87.3	76.3	81.1	73.8	76.9
NOT IN LABOR FORCE	92.2	93.6	93.8	94.9	81.5	84.5	82.6	84.6
1986 ANNUAL AVERAGE								
TOTAL CNP	93.4	94.8	94.6	95.8	84.6	88.1	83.3	85.4
EMPLOYED	94.7	96.1	95.5	96.6	87.7	91.1	85.3	87.4
UNEMPLOYED	82.3	86.0	84.5	87.6	74.8	80.7	75.3	78.2
NOT IN LABOR FORCE	92.6	93.9	94.1	95.1	82.3	85.4	81.4	83.4
1987 ANNUAL AVERAGE								
TOTAL CNP	93.5	94.9	94.7	95.9	84.7	88.1	84.5	86.4
EMPLOYED	94.6	96.1	95.4	96.7	87.9	91.0	86.3	88.3
UNEMPLOYED	82.7	86.1	85.3	88.2	74.0	79.3	77.0	79.6
NOT IN LABOR FORCE	92.7	93.9	94.2	95.2	82.2	85.5	82.5	84.1
1988 ANNUAL AVERAGE								
TOTAL CNP	93.8	95.2	94.9	96.1	85.6	88.7	83.6	86.1
EMPLOYED	94.9	96.2	95.6	96.8	88.5	91.5	85.4	87.7
UNEMPLOYED	83.3	86.8	85.9	88.9	75.4	80.5	76.7	80.3
NOT IN LABOR FORCE	92.8	94.2	94.3	95.5	83.1	86.0	81.5	84.0
1989 ANNUAL AVERAGE								
TOTAL CNP	94.1	95.5	95.3	96.4	85.8	89.0	84.7	87.0
EMPLOYED	95.2	96.5	96.0	97.1	88.8	91.7	86.6	89.0
UNEMPLOYED	83.9	87.1	86.2	88.8	77.0	82.5	75.1	78.6
NOT IN LABOR FORCE	93.1	94.4	94.7	95.7	82.8	85.9	82.6	84.6
1990 ANNUAL AVERAGE								
TOTAL CNP	94.2	95.5	95.3	96.5	86.1	88.8	84.5	86.6
EMPLOYED	95.3	96.6	96.0	97.2	89.4	91.8	86.3	88.4
UNEMPLOYED	85.0	88.0	87.9	90.4	75.3	80.0	77.0	80.4
NOT IN LABOR FORCE	93.0	94.3	94.6	95.6	83.2	85.8	82.4	84.1

Table 7
Percentage of Adults with a Telephone by Labor Force Status

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1991 ANNUAL AVERAGE								
TOTAL CNP	94.3	95.7	95.5	96.6	86.3	89.1	85.5	87.7
EMPLOYED	95.6	96.8	96.3	97.3	89.8	92.4	87.5	89.6
UNEMPLOYED	86.4	89.5	88.3	91.0	78.9	84.1	78.2	81.6
NOT IN LABOR FORCE	93.1	94.4	94.7	95.8	82.6	85.3	83.5	85.4
1992 ANNUAL AVERAGE								
TOTAL CNP	94.7	95.9	95.8	96.8	86.9	89.8	87.8	89.7
EMPLOYED	95.8	97.0	96.5	97.5	90.1	92.8	89.5	91.6
UNEMPLOYED	88.1	90.3	90.0	91.8	81.2	85.0	83.4	85.8
NOT IN LABOR FORCE	93.6	94.8	95.2	96.1	83.6	86.5	85.8	87.4
1993 ANNUAL AVERAGE								
TOTAL CNP	95.0	96.1	96.0	97.0	87.5	90.0	88.2	89.9
EMPLOYED	96.1	97.1	96.8	97.6	90.6	92.8	89.7	91.5
UNEMPLOYED	88.6	90.6	90.7	92.3	80.9	84.7	85.0	87.1
NOT IN LABOR FORCE	93.8	94.9	95.3	96.2	84.5	87.0	86.1	87.6
1994 ANNUAL AVERAGE								
TOTAL CNP	94.5	95.9	95.6	96.7	87.9	91.0	87.3	89.2
EMPLOYED	95.6	96.8	96.3	97.3	90.4	93.2	88.5	90.4
UNEMPLOYED	87.8	90.8	89.8	92.2	81.1	86.7	84.1	86.5
NOT IN LABOR FORCE	93.4	94.8	94.8	95.9	85.4	88.5	85.7	87.6
1995 ANNUAL AVERAGE								
TOTAL CNP	95.0	96.1	95.9	96.8	89.1	91.4	88.0	89.6
EMPLOYED	95.8	96.7	96.5	97.2	91.2	93.2	88.9	90.4
UNEMPLOYED	88.8	91.7	90.8	93.1	82.3	87.4	84.4	87.2
NOT IN LABOR FORCE	93.4	94.4	94.8	95.7	84.9	87.3	86.0	87.7
1996 ANNUAL AVERAGE								
TOTAL CNP	94.9	95.8	95.6	96.4	89.7	91.8	88.4	89.7
EMPLOYED	95.6	96.4	96.2	96.9	91.4	93.0	89.6	90.8
UNEMPLOYED	88.8	91.1	90.1	91.9	85.0	89.5	84.6	86.5
NOT IN LABOR FORCE	93.4	94.4	94.5	95.3	86.4	88.8	85.6	87.0
1997 ANNUAL AVERAGE								
TOTAL CNP	94.9	95.8	95.7	96.5	89.3	91.5	88.6	90.2
EMPLOYED	95.6	96.5	96.2	96.9	91.1	92.9	89.5	91.1
UNEMPLOYED	87.8	90.4	89.7	91.4	81.5	87.1	82.4	84.3
NOT IN LABOR FORCE	93.5	94.4	94.8	95.5	86.4	88.4	86.9	88.4
1998 ANNUAL AVERAGE								
TOTAL CNP	95.1	95.9	95.7	96.5	90.4	91.9	89.9	91.3
EMPLOYED	95.6	96.4	96.1	96.8	91.9	93.3	90.4	91.8
UNEMPLOYED	89.3	91.4	91.5	93.2	82.9	85.6	85.4	88.6
NOT IN LABOR FORCE	93.9	94.7	94.9	95.6	87.8	89.1	89.0	90.2

Table 7
Percentage of Adults with a Telephone by Labor Force Status

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1999 ANNUAL AVERAGE								
TOTAL CNP	95.2	95.9	95.9	96.5	90.3	91.8	91.2	92.1
EMPLOYED	95.8	96.4	96.3	96.9	91.8	93.2	91.5	92.4
UNEMPLOYED	89.6	91.2	91.6	93.0	83.2	85.4	89.1	90.2
NOT IN LABOR FORCE	94.1	94.7	95.1	95.7	87.7	89.1	90.7	91.6
MARCH 2000								
TOTAL CNP	95.2	95.9	95.9	96.4	91.2	92.3	91.8	92.5
EMPLOYED	95.8	96.4	96.2	96.8	92.8	94.0	91.8	92.5
UNEMPLOYED	89.9	91.3	91.2	92.4	85.6	88.2	89.6	91.8
NOT IN LABOR FORCE	94.6	95.2	95.5	96.0	88.9	89.9	92.1	92.6
JULY 2000								
TOTAL CNP	95.2	95.9	95.8	96.4	91.1	92.2	92.0	93.2
EMPLOYED	95.8	96.6	96.2	96.9	92.6	93.6	92.5	93.7
UNEMPLOYED	91.6	93.1	93.3	94.5	86.5	88.9	90.8	92.7
NOT IN LABOR FORCE	94.4	94.9	95.1	95.6	89.3	90.1	91.3	92.3
NOVEMBER 2000								
TOTAL CNP	94.8	95.6	95.4	96.1	90.8	91.9	91.3	92.0
EMPLOYED	95.5	96.2	95.9	96.6	92.3	93.2	91.4	92.1
UNEMPLOYED	90.1	92.1	92.1	93.5	84.6	87.9	87.4	88.0
NOT IN LABOR FORCE	94.0	94.7	94.7	95.3	89.0	90.1	91.5	92.4
2000 ANNUAL AVERAGE								
TOTAL CNP	95.1	95.8	95.7	96.3	91.0	92.1	91.7	92.6
EMPLOYED	95.7	96.4	96.1	96.8	92.6	93.6	91.9	92.8
UNEMPLOYED	90.5	92.2	92.2	93.5	85.6	88.3	89.3	90.8
NOT IN LABOR FORCE	94.3	94.9	95.1	95.6	89.1	90.0	91.6	92.4
MARCH 2001								
TOTAL CNP	95.3	95.9	95.9	96.5	90.8	92.0	92.3	92.9
EMPLOYED	95.9	96.5	96.3	96.9	92.4	93.4	92.4	92.9
UNEMPLOYED	91.9	93.3	93.7	94.5	86.0	89.3	92.3	92.6
NOT IN LABOR FORCE	94.5	95.1	95.4	95.9	88.7	89.9	92.3	92.8
JULY 2001								
TOTAL CNP	95.8	96.4	96.4	96.9	91.9	93.1	92.7	93.6
EMPLOYED	96.3	96.9	96.7	97.2	93.4	94.5	92.6	93.5
UNEMPLOYED	92.3	93.6	93.0	94.2	89.4	91.4	93.1	93.9
NOT IN LABOR FORCE	95.2	95.8	96.0	96.5	89.4	90.8	92.9	93.8
NOVEMBER 2001								
TOTAL CNP	95.6	96.4	96.2	96.9	92.0	92.9	92.1	93.3
EMPLOYED	96.2	97.0	96.6	97.4	93.4	94.1	92.4	93.6
UNEMPLOYED	92.0	93.4	92.7	94.0	90.2	91.9	89.9	91.0
NOT IN LABOR FORCE	94.9	95.7	95.6	96.4	90.0	91.1	91.7	93.0

Table 7
Percentage of Adults with a Telephone by Labor Force Status

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
2001 ANNUAL AVERAGE								
TOTAL CNP	95.6	96.2	96.2	96.8	91.6	92.7	92.4	93.3
EMPLOYED	96.1	96.8	96.5	97.2	93.1	94.0	92.5	93.3
UNEMPLOYED	92.1	93.4	93.1	94.2	88.5	90.9	91.8	92.5
NOT IN LABOR FORCE	94.9	95.5	95.7	96.3	89.4	90.6	92.3	93.2
MARCH 2002								
TOTAL CNP	96.2	96.9	96.7	97.3	92.8	93.7	92.9	93.8
EMPLOYED	96.8	97.4	97.2	97.7	94.4	95.3	93.3	94.1
UNEMPLOYED	92.2	93.3	92.8	93.8	89.4	90.7	89.7	91.2
NOT IN LABOR FORCE	95.6	96.3	96.4	97.0	90.8	91.8	92.6	93.6
JULY 2002								
TOTAL CNP	95.8	96.6	96.5	97.1	91.5	92.9	92.0	93.0
EMPLOYED	96.4	97.1	96.9	97.5	93.2	94.4	92.2	93.2
UNEMPLOYED	92.3	94.0	92.6	94.2	90.9	93.2	89.9	91.3
NOT IN LABOR FORCE	95.2	95.8	96.2	96.7	88.6	90.2	91.9	92.8
NOVEMBER 2002								
TOTAL CNP	96.1	96.8	96.8	97.4	91.7	92.9	93.9	94.6
EMPLOYED	96.8	97.4	97.2	97.8	93.7	94.7	94.2	95.0
UNEMPLOYED	91.7	93.1	93.7	94.8	84.7	87.7	89.8	90.6
NOT IN LABOR FORCE	95.4	96.1	96.4	96.9	89.7	90.9	93.9	94.5
2002 ANNUAL AVERAGE								
TOTAL CNP	96.0	96.8	96.7	97.3	92.0	93.2	92.9	93.8
EMPLOYED	96.7	97.3	97.1	97.7	93.8	94.8	93.2	94.1
UNEMPLOYED	92.1	93.5	93.0	94.3	88.3	90.5	89.8	91.0
NOT IN LABOR FORCE	95.4	96.1	96.3	96.9	89.7	91.0	92.8	93.6
MARCH 2003								
TOTAL CNP	96.2	96.8	96.7	97.3	92.5	93.4	93.2	94.0
EMPLOYED	96.7	97.3	97.1	97.7	94.1	94.9	93.7	94.3
UNEMPLOYED	92.5	93.9	93.3	94.6	89.0	90.6	89.4	91.5
NOT IN LABOR FORCE	95.7	96.3	96.5	97.0	90.7	91.7	93.1	93.8

Table 8
Critical Values for Determining Significant Differences by State

	In Unit	Available
UNITED STATES	0.4%	0.3%
ALABAMA	4.2%	4.0%
ALASKA	3.4%	2.7%
ARIZONA	2.7%	2.5%
ARKANSAS	3.6%	3.5%
CALIFORNIA	1.1%	1.0%
COLORADO	2.1%	1.9%
CONNECTICUT	2.6%	2.6%
DELAWARE	2.8%	2.4%
DISTRICT OF COLUMBIA	4.7%	4.2%
FLORIDA	1.7%	1.7%
GEORGIA	3.3%	3.1%
HAWAII	3.1%	2.6%
IDAHO	2.6%	2.5%
ILLINOIS	2.4%	2.0%
INDIANA	3.1%	2.9%
IOWA	2.8%	2.6%
KANSAS	3.0%	2.8%
KENTUCKY	3.5%	3.2%
LOUISIANA	3.5%	3.1%
MAINE	2.0%	1.7%
MARYLAND	2.9%	2.8%
MASSACHUSETTS	2.1%	1.9%
MICHIGAN	1.7%	1.6%
MINNESOTA	2.3%	2.2%
MISSISSIPPI	4.0%	3.3%
MISSOURI	3.2%	2.9%
MONTANA	2.5%	2.3%
NEBRASKA	2.2%	2.0%
NEVADA	3.6%	3.6%
NEW HAMPSHIRE	2.7%	2.4%
NEW JERSEY	2.3%	2.3%
NEW MEXICO	3.6%	3.5%
NEW YORK	1.4%	1.3%
NORTH CAROLINA	2.0%	1.8%
NORTH DAKOTA	1.9%	1.7%
OHIO	1.9%	1.7%
OKLAHOMA	3.6%	3.2%
OREGON	3.1%	2.7%
PENNSYLVANIA	1.4%	1.3%
RHODE ISLAND	3.3%	3.2%
SOUTH CAROLINA	3.6%	3.4%
SOUTH DAKOTA	4.0%	3.8%
TENNESSEE	2.9%	2.6%
TEXAS	1.8%	1.6%
UTAH	2.7%	2.5%
VERMONT	3.5%	3.0%
VIRGINIA	3.5%	3.3%
WASHINGTON	2.3%	2.1%
WEST VIRGINIA	3.3%	2.8%
WISCONSIN	2.7%	2.5%
WYOMING	2.7%	2.5%

Table 9
Critical Values for Determining Significant Differences by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
TOTAL	0.4%	0.3%	0.4%	0.3%	1.6%	1.5%	1.7%	1.6%
UNDER $5,000	3.9%	3.7%	4.4%	4.1%	7.8%	7.4%	10.2%	9.8%
$5,000 - $7,499	3.0%	2.9%	3.3%	3.1%	7.3%	7.2%	9.2%	8.5%
$7,500 - $9,999	2.4%	2.2%	2.6%	2.5%	7.3%	6.4%	8.4%	8.4%
$10,000 - $12,499	2.1%	2.0%	2.3%	2.2%	7.3%	6.7%	7.0%	6.7%
$12,500 - $14,999	2.1%	1.9%	2.2%	2.0%	6.8%	6.3%	7.4%	7.3%
$15,000 - $19,999	1.5%	1.3%	1.4%	1.2%	5.8%	5.1%	5.3%	4.9%
$20,000 - $24,999	1.2%	1.1%	1.2%	1.1%	3.7%	3.4%	5.0%	4.8%
$25,000 - $29,999	1.1%	1.0%	1.1%	1.0%	4.7%	4.3%	3.9%	3.7%
$30,000 - $34,999	1.0%	0.9%	1.0%	0.9%	5.2%	4.6%	4.6%	4.1%
$35,000 - $39,999	0.9%	0.9%	0.9%	0.9%	4.8%	4.6%	3.7%	3.6%
$40,000 - $49,999	0.7%	0.6%	0.7%	0.6%	3.0%	2.8%	4.2%	3.7%
$50,000 - $59,999	0.6%	0.6%	0.6%	0.6%	3.2%	3.2%	3.0%	2.7%
$60,000 - $74,999	0.6%	0.5%	0.6%	0.5%	4.0%	3.8%	2.1%	2.0%
$75,000 +	0.4%	0.4%	0.4%	0.4%	2.6%	2.4%	3.0%	2.8%

Table 10
Critical Values for Determining Significant Differences by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
TOTAL	0.4%	0.3%	0.4%	0.3%	1.6%	1.5%	1.7%	1.6%
1 PERSON	0.9%	0.8%	0.9%	0.8%	3.5%	3.2%	5.4%	5.2%
2 - 3	0.5%	0.4%	0.4%	0.4%	2.0%	1.9%	2.3%	2.2%
4 - 5	0.6%	0.6%	0.6%	0.5%	2.9%	2.7%	2.3%	2.1%
6 +	1.9%	1.8%	2.0%	1.9%	6.6%	6.2%	4.6%	4.5%

Table 11
Critical Values for Determining Significant Differences by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
TOTAL	0.4%	0.3%	0.4%	0.3%	1.6%	1.5%	1.7%	1.6%
15-24 YRS OLD	2.3%	2.1%	2.4%	2.2%	7.6%	6.8%	6.0%	5.9%
25-54 YRS OLD	0.5%	0.4%	0.4%	0.4%	2.0%	1.8%	1.9%	1.8%
55-59 YRS OLD	1.1%	1.0%	1.0%	1.0%	4.9%	4.5%	5.8%	5.3%
60-64 YRS OLD	1.1%	1.0%	1.1%	1.0%	4.9%	4.6%	6.3%	6.2%
65-69 YRS OLD	1.1%	1.1%	1.1%	1.1%	5.5%	5.1%	7.2%	7.2%
70-99 YRS OLD	0.7%	0.7%	0.7%	0.7%	3.6%	3.3%	5.8%	5.4%

Table 12
Critical Values for Determining Significant Differences by Labor Force Status

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
TOTAL CNP	0.3%	0.3%	0.3%	0.3%	1.4%	1.4%	1.4%	1.3%
EMPLOYED	0.3%	0.3%	0.3%	0.3%	1.5%	1.4%	1.6%	1.5%
UNEMPLOYED	2.1%	1.8%	2.1%	1.9%	5.7%	5.0%	5.8%	5.3%
NOT IN LABOR FORCE	0.5%	0.5%	0.5%	0.5%	2.2%	2.1%	2.0%	1.9%

Customer Response

Publication: Telephone Subscribership in the United States (Data Through March 2003)

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	Excellent	Good	Satisfactory	Poor	No opinion
Data accuracy	◯	◯	◯	◯	◯
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◯	◯	◯	◯	◯

4. How can this report be improved?

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To discuss this report contact Alex Belinfante at 202-418-0944		
Fax this response to	or	Mail this response to
202-418-0520		FCC/WCB/IATD Washington, DC 20554

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-2)
U.S. Telephone Subscribership-2005

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-2

Belinfante, Alexander; *Telephone Subscribership in the United States (Data Through March 2005)*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 2; Released May 2005.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 9
Company/ Alltel
Witness: David C. Blessing (DCB-2)
Date: 12/01/05

NEWS

Federal Communications Commission
445 12th Street, S.W.
Washington, D. C. 20554

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FOR IMMEDIATE RELEASE:
May 25, 2005

NEWS MEDIA CONTACT:
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Email: mark.wigfield@fcc.gov

FCC RELEASES NEW TELEPHONE SUBSCRIBERSHIP REPORT

Washington, D.C. – The Federal Communications Commission (FCC) today released its latest report on telephone subscribership levels in the United States. The report presents subscribership statistics based on the Current Population Survey (CPS) conducted by the Census Bureau in March 2005. The report also shows subscribership levels by state, income level, race, age, household size, and employment status.

Statistical Summary

In March 2005:

- The telephone subscribership penetration rate in the U.S. was 92.4%.
- The telephone penetration rate was 80.4% for households with annual incomes below $5,000, while the rate for households with incomes over $75,000 was 96.9%.
- By state, the penetration rates ranged from a low of 86.7% in Mississippi to a high of 96.9% in Utah and Washington.
- Households headed by whites had a penetration rate of 93.2%, while those headed by blacks had a rate of 87.7% and those headed by Hispanics had a rate of 88.2%.
- By age, penetration rates ranged from 85.5% for households headed by a person under 25 to 94.8% for households headed by a person between 65 and 69.
- Households with one person had a penetration rate of 89.0%, compared to a rate of 94.5% for households with four or five persons.
- The penetration rate for unemployed adults was 90.1%, while the rate for employed adults was 93.7%.

This report is updated three times a year and is available in the FCC's Reference Information Center, Courtyard Level, 445 12th Street SW, Washington, DC 20554. Call Best Copy and Printing, Inc. at (202) 488-5300 to purchase a copy. This report can also be downloaded from the FCC-State Link Internet site at http://www.fcc.gov/wcb/iatd/stats.html.

-FCC-

Wireline Competition Bureau contact: Alexander Belinfante at (202) 418-0944; TTY (202) 418-0484.

TELEPHONE SUBSCRIBERSHIP IN THE UNITED STATES

(Data through March 2005)

Alexander Belinfante

Industry Analysis and Technology Division
Wireline Competition Bureau
Federal Communications Commission

Released: May 2005

This report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street SW, Washington, DC. 20554. Call Best Copy and Printing, Inc. at (202) 488-5300 to purchase a copy. The report can also be downloaded from the **FCC-State Link** Internet site at <http://www.fcc.gov/wcb/iatd/stats.html>.

Telephone Subscribership in the United States
(Data through March 2005)

Executive Summary

This is the Federal Communications Commission's (FCC's) report on telephone subscribership in the United States, presenting subscribership statistics based on the Current Population Survey (CPS) conducted by the Census Bureau in March 2005.[1] Statistics from that survey estimated that 92.4% of all households in the United States had telephone service. The report also shows subscribership levels by state, income level, race, age, household size, and employment status.

Statistical Findings

In March 2005:

- The telephone subscribership penetration rate in the U.S. was 92.4%.
- The telephone penetration rate was 80.4% for households with annual incomes below $5,000, while the rate for households with incomes over $75,000 was 96.9%.
- By state, the penetration rates ranged from a low of 86.7% in Mississippi to a high of 96.9% in Utah and Washington.
- Households headed by whites had a penetration rate of 93.2%, while those headed by blacks had a rate of 87.7% and those headed by Hispanics had a rate of 88.2%.
- By age, penetration rates ranged from 85.5% for households headed by a person under 25 to 94.8% for households headed by a person between 65 and 69.
- Households with one person had a penetration rate of 89.0%, compared to a rate of 94.5% for households with four or five persons.
- The penetration rate for unemployed adults was 90.1%, while the rate for employed adults was 93.7%.

Background

The number and percentage of households that have telephone service represent the most fundamental measures of the extent of universal service. Continuing analysis of telephone penetration statistics allows us to examine the aggregate effects of Commission actions on households' decisions to maintain, acquire or drop telephone service. This report presents comprehensive data on telephone penetration statistics collected by the Bureau of the Census under contract with the FCC. Along with telephone penetration statistics for the United States and each of the states from November 1983 to March 2005, data are provided on penetration based on various demographic characteristics.

The most widely used measure of telephone subscribership is the percentage of households with telephone service, sometimes called a measure of telephone penetration. Prior to the 1980s, precise measurements of telephone subscribership received little attention. Traditionally, telephone penetration was measured by dividing the number of residential telephone lines by the number of households. Measures of penetration based on the number of residential lines, however, became subject to a large margin of error as more and more households added second telephone lines and more consumers acquired second homes. By 1980,

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1 The last published report was Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission, *Telephone Subscribership in the United States* (March 8, 2005).

the traditional measure of penetration (residential lines divided by the number of households) reached 96%, while the number of households reporting that they had telephones in the 1980 census was 92.9%.

Recognizing the need for more precise periodic measurements of subscribership, the Commission requested that the Census Bureau include questions on telephone availability as part of its CPS, which monitors demographic trends between the decennial censuses. This survey is a staggered panel survey in which the people residing at particular addresses are included in the survey for four consecutive months in one year and the same four months in the following year. Use of the CPS has several advantages: it is conducted every month by an independent and expert agency; the sample is large; and the questions are consistent. Thus, changes in the results can be compared over time with a reasonable degree of confidence.

Unfortunately, the results of the CPS cannot be directly compared with the penetration figures contained in the 1980, 1990, and 2000 decennial censuses. This is due to differences in sampling techniques and survey methodologies and because of differences in the context in which the questions were asked. For example, the 2000 decennial census reported 97.6% of all occupied housing units in the United States had telephone service available, whereas the CPS data showed a penetration rate of 94.6% of households for March 2000. This difference is statistically significant and appears to indicate that the CPS value may be on the low side and the decennial census value may be on the high side, with the most probable value lying somewhere in between.

The specific questions asked in the CPS are: "Does this house, apartment, or mobile home have telephone service from which you can both make and receive calls? Please include cell phones, regular phones, and any other type of telephone."[2] And, if the answer to the first question is "no," this is followed up with, "Is there a telephone elsewhere on which people in this household can be called?" If the answer to the first question is "yes," the household is counted

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2 The questions are intended to be neutral as to whether the household has wireline or wireless phones. Through November 2004, this question had been worded: "Is there a telephone in this house/apartment?" For the November 2001 survey, households were also asked which type(s) of phones they had. While the response rate was not sufficient for a complete reporting of the results of this follow-up question, 1.2% of the households indicated that they had only wireless phones. 5.9% of the households failed to answer this question. The CPS no longer asks this follow-up question on a regular basis. However, a similar question was again asked in February 2004 for a special supplement given to a portion of the sample. In that month, 4.9% of those completing the supplement indicated that they had only wireless phones. 12.5% of the households failed to complete the supplement, and when imputed responses of those households are included, the estimate of households with only wireless goes up to 6.0%. Because of the increasing number of households that have wireless only, there was some concern that some of these households may not think of their cell phones when asked if they have a telephone. Consequently, beginning in December 2004, CPS changed its telephone question to the wording given above. It is possible that some of the drop in the penetration rate between November 2004 and March 2005 is for households who had a phone, but did not have service.

as having a telephone "in unit." If the answer to either the first or second question is "yes," the household is counted as having a telephone "available." The "in unit" data are reported in all of the tables and charts in this report. The "available" data are also reported in Tables 3 through 12 and Charts 1 and 8.

Although the survey is conducted every month, not all questions are asked every month. The telephone questions are asked once every four months, in the month that a household is first included in the sample and in the month that the household re-enters the sample a year later. Since the sample is staggered, the reported information for any given month actually reflects responses over the preceding four months. Aggregated summaries of the responses are reported to the Commission, based on the surveys conducted through March, July, and November of each year.

The CPS data are based on a nationwide sample of about 50 to 60 thousand households in the 50 states and the District of Columbia. (The CPS does not cover outlying areas that are not states, such as Puerto Rico, Guam, American Samoa, the Virgin Islands, and the Northern Mariana Islands.) Because a sample is used, the estimates are subject to sampling error. For the nationwide totals, changes in telephone penetration between consecutive reports of less than 0.4% may be due to sampling error and cannot be regarded as statistically significant. As explained below, when comparing the same month in two consecutive years, changes of less than or equal to 0.3% are not statistically significant at the 95% confidence level. When comparing annual averages, changes of less than or equal to 0.2% are not statistically significant. The annual averages are the average of the three surveys of the year in question. For individual states or other subgroups of the U.S. population, the amount of sampling variability is much greater, because the sample sizes are smaller. This will require larger changes to yield statistical significance at the same confidence level.

The data in this report are not seasonally adjusted. After adjusting for the trend over time, there is an average seasonal variation of less than 0.2% among the reported months. All of the changes are below the threshold of statistical significance.

Results and Statistical Analysis

Census Bureau figures for March 2005, the most recent data available, show that the percentage of households subscribing to telephone service is 92.4%. This figure is down 1.1% from November 2004. This decrease is statistically significant.

This report includes figures showing subscribership percentages by state, by the head of the household's age and race, by household size, by income, and, for adult individuals, by labor force status. The March 2005 data show that 93.2% of adult individuals in the civilian non-institutionalized population have a telephone in their household. This figure is down 1.2% from November 2004. This decrease is statistically significant.

This report contains twelve tables and eight charts presenting penetration statistics for various geographic and demographic characteristics. The charts and the first two tables present summaries of the information. Tables 3 through 7 present more detailed information. In these tables, only the annual averages are included for the years 1984 through 2002. March, July, and November data for those years are available in previous subscribership reports or Monitoring

Reports in CC Docket Nos. 87-339 or 98-202. Tables 8 through 12 provide information necessary to determine the statistical significance of changes in the penetration rates over time.

Table 1 summarizes the telephone penetration for the United States, combining information on the number of households with the penetration rates.

Chart 1 graphically depicts the nationwide penetration rates for households over time.

Table 2 summarizes the telephone penetration rates by state, showing the rates for November 1983 and March 2005, the change between those two months, and an indication as to whether the change is statistically significant. The statistical significance of a change is determined not only by the magnitude of that change, but also by the sizes of the samples used to estimate the change.

Chart 2 depicts the states with March 2005 penetration rates (as shown in Table 2) more than 1% below the national average, within 1% of the national average, or more than 1% above the national average.

Chart 3 depicts changes in household penetration rates by state (as shown in Table 2) between the November 1983 and March 2005 rates. States with statistically significant increases or decreases are shown, along with other states with increases or decreases.

Chart 4 depicts the relationship between telephone penetration and household income, using March 2005 penetration rates for all households and for households headed by white, black, and Hispanic persons. It is based on data in Table 4.

Chart 5 depicts the relationship between telephone penetration and household size, using March 2005 penetration rates for all households and for households headed by white, black, and Hispanic persons. It is based on data in Table 5.

Chart 6 depicts the relationship between telephone penetration and the head of the household's age, using March 2005 penetration rates for all households and for households headed by white, black, and Hispanic persons. It is based on data in Table 6.

Chart 7 depicts the relationship between telephone penetration and labor force status for civilian non-institutionalized adults, using March 2005 penetration rates for all adults and for white, black, and Hispanic adults. It is based on data in Table 7.

Chart 8 graphically depicts the nationwide penetration rates for civilian non-institutionalized adults over time. It is also based on data in Table 7.

Table 3 shows the CPS responses for the United States and for each state beginning with November 1983. Because the CPS began collecting this data only in 1983, comparable values are not available prior to November 1983. For each of the surveys, the column headed "Unit" indicates the percentage of households for which there is telephone service in the housing unit. The column headed "Avail." indicates the percentage of households which have telephone service available for incoming and outgoing calls, either in the housing unit or elsewhere (such as at work or at a neighbor's home).

Table 4 shows the nationwide penetration rates for households by income and the race of the head of the household. It shows a strong relationship between income and penetration. Caution should be used in comparing these figures over time, because these income levels are not adjusted for inflation. Thus, the same nominal income level at two points in time will reflect different real incomes in terms of purchasing power.[3] Also, the income categories have changed over time due to the changing value of the dollar.

Table 5 shows the nationwide penetration rates for households by the size of the household and the race of the head of the household. It shows that penetration is higher for households of 2 to 5 people than it is for single-person households or those with 6 or more people.

Table 6 shows the nationwide penetration rates for households by the age and race of the head of the household. It shows that the penetration rate is lowest for young and non-white households.

Table 7 shows the nationwide penetration rates for all persons that are at least 15 years old in the civilian non-institutionalized population by their race and employment status. Since this table is for individual adults rather than households, the total penetration rates are different from those in the previous tables. It shows that penetration is lowest among the unemployed.

Tables 8 through 12 present the critical values at the 95% confidence level for testing the statistical significance of changes in penetration rates over time in the earlier tables. These critical values are relevant because changes less than or equal to the values shown are likely to be due to sampling error and thus cannot be regarded as demonstrating that a change in telephone penetration has occurred. In some cases, these critical values are very large because the sample sizes are very small for these subcategories, rendering the changes in estimated penetration rates unreliable. Because there is an overlap of half of the sample from year to year, but no overlap in the sample between surveys that are four months apart, annual changes are less subject to variations in sampling error. Consequently, the critical values should be multiplied by 0.8 when making a comparison for the same month in two consecutive years. When comparing the annual averages, the critical values should be multiplied by 0.5774, since these averages are based on three surveys and hence have a lower standard error. When comparing annual averages of two consecutive years, the critical values should be multiplied by .46, taking into account both of the above factors.

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3 Our publication *Telephone Penetration by Income by State* (last published March 10, 2005) makes adjustments for inflation, making comparisons over time more appropriate.

Table 1
Household Telephone Subscribership in the United States

Date	Households (millions)	Households with Telephones (millions)	Percentage with Telephones	Households without Telephones (millions)	Percentage without Telephones
November 1983	85.8	78.4	91.4%	7.4	8.6%
March 1984	86.0	78.9	91.8%	7.1	8.2%
July 1984	86.6	79.3	91.6%	7.3	8.4%
November 1984	87.4	79.9	91.4%	7.5	8.6%
March 1985	87.4	80.2	91.8%	7.2	8.2%
July 1985	88.2	81.0	91.8%	7.2	8.2%
November 1985	88.8	81.6	91.9%	7.2	8.1%
March 1986	89.0	82.1	92.2%	6.9	7.8%
July 1986	89.5	82.5	92.2%	7.0	7.8%
November 1986	89.9	83.1	92.4%	6.8	7.6%
March 1987	90.2	83.4	92.5%	6.8	7.5%
July 1987	90.7	83.7	92.3%	7.0	7.7%
November 1987	91.3	84.3	92.3%	7.0	7.7%
March 1988	91.8	85.3	92.9%	6.5	7.1%
July 1988	92.4	85.7	92.8%	6.7	7.2%
November 1988	92.6	85.7	92.5%	6.9	7.5%
March 1989	93.6	87.0	93.0%	6.6	7.0%
July 1989	93.8	87.5	93.3%	6.3	6.7%
November 1989	93.9	87.3	93.0%	6.6	7.0%
March 1990	94.2	87.9	93.3%	6.3	6.7%
July 1990	94.8	88.4	93.3%	6.4	6.7%
November 1990	94.7	88.4	93.3%	6.3	6.7%
March 1991	95.3	89.2	93.6%	6.1	6.4%
July 1991	95.5	89.1	93.3%	6.4	6.7%
November 1991	95.7	89.4	93.4%	6.3	6.6%
March 1992	96.6	90.7	93.9%	5.9	6.1%
July 1992	96.6	90.6	93.8%	6.0	6.2%
November 1992	97.0	91.0	93.8%	6.0	6.2%
March 1993	97.3	91.6	94.2%	5.7	5.8%
July 1993	97.9	92.2	94.2%	5.7	5.8%
November 1993	98.8	93.0	94.2%	5.8	5.8%
March 1994	98.1	92.1	93.9%	6.0	6.1%
July 1994	98.6	92.4	93.7%	6.2	6.3%
November 1994	99.8	93.7	93.8%	6.2	6.2%
March 1995	99.9	93.8	93.9%	6.1	6.1%
July 1995	100.0	94.0	94.0%	6.0	6.0%
November 1995	100.4	94.2	93.9%	6.2	6.1%
March 1996	100.6	94.4	93.8%	6.2	6.2%
July 1996	101.2	95.0	93.9%	6.1	6.1%
November 1996	101.3	95.1	93.9%	6.2	6.1%
March 1997	102.0	95.8	93.9%	6.2	6.1%
July 1997	102.3	96.1	93.9%	6.2	6.1%
November 1997	102.8	96.5	93.8%	6.3	6.2%
March 1998	103.4	97.4	94.1%	6.1	5.9%
July 1998	103.4	97.3	94.1%	6.1	5.9%
November 1998	104.1	98.0	94.2%	6.1	5.8%
March 1999	104.8	98.5	94.0%	6.3	6.0%
July 1999	105.1	99.2	94.4%	5.9	5.6%
November 1999	105.4	99.1	94.1%	6.3	5.9%
March 2000	105.3	99.6	94.6%	5.7	5.4%
July 2000	105.8	99.8	94.4%	5.9	5.6%
November 2000	106.5	100.2	94.1%	6.3	5.9%
March 2001	107.0	101.1	94.6%	5.8	5.4%
July 2001	106.9	101.7	95.1%	5.2	4.9%
November 2001	107.7	102.2	94.9%	5.5	5.1%
March 2002	108.3	103.4	95.5%	4.8	4.5%
July 2002	108.5	103.2	95.1%	5.3	4.9%
November 2002	109.0	104.0	95.3%	5.1	4.7%
March 2003	112.1	107.1	95.5%	5.0	4.5%
July 2003	112.1	106.8	95.2%	5.3	4.8%
November 2003	113.1	107.1	94.7%	6.0	5.3%
March 2004	112.9	106.4	94.2%	6.5	5.8%
July 2004	113.5	106.5	93.8%	7.1	6.2%
November 2004	113.8	106.4	93.5%	7.4	6.5%
March 2005	114.5	105.8	92.4%	8.7	7.6%

Note: Details may not appear to add to totals due to rounding.

Chart 1

Telephone Penetration

Households

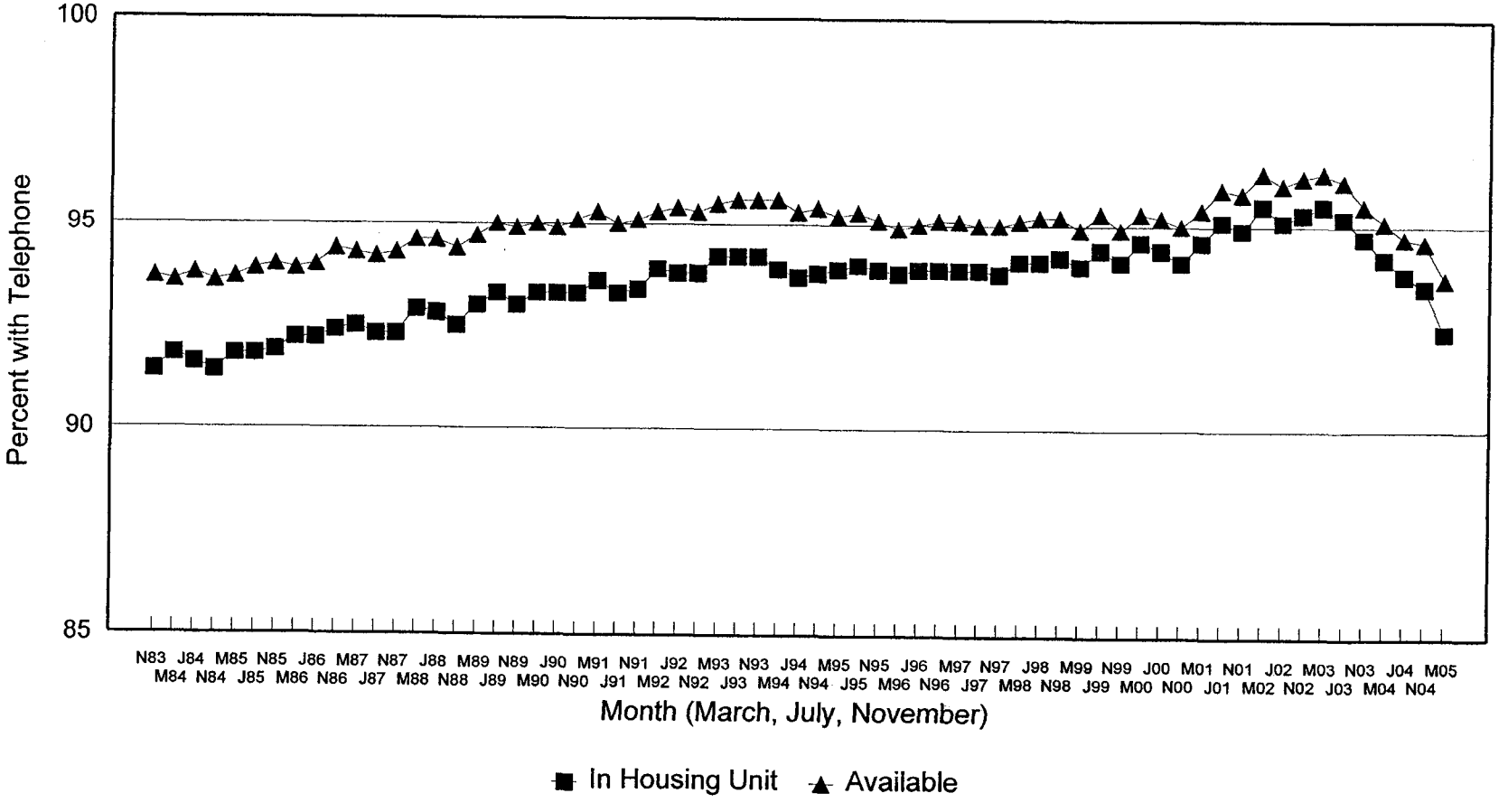


Table 2
Telephone Penetration by State
(Percentage of Households with Telephone Service)

State	November 1983	March 2005	Change	
Alabama	87.9 %	90.6 %	2.7 %	
Alaska	83.8	95.2	11.4	*
Arizona	88.8	93.0	4.3	*
Arkansas	88.2	87.7	-0.5	
California	91.7	94.5	2.8	*
Colorado	94.4	95.0	0.6	
Connecticut	95.5	92.7	-2.8	†
Delaware	95.0	90.7	-4.3	†
District of Columbia	94.7	91.2	-3.5	
Florida	85.5	91.6	6.1	*
Georgia	88.9	90.4	1.5	
Hawaii	94.6	95.2	0.6	
Idaho	89.5	94.8	5.3	*
Illinois	95.0	89.1	-5.9	†
Indiana	90.3	91.4	1.1	
Iowa	95.4	96.3	0.9	
Kansas	94.9	93.5	-1.4	
Kentucky	86.9	90.1	3.2	
Louisiana	88.9	89.8	0.9	
Maine	90.7	95.4	4.7	*
Maryland	96.3	93.5	-2.8	
Massachusetts	94.3	93.9	-0.4	
Michigan	93.8	91.5	-2.3	†
Minnesota	96.4	95.6	-0.8	
Mississippi	82.4	86.7	4.3	*
Missouri	92.1	92.1	0.0	
Montana	92.8	93.3	0.5	
Nebraska	94.0	94.5	0.5	
Nevada	89.4	90.0	0.6	
New Hampshire	95.0	94.4	-0.5	
New Jersey	94.1	93.9	-0.2	
New Mexico	85.3	92.2	6.9	*
New York	90.8	91.3	0.5	
North Carolina	89.3	91.4	2.1	*
North Dakota	95.1	95.2	0.1	
Ohio	92.2	93.3	1.1	
Oklahoma	91.5	90.3	-1.2	
Oregon	91.2	94.5	3.3	*
Pennsylvania	95.1	94.3	-0.8	
Rhode Island	93.3	93.9	0.6	
South Carolina	81.8	93.2	11.4	*
South Dakota	92.7	94.7	2.0	
Tennessee	87.6	90.5	2.9	
Texas	89.0	90.2	1.2	
Utah	90.3	96.9	6.6	*
Vermont	92.7	96.7	4.0	*
Virginia	93.1	91.2	-1.9	
Washington	92.5	96.9	4.5	*
West Virginia	88.1	91.5	3.4	*
Wisconsin	94.8	94.2	-0.6	
Wyoming	89.7	94.0	4.3	*
Total United States	91.4	92.4	1.0	*

* Increase is statistically significant at the 95% confidence level.
† Decrease is statistically significant at the 95% confidence level.
Differences may not appear to equal changes due to rounding.

Chart 2

March 2005 Telephone Penetration

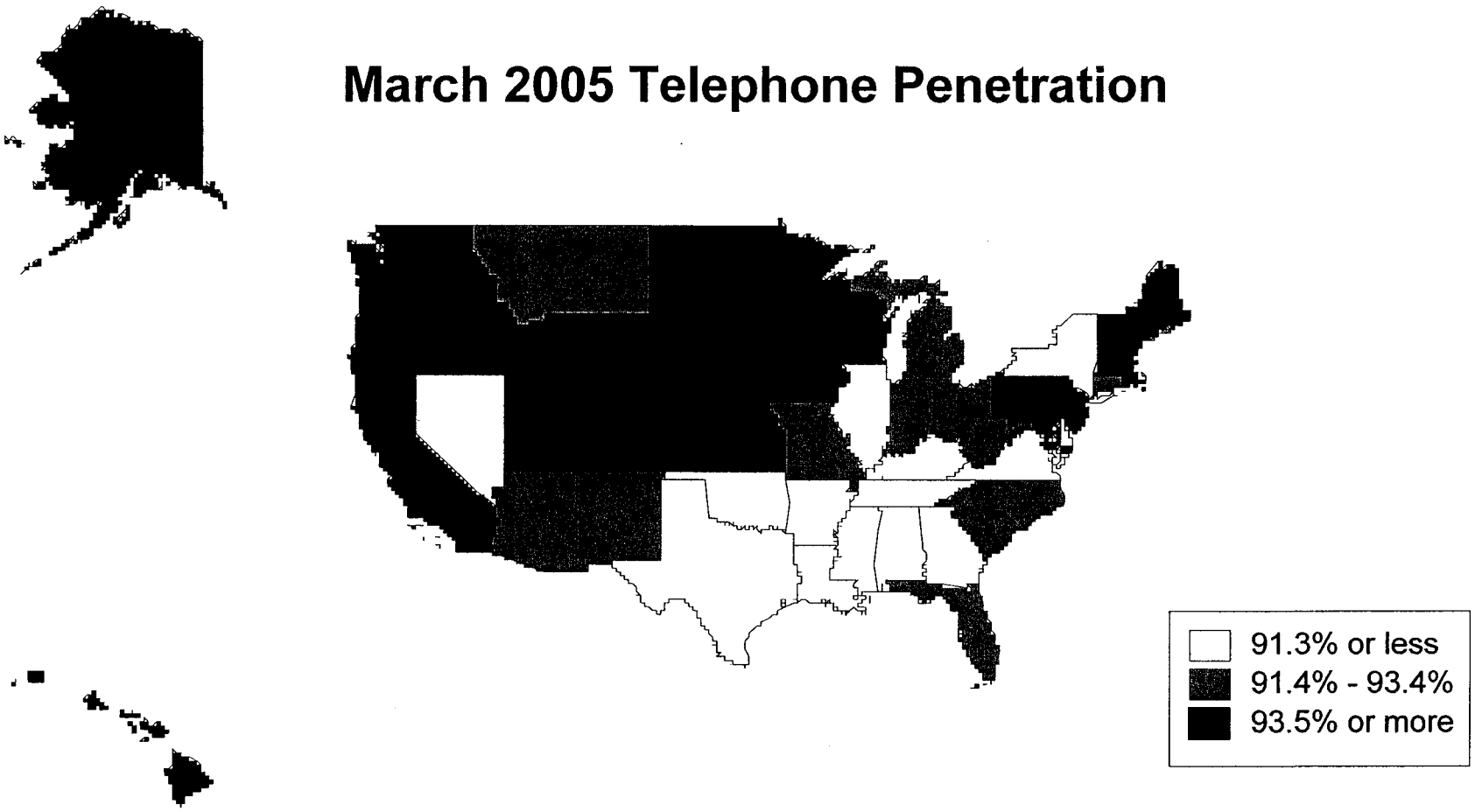


Chart 3

11/83 - 3/05 Penetration Changes

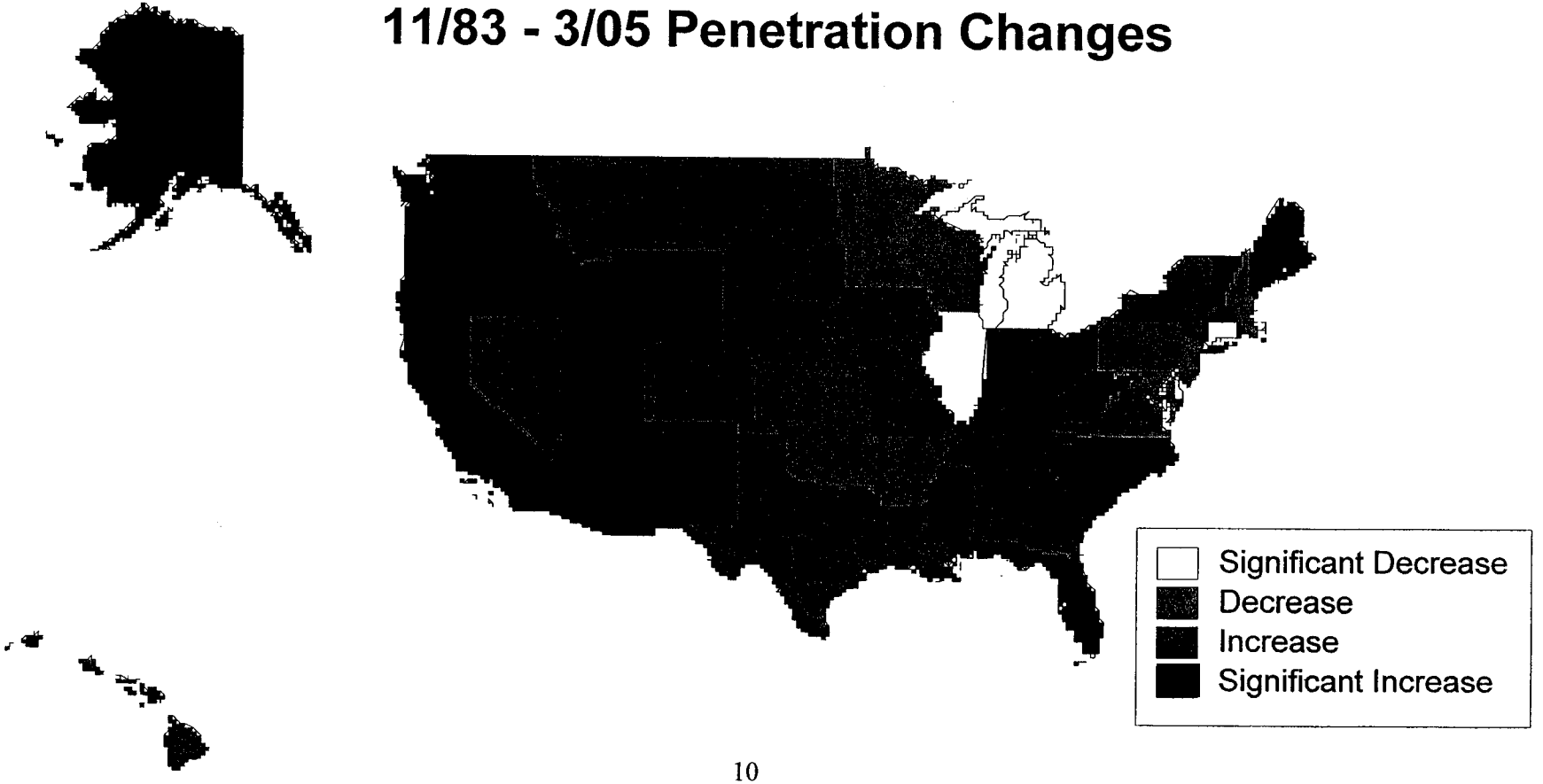


Chart 4

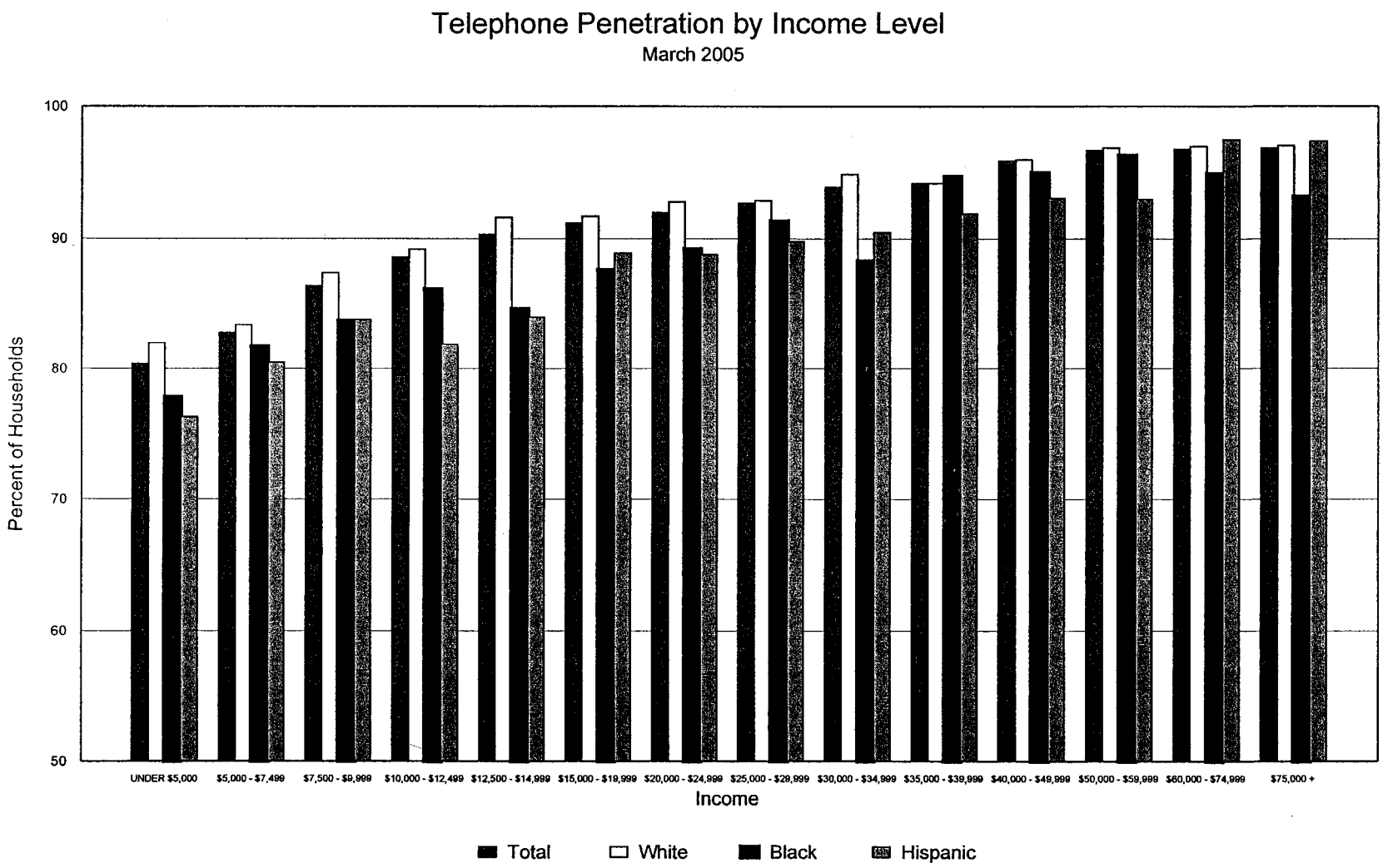

Telephone Penetration by Income Level
March 2005
Percent of Households
100
90
80
70
60
50
UNDER $5,000
$5,000 - $7,499
$7,500 - $9,999
$10,000 - $12,499
$12,500 - $14,999
$15,000 - $19,999
$20,000 - $24,999
$25,000 - $29,999
$30,000 - $34,999
$35,000 - $39,999
$40,000 - $49,999
$50,000 - $59,999
$60,000 - $74,999
$75,000 +
Income
Total
White
Black
Hispanic

Chart 5

Telephone Penetration by Household Size

March 2005

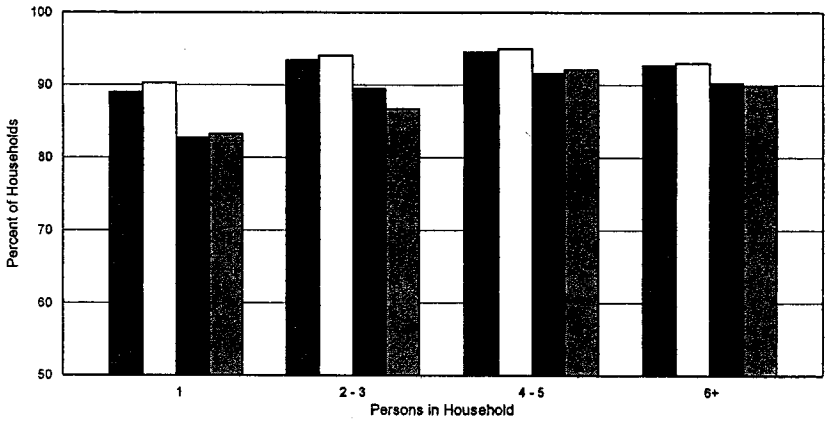


Chart 6

Telephone Penetration by Householder's Age

March 2005

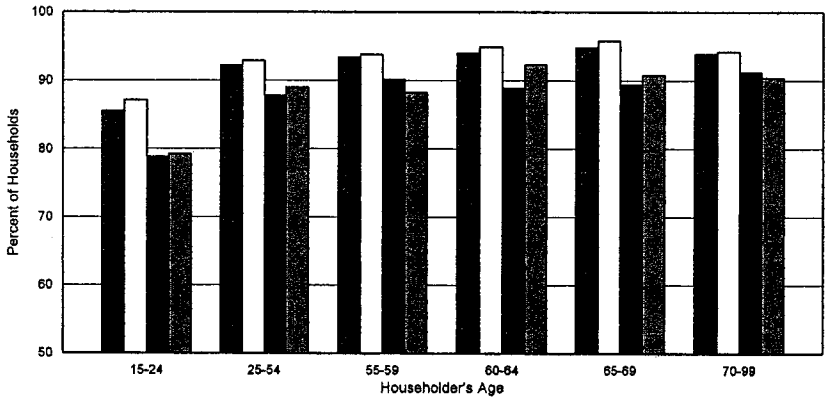


Chart 7

Telephone Penetration by Labor Force Status

March 2005

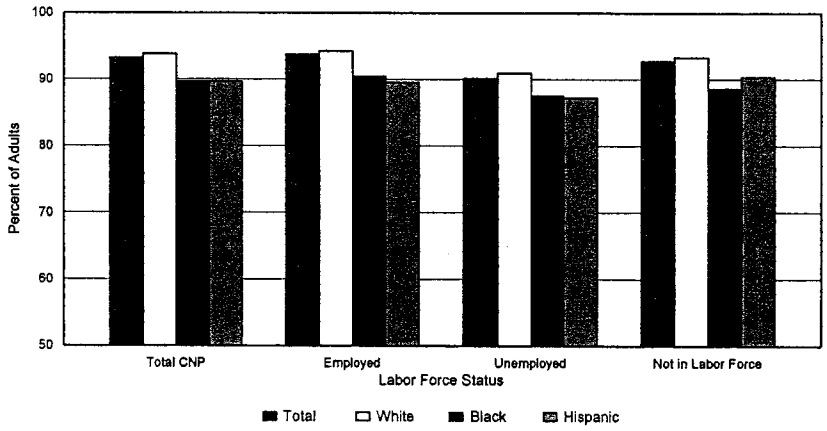


Chart 8

Telephone Penetration

Civilian Noninstitutionalized Adults

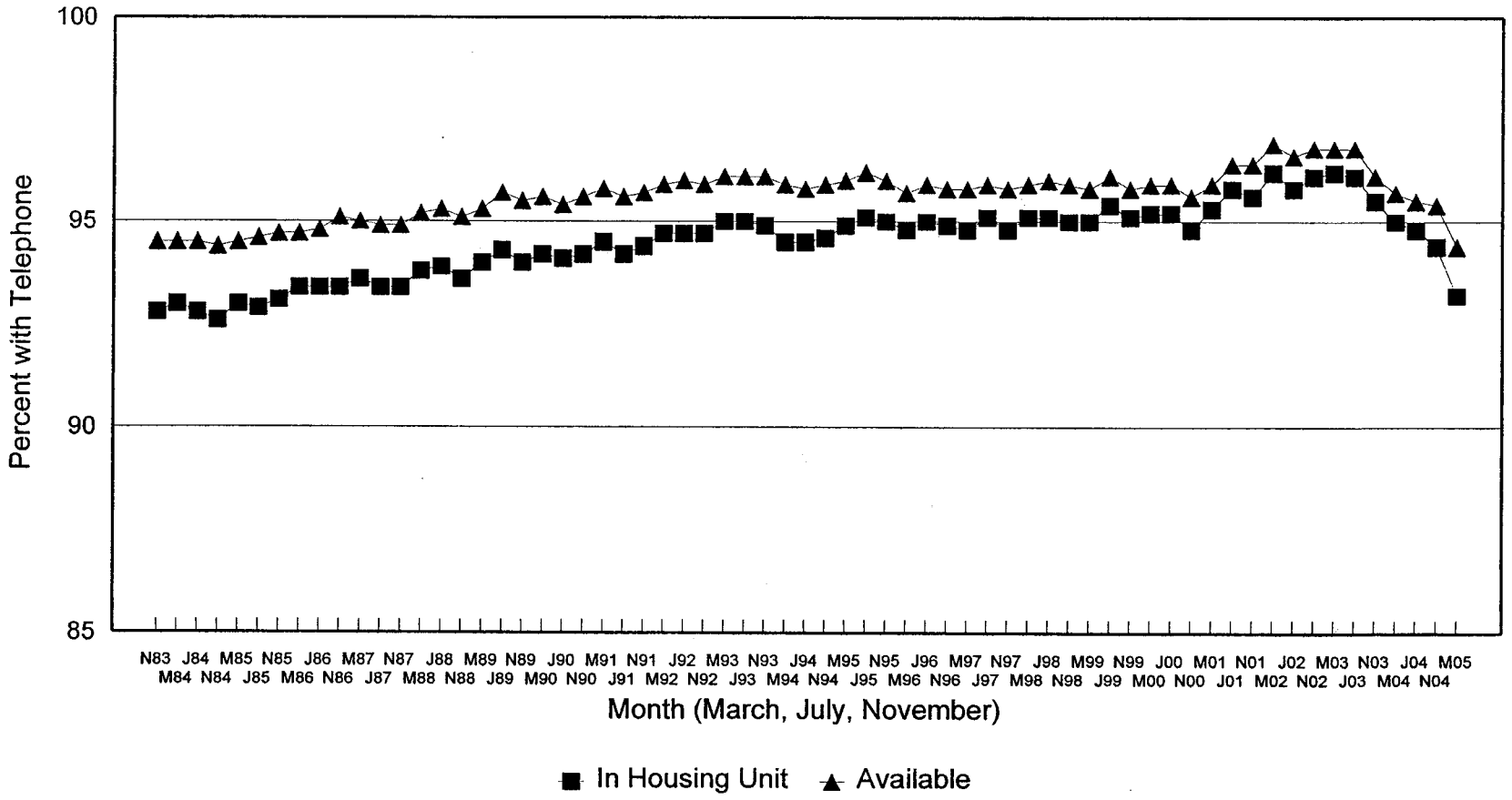


Table 3
Percentage of Households with a Telephone by State

	1983		1984		1985		1986	
	NOVEMBER		ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	91.4	93.7	91.6	93.7	91.8	93.9	92.3	94.1
ALABAMA	87.9	90.2	88.4	90.5	89.1	91.0	88.7	90.4
ALASKA	83.8	88.8	86.5	89.0	87.1	89.5	86.4	88.9
ARIZONA	88.8	90.7	86.9	89.4	87.3	89.6	89.4	90.9
ARKANSAS	88.2	91.4	86.6	90.6	85.9	89.9	86.4	90.4
CALIFORNIA	91.7	93.5	92.5	93.8	92.9	94.1	93.0	94.0
COLORADO	94.4	96.5	93.2	95.4	94.3	96.2	94.1	96.0
CONNECTICUT	95.5	98.4	95.5	97.0	96.2	97.6	97.0	97.9
DELAWARE	95.0	96.6	94.3	95.7	94.8	96.2	94.7	96.3
DISTRICT OF COLUMBIA	94.7	95.6	94.9	96.3	93.6	95.2	92.2	94.0
FLORIDA	85.5	89.9	88.7	91.3	89.6	91.7	90.0	92.5
GEORGIA	88.9	92.1	86.2	89.1	87.6	89.7	88.4	91.0
HAWAII	94.6	96.4	93.5	94.9	93.0	95.0	92.2	94.4
IDAHO	89.5	92.2	90.7	91.7	91.8	93.1	91.5	93.1
ILLINOIS	95.0	95.9	94.2	95.8	93.7	95.3	93.6	95.2
INDIANA	90.3	93.5	91.6	93.6	92.3	94.7	92.2	94.3
IOWA	95.4	97.2	96.2	97.4	95.1	96.4	95.7	96.5
KANSAS	94.9	96.7	94.3	95.8	94.4	96.4	94.6	96.1
KENTUCKY	86.9	90.9	88.1	91.0	87.4	91.1	86.2	90.6
LOUISIANA	88.9	93.3	89.7	92.7	90.3	93.6	88.7	91.9
MAINE	90.7	93.1	93.4	95.3	94.0	95.6	93.4	95.4
MARYLAND	96.3	96.7	95.7	96.5	95.5	96.7	95.7	96.7
MASSACHUSETTS	94.3	95.9	95.9	96.9	95.2	96.3	96.4	97.1
MICHIGAN	93.8	94.9	92.8	94.5	92.9	94.2	93.4	94.5
MINNESOTA	96.4	97.5	95.8	97.1	96.4	97.4	96.2	97.2
MISSISSIPPI	82.4	89.1	82.4	87.5	80.9	87.6	80.1	87.3
MISSOURI	92.1	94.1	91.5	93.7	92.5	94.8	93.4	94.9
MONTANA	92.8	94.5	91.0	94.0	91.4	93.9	90.9	93.7
NEBRASKA	94.0	95.3	95.7	96.8	95.3	96.6	95.6	96.8
NEVADA	89.4	91.9	90.4	92.8	91.8	93.8	92.4	93.7
NEW HAMPSHIRE	95.0	96.9	94.3	95.8	93.2	94.6	94.0	95.0
NEW JERSEY	94.1	95.1	94.8	96.1	94.9	96.2	94.9	96.1
NEW MEXICO	85.3	90.9	82.0	87.0	84.1	88.2	85.1	89.1
NEW YORK	90.8	92.2	91.8	93.6	92.1	93.6	93.2	94.3
NORTH CAROLINA	89.3	92.9	88.3	91.9	89.4	92.4	90.2	92.5
NORTH DAKOTA	95.1	97.3	94.6	96.8	95.3	96.7	96.1	97.0
OHIO	92.2	93.9	92.4	94.4	92.2	94.5	93.1	94.4
OKLAHOMA	91.5	93.7	90.3	92.5	88.8	91.7	90.4	93.0
OREGON	91.2	93.5	90.6	92.3	90.3	92.1	92.7	94.3
PENNSYLVANIA	95.1	97.1	94.9	96.5	95.3	96.6	96.3	97.4
RHODE ISLAND	93.3	94.6	93.6	94.6	94.0	95.1	95.9	96.8
SOUTH CAROLINA	81.8	84.9	83.7	87.7	86.8	90.5	86.3	90.6
SOUTH DAKOTA	92.7	95.0	93.2	94.9	92.6	94.5	92.6	94.2
TENNESSEE	87.6	92.6	88.5	92.0	89.3	92.6	89.6	93.6
TEXAS	89.0	92.6	88.4	91.6	88.1	91.6	88.9	91.9
UTAH	90.3	92.2	92.5	94.2	93.9	95.1	93.0	93.9
VERMONT	92.7	94.3	92.3	94.0	92.9	94.1	93.8	95.6
VIRGINIA	93.1	94.7	93.1	95.1	91.7	93.8	92.1	94.1
WASHINGTON	92.5	93.7	93.0	94.4	94.7	96.2	94.6	96.3
WEST VIRGINIA	88.1	91.1	87.7	91.8	87.6	91.7	88.2	91.9
WISCONSIN	94.8	96.1	95.2	96.6	94.1	95.4	95.1	95.9
WYOMING	89.7	93.3	89.9	92.8	93.4	94.9	92.1	95.1

Table 3
Percentage of Households with a Telephone by State

	1987		1988		1989		1990	
	ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	92.4	94.2	92.7	94.5	93.1	94.9	93.3	95.0
ALABAMA	87.5	89.6	87.3	89.6	89.0	91.3	89.5	91.1
ALASKA	87.8	90.2	87.6	89.9	86.8	89.9	89.3	92.6
ARIZONA	88.6	90.7	90.6	92.3	91.6	93.2	93.0	95.1
ARKANSAS	86.3	90.7	86.1	90.2	87.5	91.0	88.7	91.9
CALIFORNIA	93.8	95.0	94.4	95.5	94.9	96.0	94.6	95.5
COLORADO	92.9	95.5	93.8	95.4	94.6	96.0	94.7	96.3
CONNECTICUT	97.0	98.0	96.3	98.9	98.1	98.5	97.1	97.7
DELAWARE	96.5	97.3	97.0	97.9	96.6	97.5	96.0	97.1
DISTRICT OF COLUMBIA	92.4	94.2	94.6	95.9	92.7	94.8	91.4	93.2
FLORIDA	91.7	93.8	92.7	94.5	92.9	94.5	93.0	94.9
GEORGIA	88.7	91.3	90.1	92.4	90.2	92.9	90.9	93.4
HAWAII	94.2	96.6	94.5	96.3	95.1	96.9	95.3	96.8
IDAHO	91.1	92.5	92.2	93.3	92.5	93.6	92.8	94.1
ILLINOIS	93.7	95.2	94.2	95.6	93.9	95.4	94.3	95.7
INDIANA	91.2	93.2	92.3	94.9	93.2	95.9	92.8	95.9
IOWA	95.1	96.3	95.4	96.9	96.3	97.5	96.1	96.9
KANSAS	95.2	96.6	94.4	95.7	94.4	95.8	95.4	96.5
KENTUCKY	86.5	90.6	87.5	90.9	88.9	92.7	89.1	93.3
LOUISIANA	87.5	90.8	87.3	91.1	88.6	91.3	89.4	92.0
MAINE	93.5	95.2	94.2	95.9	95.3	96.4	95.7	97.6
MARYLAND	95.4	96.6	95.9	97.2	95.0	96.6	95.4	96.7
MASSACHUSETTS	96.4	97.0	96.9	97.3	97.1	97.8	96.6	97.4
MICHIGAN	93.7	94.8	93.9	95.0	93.7	94.9	94.1	95.5
MINNESOTA	96.0	97.4	97.2	98.4	96.8	97.8	96.9	98.1
MISSISSIPPI	81.5	86.3	83.3	88.6	85.5	90.3	87.0	90.9
MISSOURI	93.0	95.3	93.5	95.6	91.0	93.4	92.0	95.3
MONTANA	90.9	93.9	91.7	94.2	91.7	94.3	92.0	94.2
NEBRASKA	94.6	96.1	95.4	96.1	95.2	96.3	96.2	97.1
NEVADA	92.4	93.7	92.4	93.4	92.7	93.3	92.6	93.6
NEW HAMPSHIRE	94.1	96.2	95.2	96.1	95.4	97.1	95.0	96.5
NEW JERSEY	95.0	96.3	94.4	95.9	94.8	96.1	94.7	95.9
NEW MEXICO	86.0	89.3	85.7	89.1	85.8	89.6	85.8	89.5
NEW YORK	92.7	94.2	92.4	94.0	92.3	94.0	91.1	92.8
NORTH CAROLINA	89.2	91.7	90.4	92.8	91.9	94.1	91.9	94.2
NORTH DAKOTA	96.8	97.4	96.8	97.5	97.0	98.0	97.0	97.9
OHIO	93.4	94.7	94.4	95.2	94.6	95.5	95.2	96.3
OKLAHOMA	88.7	91.8	88.9	91.6	88.2	91.2	89.5	92.7
OREGON	93.3	94.8	92.0	93.5	92.3	93.9	94.5	95.9
PENNSYLVANIA	96.4	97.3	96.2	97.1	97.0	97.5	96.9	97.6
RHODE ISLAND	95.2	96.3	95.4	96.5	95.4	96.3	95.6	96.5
SOUTH CAROLINA	87.7	90.6	88.5	91.4	87.8	90.8	90.2	93.2
SOUTH DAKOTA	92.8	95.0	92.9	95.4	93.3	95.0	93.4	95.3
TENNESSEE	89.2	92.6	90.3	93.5	91.9	95.1	91.6	94.1
TEXAS	89.5	92.2	88.5	91.3	88.8	91.6	89.4	92.0
UTAH	92.3	94.6	92.5	94.5	95.9	96.5	95.6	96.3
VERMONT	95.3	96.9	95.6	96.8	93.9	95.7	94.9	96.9
VIRGINIA	92.5	94.6	92.9	95.5	93.2	95.7	93.0	94.9
WASHINGTON	94.3	96.4	94.3	95.7	96.4	97.3	97.1	97.7
WEST VIRGINIA	87.8	91.5	87.3	91.4	86.8	90.3	87.6	91.7
WISCONSIN	96.4	97.1	97.0	98.0	97.3	98.4	96.9	97.7
WYOMING	92.3	94.1	93.0	94.4	93.6	95.5	94.1	95.9

Table 3
Percentage of Households with a Telephone by State

	1991		1992		1993		1994	
	ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	93.4	95.1	93.8	95.3	94.2	95.6	93.8	95.4
ALABAMA	91.4	93.3	90.8	93.2	91.9	94.3	91.3	94.3
ALASKA	90.8	93.5	91.7	94.4	89.9	93.8	91.8	94.6
ARIZONA	93.4	94.9	93.3	94.7	93.3	94.4	93.9	95.3
ARKANSAS	87.6	91.4	87.3	91.0	87.8	91.0	90.2	93.5
CALIFORNIA	95.0	95.9	95.6	96.5	95.8	96.7	94.8	95.7
COLORADO	95.4	97.0	95.5	96.3	96.1	96.5	96.7	97.7
CONNECTICUT	96.2	97.3	96.6	97.3	96.7	97.5	96.5	97.5
DELAWARE	96.4	97.5	96.5	97.8	96.5	96.8	95.5	97.1
DISTRICT OF COLUMBIA	90.9	92.6	88.7	90.5	90.2	91.7	90.0	91.2
FLORIDA	93.3	95.0	93.5	95.1	93.8	95.1	93.5	94.9
GEORGIA	89.9	91.7	90.2	91.9	93.2	94.2	91.1	93.2
HAWAII	95.1	96.4	95.3	96.8	94.4	96.3	94.3	96.1
IDAHO	92.0	93.6	93.0	94.7	94.4	95.7	94.7	96.2
ILLINOIS	93.8	95.6	93.8	95.5	93.6	95.3	93.6	95.2
INDIANA	92.2	94.6	91.9	93.2	93.7	95.1	93.6	94.8
IOWA	95.6	97.4	95.4	97.4	96.4	97.4	96.8	98.0
KANSAS	94.5	95.7	95.2	96.6	95.6	96.3	94.7	96.2
KENTUCKY	88.1	92.9	89.6	92.6	89.8	93.1	91.2	93.8
LOUISIANA	91.1	93.9	91.7	93.9	90.4	92.2	91.4	93.9
MAINE	94.4	96.6	93.2	95.3	96.0	98.1	96.0	97.8
MARYLAND	96.3	97.2	96.0	97.4	96.7	97.9	95.6	96.6
MASSACHUSETTS	96.4	97.4	96.8	97.5	96.9	97.9	96.5	97.1
MICHIGAN	94.1	95.5	94.4	95.5	95.6	96.5	95.0	96.6
MINNESOTA	97.1	97.9	96.7	98.1	96.1	97.3	95.6	97.2
MISSISSIPPI	86.0	90.9	86.3	90.4	87.2	90.6	88.6	92.5
MISSOURI	93.6	95.2	94.0	96.0	93.1	95.3	93.8	96.0
MONTANA	92.5	94.4	93.2	95.7	94.6	96.3	93.9	95.5
NEBRASKA	95.9	96.4	96.4	97.1	96.6	97.2	96.7	98.0
NEVADA	93.3	94.5	93.7	94.6	95.4	95.9	93.0	93.5
NEW HAMPSHIRE	96.2	97.5	95.4	96.4	96.0	96.9	96.4	97.3
NEW JERSEY	93.6	95.2	94.4	95.3	94.3	95.1	92.9	94.1
NEW MEXICO	87.1	89.9	88.4	90.9	90.2	93.3	88.3	91.2
NEW YORK	91.9	93.4	93.4	94.5	93.5	94.8	93.1	94.4
NORTH CAROLINA	91.8	94.2	92.5	94.5	92.7	94.6	92.6	95.2
NORTH DAKOTA	96.3	97.6	95.8	97.1	97.1	98.0	96.5	97.7
OHIO	94.5	95.8	94.6	95.6	94.9	96.0	94.8	96.0
OKLAHOMA	89.3	91.9	90.9	93.1	92.1	94.0	91.8	93.6
OREGON	94.7	95.4	93.9	94.7	94.8	95.7	96.1	97.0
PENNSYLVANIA	96.8	97.8	96.9	97.7	97.3	98.0	97.0	98.0
RHODE ISLAND	94.7	96.3	94.8	96.0	95.5	96.7	95.9	97.3
SOUTH CAROLINA	90.0	93.3	89.2	92.9	89.8	91.9	89.4	92.3
SOUTH DAKOTA	93.7	95.7	94.1	95.6	93.7	95.4	94.7	96.1
TENNESSEE	92.2	94.6	93.1	95.2	92.0	93.9	93.1	95.6
TEXAS	91.1	93.6	91.5	94.2	91.6	94.3	90.8	93.2
UTAH	96.2	97.0	95.9	96.5	96.0	96.8	95.7	97.1
VERMONT	94.4	96.5	94.2	95.6	94.6	95.9	94.6	96.3
VIRGINIA	92.6	94.7	94.8	96.4	94.3	95.9	94.8	96.7
WASHINGTON	96.8	97.3	96.0	96.9	96.8	98.0	96.0	97.2
WEST VIRGINIA	89.0	93.0	89.3	92.6	90.6	93.6	90.8	94.2
WISCONSIN	96.5	97.5	97.0	97.7	96.9	97.6	96.1	97.6
WYOMING	94.6	96.3	92.7	94.9	93.9	95.7	93.5	95.5

Table 3
Percentage of Households with a Telephone by State

	1995		1996		1997		1998	
	ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	93.9	95.2	93.9	95.0	93.9	95.0	94.1	95.2
ALABAMA	92.2	94.0	92.2	93.9	92.3	93.6	93.3	94.4
ALASKA	93.6	95.6	94.4	95.4	94.5	96.4	94.0	96.0
ARIZONA	93.8	95.1	93.1	94.1	91.6	93.2	91.9	93.0
ARKANSAS	89.4	92.5	86.9	89.7	89.8	91.8	88.0	89.8
CALIFORNIA	94.5	95.3	95.0	95.6	94.3	94.9	95.2	95.9
COLORADO	96.6	97.2	95.5	96.4	95.9	97.3	95.0	96.0
CONNECTICUT	96.9	98.0	97.5	98.2	94.2	94.8	95.5	96.2
DELAWARE	96.2	96.8	96.1	97.1	95.7	96.7	96.7	97.0
DISTRICT OF COLUMBIA	90.9	92.3	93.0	94.2	90.8	92.3	91.0	92.3
FLORIDA	93.9	94.8	93.1	94.2	92.8	94.0	92.6	93.5
GEORGIA	90.0	91.8	89.7	91.1	92.0	93.0	91.4	92.5
HAWAII	94.7	96.0	94.8	95.9	94.5	95.6	95.4	96.3
IDAHO	95.1	96.1	92.9	94.3	94.0	94.7	93.3	94.2
ILLINOIS	93.6	95.0	93.0	94.2	92.2	93.7	92.8	93.9
INDIANA	94.4	95.9	93.7	95.1	93.8	95.1	94.4	95.7
IOWA	96.4	97.6	96.6	96.9	96.7	97.5	96.7	97.5
KANSAS	93.9	95.0	93.9	95.2	94.0	95.2	94.3	95.3
KENTUCKY	92.1	94.2	92.3	93.3	93.2	94.3	93.3	95.1
LOUISIANA	92.6	95.3	91.1	93.3	91.0	93.5	92.3	93.3
MAINE	95.7	96.9	96.5	97.8	96.1	97.3	96.9	97.9
MARYLAND	96.4	96.8	96.7	97.2	95.7	96.3	96.5	97.0
MASSACHUSETTS	95.9	96.7	95.7	96.7	95.4	96.3	94.5	95.4
MICHIGAN	95.2	96.0	95.0	95.6	94.3	95.2	95.0	96.0
MINNESOTA	97.3	98.1	97.1	98.0	96.9	98.0	97.8	98.3
MISSISSIPPI	86.5	91.1	87.5	91.6	89.2	93.2	89.5	92.0
MISSOURI	94.4	95.7	95.3	96.7	95.0	96.2	94.6	95.9
MONTANA	94.2	95.3	94.3	95.5	93.7	94.8	94.1	95.0
NEBRASKA	97.1	97.8	96.0	96.9	97.1	97.8	96.2	97.0
NEVADA	92.6	93.6	93.5	94.1	94.1	94.4	92.3	93.3
NEW HAMPSHIRE	96.2	97.2	96.1	96.9	96.5	97.4	95.5	96.6
NEW JERSEY	92.3	93.2	93.6	94.8	94.9	96.0	94.5	95.3
NEW MEXICO	86.4	88.8	86.2	88.6	88.1	90.8	88.2	91.3
NEW YORK	92.9	93.9	93.4	94.3	94.2	95.1	94.8	95.7
NORTH CAROLINA	93.4	95.1	93.5	95.1	93.1	94.2	93.1	94.0
NORTH DAKOTA	97.2	97.9	96.3	96.7	95.8	97.0	96.8	97.5
OHIO	94.0	95.0	94.5	95.6	94.6	95.3	95.6	96.3
OKLAHOMA	91.5	92.9	91.3	92.6	91.4	93.1	90.6	91.7
OREGON	96.4	96.9	96.0	96.8	95.6	96.3	96.0	97.2
PENNSYLVANIA	96.8	97.5	96.9	97.5	97.1	97.6	96.8	97.4
RHODE ISLAND	96.0	97.4	95.7	96.3	94.5	95.6	95.6	96.5
SOUTH CAROLINA	90.5	92.3	91.3	93.6	92.5	93.8	92.9	94.1
SOUTH DAKOTA	94.3	95.9	93.3	94.5	93.9	95.0	90.6	91.7
TENNESSEE	93.0	95.5	94.0	96.2	94.5	96.4	94.6	96.3
TEXAS	91.3	93.3	91.0	92.6	91.3	93.0	92.2	93.7
UTAH	97.6	97.9	96.7	97.0	96.9	97.7	97.1	97.7
VERMONT	96.5	98.0	95.9	97.7	95.1	96.7	95.2	96.1
VIRGINIA	95.9	97.3	94.9	96.1	94.5	95.7	93.9	94.6
WASHINGTON	95.7	96.6	94.5	95.5	95.9	96.9	95.2	95.9
WEST VIRGINIA	92.7	94.9	92.9	95.0	93.2	94.9	93.8	95.5
WISCONSIN	97.3	97.7	97.0	97.7	96.3	97.2	95.9	96.8
WYOMING	94.1	95.5	95.0	95.7	93.4	95.0	93.7	94.6

Table 3
Percentage of Households with a Telephone by State

	1999		2000		2001		2002	
	ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	94.2	95.0	94.4	95.2	94.9	95.7	95.3	96.2
ALABAMA	91.5	93.0	91.9	93.3	92.8	94.0	92.2	93.2
ALASKA	94.6	96.5	94.3	96.9	96.0	97.1	96.4	97.9
ARIZONA	93.2	93.8	93.9	94.8	94.5	95.1	94.8	96.0
ARKANSAS	88.9	90.5	88.6	89.9	91.3	92.9	92.1	93.4
CALIFORNIA	95.7	96.2	95.8	96.4	96.6	97.0	97.0	97.4
COLORADO	96.7	97.2	96.3	96.7	96.7	97.3	97.2	97.7
CONNECTICUT	96.5	96.8	96.4	96.8	96.1	96.8	97.4	97.9
DELAWARE	95.7	96.9	96.3	97.1	96.2	96.9	96.8	97.3
DISTRICT OF COLUMBIA	92.4	93.5	93.2	94.1	94.5	95.5	94.0	95.6
FLORIDA	92.6	93.6	92.1	92.9	93.2	94.0	94.3	95.2
GEORGIA	92.1	93.2	91.1	92.5	92.4	93.4	94.0	94.8
HAWAII	96.3	97.1	94.7	95.3	95.7	96.6	96.8	97.7
IDAHO	93.8	94.6	93.9	94.8	94.5	95.6	95.0	96.1
ILLINOIS	91.8	93.0	91.5	92.3	92.5	93.4	92.8	93.7
INDIANA	93.8	95.2	94.5	95.3	93.9	95.0	93.4	94.5
IOWA	95.8	96.5	96.2	97.1	97.1	97.8	96.9	97.8
KANSAS	93.8	94.8	94.8	95.7	94.2	95.9	95.5	96.6
KENTUCKY	92.8	94.1	93.3	94.3	93.5	94.5	95.0	96.0
LOUISIANA	91.5	93.1	92.6	93.8	93.6	94.6	92.4	93.6
MAINE	97.2	97.9	97.9	98.3	97.8	98.5	97.9	98.7
MARYLAND	95.3	95.8	95.0	96.0	96.0	96.3	96.4	97.0
MASSACHUSETTS	95.4	96.0	94.6	95.5	95.6	96.1	96.9	97.5
MICHIGAN	94.2	94.9	95.0	95.6	94.7	95.6	94.3	94.9
MINNESOTA	96.9	97.3	97.4	97.8	97.5	97.8	97.7	98.3
MISSISSIPPI	88.0	91.2	89.2	92.0	89.9	92.6	91.4	93.3
MISSOURI	95.6	96.6	95.8	96.9	96.1	96.8	96.2	97.0
MONTANA	95.3	96.2	94.6	95.1	95.0	95.7	94.8	96.0
NEBRASKA	95.9	96.6	97.3	98.0	96.6	97.4	95.8	96.7
NEVADA	93.1	93.5	94.0	94.5	95.1	95.8	95.5	96.1
NEW HAMPSHIRE	97.0	97.6	97.7	98.3	98.3	98.6	97.2	97.7
NEW JERSEY	93.9	94.3	94.6	95.0	95.8	96.4	95.9	96.9
NEW MEXICO	89.8	91.4	91.2	92.7	92.2	93.6	91.8	93.9
NEW YORK	95.3	96.1	95.1	95.7	95.1	95.9	95.8	96.3
NORTH CAROLINA	93.9	94.8	93.9	95.0	93.6	94.7	94.3	95.2
NORTH DAKOTA	97.3	97.9	95.8	96.4	94.4	95.3	94.9	95.0
OHIO	94.7	95.6	94.8	95.8	96.0	96.7	95.9	96.9
OKLAHOMA	91.2	92.5	91.2	92.3	93.2	94.3	93.1	94.6
OREGON	95.2	96.1	94.8	95.6	95.6	96.5	97.2	97.7
PENNSYLVANIA	97.1	97.4	96.6	97.1	97.0	97.5	98.0	98.2
RHODE ISLAND	94.3	94.7	94.9	95.9	96.3	96.7	96.1	96.7
SOUTH CAROLINA	92.9	94.0	93.2	94.2	94.5	95.6	94.3	95.1
SOUTH DAKOTA	92.7	93.4	94.3	95.0	95.1	95.8	95.1	95.6
TENNESSEE	94.5	96.0	95.5	96.6	93.2	94.7	93.6	94.9
TEXAS	92.4	93.5	93.5	94.4	93.8	94.9	94.2	95.5
UTAH	95.6	96.5	95.9	96.5	96.6	96.9	96.7	97.6
VERMONT	95.3	96.7	95.6	96.2	97.2	97.8	97.6	98.1
VIRGINIA	93.2	94.1	95.4	96.0	94.7	95.3	96.2	96.8
WASHINGTON	95.9	96.4	94.9	96.0	96.0	96.9	96.4	97.2
WEST VIRGINIA	92.7	94.6	94.0	95.3	93.5	95.3	94.5	95.7
WISCONSIN	95.7	96.6	94.8	96.0	95.8	96.8	96.1	97.0
WYOMING	95.0	95.6	94.7	96.0	93.8	94.8	94.0	94.8

Table 3
Percentage of Households with a Telephone by State

	2003							
	MARCH		JULY		NOVEMBER		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	95.5	96.3	95.2	96.1	94.7	95.5	95.1	96.0
ALABAMA	90.5	91.8	92.3	94.0	92.4	93.1	91.7	93.0
ALASKA	96.8	98.3	96.6	97.8	97.1	98.4	96.8	98.2
ARIZONA	95.6	96.1	95.0	95.7	94.9	96.4	95.2	96.1
ARKANSAS	93.0	93.7	90.4	91.8	89.7	91.4	91.0	92.3
CALIFORNIA	97.2	97.6	97.6	97.9	96.5	97.0	97.1	97.5
COLORADO	97.0	97.5	97.3	98.1	96.2	96.7	96.8	97.4
CONNECTICUT	97.6	98.3	95.1	97.0	97.6	98.4	96.8	97.9
DELAWARE	96.9	97.4	96.3	97.2	96.6	97.1	96.6	97.2
DISTRICT OF COLUMBIA	95.1	96.3	95.3	96.6	95.5	96.0	95.3	96.3
FLORIDA	95.0	95.6	95.2	96.0	93.7	94.4	94.6	95.3
GEORGIA	95.2	95.6	94.7	95.9	91.3	91.8	93.7	94.4
HAWAII	98.0	98.5	97.5	98.3	96.5	97.7	97.3	98.2
IDAHO	94.8	96.2	95.8	96.5	92.8	95.1	94.5	95.9
ILLINOIS	92.4	93.0	91.3	92.5	91.5	92.3	91.7	92.6
INDIANA	93.8	94.6	92.8	93.9	93.8	95.1	93.5	94.5
IOWA	97.0	97.5	96.5	97.3	96.8	97.6	96.8	97.5
KANSAS	96.3	97.6	95.3	96.4	96.0	97.0	95.9	97.0
KENTUCKY	94.0	95.6	96.0	96.2	93.7	94.6	94.6	95.5
LOUISIANA	93.4	94.4	93.7	94.4	92.5	94.1	93.2	94.3
MAINE	98.0	98.8	97.3	97.9	98.0	98.3	97.8	98.3
MARYLAND	98.5	98.8	97.2	97.7	97.4	97.7	97.7	98.1
MASSACHUSETTS	97.1	97.9	97.9	98.5	97.8	98.3	97.6	98.2
MICHIGAN	95.2	96.0	94.2	95.7	93.5	94.8	94.3	95.5
MINNESOTA	96.6	97.5	97.7	97.8	96.3	97.3	96.9	97.5
MISSISSIPPI	91.3	93.0	92.5	94.6	91.3	92.9	91.7	93.5
MISSOURI	97.0	97.5	95.2	95.7	95.4	96.2	95.9	96.5
MONTANA	94.2	95.0	92.7	93.9	92.8	93.9	93.2	94.3
NEBRASKA	96.5	96.8	95.9	96.6	95.5	96.2	96.0	96.5
NEVADA	94.9	96.0	94.3	94.7	94.2	94.5	94.5	95.1
NEW HAMPSHIRE	97.5	97.6	98.0	98.3	97.4	97.8	97.6	97.9
NEW JERSEY	96.1	96.9	96.6	97.5	96.2	97.2	96.3	97.2
NEW MEXICO	93.0	94.5	90.4	93.4	91.6	93.2	91.7	93.7
NEW YORK	95.3	96.0	95.4	95.9	94.9	95.4	95.2	95.8
NORTH CAROLINA	94.4	95.2	92.9	94.3	95.1	96.1	94.1	95.2
NORTH DAKOTA	94.4	95.7	93.7	94.3	94.2	94.8	94.1	94.9
OHIO	96.6	97.4	96.4	96.9	95.8	96.3	96.3	96.9
OKLAHOMA	92.7	93.7	90.8	92.0	91.2	92.5	91.6	92.7
OREGON	96.7	96.9	96.9	97.5	96.0	96.5	96.5	97.0
PENNSYLVANIA	97.1	97.7	97.2	97.6	96.8	97.3	97.0	97.5
RHODE ISLAND	97.4	97.8	96.3	97.1	97.1	97.3	96.9	97.4
SOUTH CAROLINA	93.6	94.5	94.4	96.4	91.7	93.9	93.2	94.9
SOUTH DAKOTA	94.8	95.5	92.9	93.5	94.7	95.9	94.1	95.0
TENNESSEE	94.3	95.6	94.2	95.2	94.2	95.4	94.2	95.4
TEXAS	94.8	95.9	93.1	94.6	92.8	93.9	93.6	94.8
UTAH	97.7	97.7	96.9	98.2	96.6	97.5	97.1	97.8
VERMONT	96.4	97.6	97.7	98.2	97.0	97.8	97.0	97.9
VIRGINIA	95.9	96.7	96.0	96.9	94.5	95.2	95.5	96.3
WASHINGTON	97.0	97.6	96.8	97.9	95.9	96.7	96.6	97.4
WEST VIRGINIA	94.9	96.2	94.7	96.1	93.2	95.0	94.3	95.8
WISCONSIN	96.3	96.7	96.3	97.1	95.7	96.5	96.1	96.8
WYOMING	93.8	95.2	93.8	94.7	93.9	95.0	93.8	95.0

Table 3
Percentage of Households with a Telephone by State

	2004							
	MARCH		JULY		NOVEMBER		ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	94.2	95.1	93.8	94.7	93.5	94.6	93.8	94.8
ALABAMA	91.7	93.4	91.4	92.2	93.5	94.7	92.2	93.4
ALASKA	96.2	97.5	94.5	95.9	96.1	97.0	95.6	96.8
ARIZONA	93.4	93.7	92.8	94.4	89.3	90.0	91.8	92.7
ARKANSAS	88.8	91.0	87.1	89.8	89.9	91.7	88.6	90.8
CALIFORNIA	95.9	96.5	95.8	96.4	96.2	96.6	96.0	96.5
COLORADO	97.0	97.3	95.0	95.9	95.4	96.1	95.8	96.4
CONNECTICUT	98.1	98.4	94.3	95.6	94.0	94.8	95.5	96.3
DELAWARE	96.1	97.3	96.3	97.1	95.7	96.6	96.0	97.0
DISTRICT OF COLUMBIA	93.2	93.4	91.9	92.8	90.6	92.9	91.9	93.0
FLORIDA	93.7	94.7	93.3	94.6	93.2	94.5	93.4	94.6
GEORGIA	92.1	92.7	90.8	91.5	90.7	91.9	91.2	92.0
HAWAII	95.3	96.6	96.9	97.6	93.9	95.0	95.4	96.4
IDAHO	96.8	97.1	95.2	96.2	92.5	93.8	94.8	95.7
ILLINOIS	90.4	91.1	89.7	90.6	90.1	91.3	90.1	91.0
INDIANA	91.3	92.5	91.8	93.0	92.4	93.7	91.8	93.1
IOWA	95.2	96.9	95.0	95.9	96.1	97.0	95.4	96.6
KANSAS	94.0	95.3	95.2	96.3	95.1	96.4	94.8	96.0
KENTUCKY	90.8	92.4	91.9	92.9	91.5	93.3	91.4	92.9
LOUISIANA	90.5	91.6	90.7	92.3	91.6	93.0	90.9	92.3
MAINE	96.6	98.1	96.9	98.1	96.3	97.2	96.6	97.8
MARYLAND	94.3	95.1	92.2	93.3	93.7	94.2	93.4	94.2
MASSACHUSETTS	96.8	97.1	96.3	96.7	96.1	96.9	96.4	96.9
MICHIGAN	94.2	95.5	93.8	94.5	93.2	93.8	93.7	94.6
MINNESOTA	97.7	97.8	96.6	97.5	97.1	98.4	97.1	97.9
MISSISSIPPI	91.6	92.9	89.2	89.7	87.9	90.2	89.6	90.9
MISSOURI	93.9	94.5	92.0	93.8	95.1	96.0	93.7	94.8
MONTANA	93.6	94.7	92.8	93.6	94.0	95.0	93.5	94.4
NEBRASKA	94.8	96.2	96.5	97.2	95.7	97.0	95.7	96.8
NEVADA	93.8	94.3	90.9	91.4	91.9	92.9	92.2	92.9
NEW HAMPSHIRE	95.0	95.6	97.5	97.8	96.8	97.3	96.4	96.9
NEW JERSEY	96.1	96.7	94.3	95.3	94.8	95.6	95.1	95.9
NEW MEXICO	91.6	93.7	91.5	94.1	91.1	92.7	91.4	93.5
NEW YORK	95.0	95.7	94.3	95.0	94.2	94.9	94.5	95.2
NORTH CAROLINA	93.6	94.3	93.5	94.3	92.9	94.6	93.3	94.4
NORTH DAKOTA	94.5	94.7	94.4	95.4	96.0	97.0	95.0	95.7
OHIO	94.0	95.5	96.1	97.0	94.7	95.5	94.9	96.0
OKLAHOMA	93.8	94.2	88.7	92.2	90.4	93.0	91.0	93.1
OREGON	95.5	96.0	96.1	97.0	94.8	95.5	95.5	96.2
PENNSYLVANIA	96.2	96.5	95.6	96.1	94.9	95.7	95.6	96.1
RHODE ISLAND	95.5	96.0	96.0	96.5	94.4	94.8	95.3	95.8
SOUTH CAROLINA	94.2	95.1	93.3	95.4	92.8	95.9	93.4	95.5
SOUTH DAKOTA	92.9	93.8	92.1	92.9	95.8	96.5	93.6	94.4
TENNESSEE	93.6	94.5	94.0	94.4	90.9	93.2	92.8	94.0
TEXAS	92.5	93.9	92.8	94.0	90.2	92.3	91.8	93.4
UTAH	97.0	97.2	95.7	96.7	96.1	97.4	96.3	97.1
VERMONT	96.9	97.5	96.0	96.8	94.8	95.6	95.9	96.6
VIRGINIA	94.5	95.0	94.5	95.1	93.1	94.5	94.0	94.9
WASHINGTON	95.1	95.8	95.3	96.0	96.1	97.4	95.5	96.4
WEST VIRGINIA	94.7	95.9	92.6	94.5	92.2	93.2	93.2	94.5
WISCONSIN	96.2	96.9	95.9	96.3	94.3	95.7	95.5	96.3
WYOMING	95.8	96.5	94.6	95.3	95.1	96.4	94.6	95.3

Table 3
Percentage of Households with a Telephone by State

	2005	
	MARCH	
	Unit	Avail
UNITED STATES	92.4	93.7
ALABAMA	90.6	92.6
ALASKA	95.2	96.1
ARIZONA	93.0	93.8
ARKANSAS	87.7	90.4
CALIFORNIA	94.5	95.3
COLORADO	95.0	96.1
CONNECTICUT	92.7	94.5
DELAWARE	90.7	91.9
DISTRICT OF COLUMBIA	91.2	93.3
FLORIDA	91.6	93.6
GEORGIA	90.4	92.4
HAWAII	95.2	96.7
IDAHO	94.8	95.6
ILLINOIS	89.1	89.8
INDIANA	91.4	92.9
IOWA	96.3	97.0
KANSAS	93.5	94.5
KENTUCKY	90.1	91.6
LOUISIANA	89.8	91.3
MAINE	95.4	96.6
MARYLAND	93.5	94.1
MASSACHUSETTS	93.9	94.7
MICHIGAN	91.5	93.4
MINNESOTA	95.6	97.2
MISSISSIPPI	86.7	90.2
MISSOURI	92.1	94.4
MONTANA	93.3	95.1
NEBRASKA	94.5	96.0
NEVADA	90.0	91.5
NEW HAMPSHIRE	94.4	95.4
NEW JERSEY	93.9	95.0
NEW MEXICO	92.2	93.8
NEW YORK	91.3	92.5
NORTH CAROLINA	91.4	92.5
NORTH DAKOTA	95.2	95.6
OHIO	93.3	93.9
OKLAHOMA	90.3	92.2
OREGON	94.5	95.4
PENNSYLVANIA	94.3	94.9
RHODE ISLAND	93.9	94.8
SOUTH CAROLINA	93.2	94.8
SOUTH DAKOTA	94.7	95.8
TENNESSEE	90.5	92.2
TEXAS	90.2	91.8
UTAH	96.9	97.4
VERMONT	96.7	97.9
VIRGINIA	91.2	92.4
WASHINGTON	96.9	97.8
WEST VIRGINIA	91.5	92.5
WISCONSIN	94.2	94.8
WYOMING	94.0	95.4

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 1983								
TOTAL	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
UNDER $5,000	71.7	78.4	75.7	81.9	62.7	70.4	58.3	64.6
$5,000 - $7,499	82.7	87.2	84.5	88.5	74.7	82.0	71.1	76.5
$7,500 - $9,999	88.2	90.9	89.6	92.2	80.5	83.9	72.6	77.9
$10,000 - $12,499	89.7	92.7	91.2	93.9	82.0	86.2	76.8	82.1
$12,500 - $14,999	92.1	94.6	93.4	95.2	82.5	90.7	89.8	91.7
$15,000 - $17,499	94.6	96.2	94.9	96.4	91.7	95.1	86.9	90.8
$17,500 - $19,999	95.7	97.4	96.1	97.7	91.4	95.0	88.4	91.5
$20,000 - $24,999	96.9	97.8	97.4	98.2	91.2	93.2	93.1	94.3
$25,000 - $29,999	98.0	98.9	98.2	99.0	96.1	97.2	98.3	99.0
$30,000 - $34,999	98.8	99.1	99.0	99.2	95.1	97.7	97.7	98.9
$35,000 - $39,999	99.0	99.5	99.1	99.5	98.4	98.4	92.1	98.2
$40,000 - $49,999	99.2	99.5	99.4	99.7	97.3	97.3	100.0	100.0
$50,000 - $74,999	99.4	99.7	99.5	99.7	98.5	100.0	99.6	100.0
$75,000 +	99.4	99.6	99.4	99.6	100.0	100.0	100.0	100.0
1984 ANNUAL AVERAGE								
TOTAL	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
UNDER $5,000	71.2	77.5	74.5	80.4	63.2	70.5	55.1	62.3
$5,000 - $7,499	83.3	86.9	85.5	88.7	74.8	80.2	69.8	73.6
$7,500 - $9,999	86.5	89.6	88.3	91.0	77.2	82.7	75.0	79.7
$10,000 - $12,499	89.7	92.6	91.1	93.6	81.1	86.3	79.7	84.6
$12,500 - $14,999	92.1	94.4	93.0	95.0	85.4	89.5	87.3	90.5
$15,000 - $17,499	93.7	95.7	94.2	96.0	88.5	92.2	88.4	90.0
$17,500 - $19,999	95.1	96.4	95.6	96.7	91.7	94.4	91.0	92.8
$20,000 - $24,999	96.8	97.8	97.1	98.0	93.3	95.8	92.5	94.5
$25,000 - $29,999	98.1	98.8	98.4	98.9	95.1	97.2	96.4	97.2
$30,000 - $34,999	98.7	99.1	98.8	99.3	96.8	97.2	98.8	99.1
$35,000 - $39,999	99.2	99.5	99.3	99.6	97.7	98.3	98.2	98.5
$40,000 - $49,999	99.3	99.6	99.4	99.7	96.6	96.9	98.9	99.3
$50,000 - $74,999	99.4	99.8	99.5	99.8	98.0	98.4	100.0	100.0
$75,000 +	98.9	99.6	98.9	99.6	96.5	100.0	98.0	100.0
1985 ANNUAL AVERAGE								
TOTAL	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
UNDER $5,000	71.9	78.1	75.3	81.3	63.9	70.6	61.6	67.0
$5,000 - $7,499	82.7	86.5	84.8	88.1	74.0	79.8	66.6	71.3
$7,500 - $9,999	86.8	90.0	88.1	90.9	80.3	85.0	75.0	79.4
$10,000 - $12,499	89.6	92.2	90.8	93.2	82.3	86.0	80.4	82.8
$12,500 - $14,999	91.0	93.7	92.2	94.5	82.7	87.8	82.8	85.8
$15,000 - $17,499	93.4	95.6	94.2	96.2	88.2	91.8	85.7	88.6
$17,500 - $19,999	94.7	96.2	95.1	96.6	91.5	93.4	90.4	92.8
$20,000 - $24,999	96.3	97.5	96.5	97.6	94.4	96.3	91.3	93.7
$25,000 - $29,999	97.6	98.5	97.8	98.6	95.8	97.3	93.0	95.9
$30,000 - $34,999	98.6	99.0	98.7	99.1	97.3	98.4	97.3	97.3
$35,000 - $39,999	98.8	99.2	98.9	99.4	96.9	97.8	98.2	99.4
$40,000 - $49,999	99.1	99.4	99.1	99.4	97.8	98.2	97.5	98.2
$50,000 - $74,999	99.3	99.7	99.4	99.7	97.9	98.8	99.5	99.5
$75,000 +	99.2	99.5	99.2	99.5	97.6	97.6	98.5	98.5

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1986 ANNUAL AVERAGE								
TOTAL	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
UNDER $5,000	71.6	77.4	74.9	80.1	63.9	71.0	57.5	62.9
$5,000 - $7,499	83.1	86.5	85.2	88.2	74.3	79.6	68.1	72.1
$7,500 - $9,999	86.9	90.2	88.4	91.1	78.6	85.2	72.9	75.8
$10,000 - $12,499	89.6	92.1	90.7	93.0	82.6	86.4	80.3	82.6
$12,500 - $14,999	91.2	93.8	91.9	94.4	86.4	90.3	83.9	87.8
$15,000 - $17,499	93.1	95.1	94.3	95.7	85.3	91.6	86.3	88.9
$17,500 - $19,999	94.9	96.3	95.3	96.7	92.2	94.2	87.2	90.1
$20,000 - $24,999	96.5	97.5	96.9	97.9	92.8	94.6	93.0	94.1
$25,000 - $29,999	97.7	98.4	98.0	98.7	94.5	95.9	93.9	95.2
$30,000 - $34,999	98.4	98.9	98.6	99.0	96.7	97.5	97.5	98.4
$35,000 - $39,999	98.9	99.3	99.0	99.4	97.6	97.9	98.1	99.3
$40,000 - $49,999	99.1	99.4	99.1	99.4	98.2	98.2	98.5	98.8
$50,000 - $74,999	99.5	99.8	99.6	99.8	99.4	99.4	99.4	99.7
$75,000 +	99.4	99.6	99.4	99.6	98.0	99.5	97.5	100.0
1987 ANNUAL AVERAGE								
TOTAL	92.4	94.2	93.8	95.4	81.8	85.9	83.0	85.4
UNDER $5,000	71.5	77.4	75.0	80.3	63.7	71.0	60.7	65.7
$5,000 - $7,499	83.4	86.7	85.5	88.4	74.8	80.2	69.9	72.4
$7,500 - $9,999	86.7	89.6	88.1	90.6	79.3	84.0	75.8	78.9
$10,000 - $12,499	89.5	92.3	90.4	93.1	83.2	87.5	81.0	84.1
$12,500 - $14,999	90.8	93.2	91.9	94.1	83.8	87.7	85.2	86.9
$15,000 - $17,499	92.6	94.9	93.5	95.5	86.9	90.8	85.6	88.7
$17,500 - $19,999	94.4	96.0	95.1	96.4	89.0	92.7	89.3	90.6
$20,000 - $24,999	96.4	97.6	96.8	97.9	93.5	95.1	93.1	94.9
$25,000 - $29,999	97.5	98.4	98.0	98.7	93.4	95.3	96.4	97.1
$30,000 - $34,999	98.1	98.9	98.3	99.0	96.1	97.2	96.9	97.7
$35,000 - $39,999	98.8	99.2	98.9	99.3	96.5	98.6	97.4	97.7
$40,000 - $49,999	99.4	99.7	99.5	99.7	98.7	98.7	99.7	99.8
$50,000 - $74,999	99.5	99.8	99.5	99.8	99.1	99.4	98.7	99.6
$75,000 +	99.5	99.8	99.5	99.8	98.5	99.6	98.6	100.0
1988 ANNUAL AVERAGE								
TOTAL	92.7	94.5	94.1	95.6	83.0	86.8	82.1	85.1
UNDER $5,000	72.0	78.4	74.9	80.8	65.8	73.2	58.5	64.5
$5,000 - $7,499	83.3	87.1	85.1	88.4	76.9	82.3	66.4	71.7
$7,500 - $9,999	85.6	88.7	87.2	90.3	77.7	81.4	67.3	72.8
$10,000 - $12,499	88.8	91.5	90.1	92.4	81.7	86.5	77.5	80.9
$12,500 - $14,999	91.3	93.7	92.2	94.4	85.1	88.8	81.5	84.5
$15,000 - $19,999	93.6	95.3	94.3	95.9	88.5	91.1	88.6	90.6
$20,000 - $24,999	96.2	97.4	96.5	97.6	93.5	95.7	91.1	93.1
$25,000 - $29,999	97.6	98.4	97.9	98.5	94.4	96.7	95.0	96.4
$30,000 - $34,999	98.4	99.0	98.7	99.2	95.4	96.7	98.6	99.0
$35,000 - $39,999	98.8	99.2	98.9	99.3	97.8	98.4	97.2	97.7
$40,000 - $49,999	99.3	99.6	99.4	99.7	97.3	98.5	98.7	99.7
$50,000 - $74,999	99.5	99.8	99.6	99.8	99.2	99.3	99.4	99.8
$75,000 +	99.5	99.9	99.4	99.9	100.0	100.0	97.8	100.0

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1989 ANNUAL AVERAGE								
TOTAL	93.1	94.9	94.5	95.9	83.2	87.1	83.0	86.0
UNDER $5,000	74.4	80.4	78.1	83.2	65.6	73.5	62.1	67.3
$5,000 - $7,499	83.7	87.4	85.7	89.1	77.4	82.0	68.8	73.8
$7,500 - $9,999	86.6	89.8	88.5	91.3	78.4	83.6	75.9	80.2
$10,000 - $12,499	88.4	91.3	90.0	92.6	79.3	84.9	73.2	76.8
$12,500 - $14,999	91.3	93.7	92.4	94.5	84.5	88.8	79.2	83.7
$15,000 - $19,999	93.2	95.0	94.2	95.8	85.9	89.2	86.3	88.8
$20,000 - $24,999	95.9	97.2	96.4	97.5	91.6	94.3	92.0	94.4
$25,000 - $29,999	97.5	98.4	97.9	98.6	94.0	96.0	93.3	96.3
$30,000 - $34,999	98.3	98.8	98.5	98.9	96.1	97.0	95.6	96.2
$35,000 - $39,999	98.7	99.3	98.9	99.4	96.7	98.0	95.8	97.5
$40,000 - $49,999	99.1	99.5	99.2	99.6	97.2	97.7	97.0	98.2
$50,000 - $59,999	99.5	99.7	99.5	99.8	98.7	99.0	98.7	99.2
$60,000 - $74,999	99.5	99.7	99.5	99.7	99.3	99.3	95.7	96.8
$75,000 +	99.5	99.8	99.5	99.8	99.5	99.5	99.7	99.7
1990 ANNUAL AVERAGE								
TOTAL	93.3	95.0	94.6	96.1	83.5	87.0	82.7	85.3
UNDER $5,000	75.4	81.0	79.1	84.2	66.1	72.8	61.1	66.1
$5,000 - $7,499	82.6	86.8	84.9	88.8	74.9	80.1	66.7	70.6
$7,500 - $9,999	86.9	89.9	89.0	91.6	77.3	82.4	74.8	77.8
$10,000 - $12,499	88.9	91.7	90.2	92.8	81.9	85.5	74.1	77.1
$12,500 - $14,999	91.7	93.9	92.7	94.7	85.9	88.7	82.0	84.3
$15,000 - $19,999	93.3	95.3	94.2	96.0	87.7	91.0	85.1	88.6
$20,000 - $24,999	95.6	97.0	96.1	97.4	91.9	93.7	89.4	91.3
$25,000 - $29,999	97.0	98.0	97.7	98.5	90.9	93.2	94.2	95.5
$30,000 - $34,999	97.9	98.6	98.4	98.9	93.3	95.4	96.0	97.0
$35,000 - $39,999	98.7	99.3	98.8	99.4	97.0	98.0	94.1	96.3
$40,000 - $49,999	99.1	99.4	99.2	99.5	98.5	98.8	97.8	97.8
$50,000 - $59,999	99.4	99.6	99.5	99.7	98.7	98.7	97.5	98.2
$60,000 - $74,999	99.5	99.7	99.6	99.8	98.3	98.8	98.8	99.1
$75,000 +	99.5	99.8	99.5	99.8	98.6	98.6	97.7	99.6
1991 ANNUAL AVERAGE								
TOTAL	93.4	95.1	94.8	96.2	83.5	87.2	84.1	86.7
UNDER $5,000	73.9	80.1	78.3	83.7	63.3	71.2	65.2	71.3
$5,000 - $7,499	82.9	86.8	85.2	88.8	75.0	80.3	69.6	74.7
$7,500 - $9,999	86.5	89.7	88.1	91.0	79.1	83.7	73.1	76.9
$10,000 - $12,499	88.9	91.6	90.0	92.5	82.4	86.2	76.0	79.2
$12,500 - $14,999	91.1	93.4	92.1	94.3	85.5	88.4	82.4	84.6
$15,000 - $19,999	93.4	95.2	94.3	95.9	87.1	90.7	87.0	89.8
$20,000 - $24,999	95.5	97.0	96.0	97.5	91.2	93.3	91.6	93.5
$25,000 - $29,999	96.8	97.9	97.3	98.2	93.6	96.0	90.9	92.4
$30,000 - $34,999	98.3	98.9	98.6	99.2	95.4	97.1	95.8	97.1
$35,000 - $39,999	98.7	99.1	98.8	99.3	97.0	97.7	96.2	97.3
$40,000 - $49,999	99.1	99.5	99.2	99.6	98.1	98.6	98.2	98.8
$50,000 - $59,999	99.5	99.7	99.5	99.7	98.6	99.0	97.9	98.6
$60,000 - $74,999	99.7	99.9	99.7	99.9	99.3	99.5	98.8	99.2
$75,000 +	99.7	99.9	99.7	99.9	99.6	100.0	98.5	99.6

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1992 ANNUAL AVERAGE								
TOTAL	93.8	95.3	95.2	96.4	84.2	87.9	85.8	88.2
UNDER $5,000	72.0	78.1	75.5	81.1	64.1	71.3	65.0	70.7
$5,000 - $7,499	83.2	86.8	85.4	88.3	76.3	82.3	72.0	75.5
$7,500 - $9,999	87.5	90.2	89.2	91.4	79.9	84.9	76.2	79.9
$10,000 - $12,499	90.5	92.9	91.6	93.9	84.6	87.9	82.1	85.3
$12,500 - $14,999	91.5	93.7	92.7	94.7	85.1	88.4	85.7	88.8
$15,000 - $19,999	93.3	95.0	94.3	95.7	86.6	90.6	86.7	89.5
$20,000 - $24,999	95.9	97.1	96.5	97.5	91.2	93.7	93.2	94.5
$25,000 - $29,999	97.1	98.0	97.6	98.5	92.6	94.6	94.8	95.6
$30,000 - $34,999	98.2	98.9	98.4	99.0	96.3	97.4	96.1	97.1
$35,000 - $39,999	98.6	99.0	98.9	99.3	96.4	97.4	96.6	97.5
$40,000 - $49,999	99.2	99.5	99.4	99.6	97.6	98.5	98.2	98.7
$50,000 - $59,999	99.4	99.7	99.4	99.7	98.9	99.6	98.3	98.5
$60,000 - $74,999	99.5	99.8	99.5	99.8	99.3	99.6	98.9	99.7
$75,000 +	99.4	99.7	99.5	99.8	97.7	97.9	99.1	99.1
1993 ANNUAL AVERAGE								
TOTAL	94.2	95.6	95.5	96.6	85.2	88.3	86.7	88.8
UNDER $5,000	72.9	78.9	76.4	82.0	65.5	72.7	66.3	70.7
$5,000 - $7,499	84.0	87.2	85.7	88.8	78.7	82.4	75.7	78.6
$7,500 - $9,999	87.4	90.1	89.1	91.4	80.1	84.6	79.7	82.8
$10,000 - $12,499	90.6	92.7	91.9	93.8	82.9	86.7	85.7	88.3
$12,500 - $14,999	92.0	94.1	93.2	95.1	84.8	88.7	84.0	86.2
$15,000 - $19,999	93.6	95.2	94.5	96.0	88.0	90.4	85.3	88.3
$20,000 - $24,999	96.3	97.5	96.8	97.8	92.6	94.6	91.9	94.6
$25,000 - $29,999	97.7	98.5	98.1	98.8	94.5	96.1	95.5	96.9
$30,000 - $34,999	98.3	98.9	98.6	99.1	96.3	96.9	96.2	97.3
$35,000 - $39,999	98.6	99.0	98.8	99.2	96.3	97.1	95.7	96.3
$40,000 - $49,999	99.2	99.5	99.3	99.5	98.2	98.6	96.9	97.4
$50,000 - $59,999	99.5	99.7	99.5	99.7	99.0	99.3	98.4	99.1
$60,000 - $74,999	99.6	99.8	99.6	99.8	99.3	99.3	100.0	100.0
$75,000 +	99.5	99.8	99.5	99.8	99.4	100.0	100.0	100.0
1994 ANNUAL AVERAGE								
TOTAL	93.8	95.4	95.1	96.4	85.7	89.4	86.0	88.3
UNDER $5,000	76.1	82.1	79.8	84.6	68.7	77.4	66.3	71.8
$5,000 - $7,499	82.7	87.0	84.9	88.9	77.2	82.4	73.1	77.3
$7,500 - $9,999	87.3	90.5	89.1	92.1	81.4	84.9	81.1	83.8
$10,000 - $12,499	89.6	92.2	90.9	93.1	81.5	88.6	83.3	86.2
$12,500 - $14,999	91.5	94.0	92.9	95.0	85.5	89.2	84.6	87.8
$15,000 - $19,999	93.6	95.3	94.4	95.8	86.6	92.2	87.6	89.7
$20,000 - $24,999	95.2	96.7	95.8	97.2	90.3	93.5	91.4	93.5
$25,000 - $29,999	96.6	97.6	97.0	97.9	93.9	95.8	92.1	93.3
$30,000 - $34,999	97.3	98.2	97.7	98.5	93.8	95.7	91.7	93.9
$35,000 - $39,999	97.8	98.5	98.1	98.6	94.4	97.3	95.2	96.0
$40,000 - $49,999	98.6	99.1	98.8	99.3	97.2	97.8	96.4	96.6
$50,000 - $59,999	99.0	99.3	99.2	99.4	96.3	98.1	99.5	99.7
$60,000 - $74,999	99.4	99.5	99.4	99.5	99.5	99.7	98.3	98.5
$75,000 +	99.1	99.4	99.2	99.4	98.6	99.3	98.7	98.7

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1995 ANNUAL AVERAGE								
TOTAL	93.9	95.2	95.2	96.2	86.2	89.2	85.9	87.8
UNDER $5,000	75.3	80.5	79.1	83.0	67.4	75.1	68.8	72.2
$5,000 - $7,499	82.8	86.3	84.8	87.7	77.9	83.0	72.6	75.5
$7,500 - $9,999	87.3	89.6	89.5	91.5	79.0	83.3	78.0	80.4
$10,000 - $12,499	89.8	92.1	91.2	93.2	83.5	87.6	84.2	86.4
$12,500 - $14,999	91.7	93.5	92.8	94.4	86.4	89.3	84.9	86.8
$15,000 - $19,999	93.1	95.0	94.1	95.6	88.5	92.4	84.9	87.6
$20,000 - $24,999	95.4	96.4	96.0	96.9	92.4	94.1	90.2	92.1
$25,000 - $29,999	96.6	97.6	97.0	97.9	93.7	95.6	92.2	94.3
$30,000 - $34,999	97.6	98.0	97.9	98.3	94.3	95.2	94.2	95.1
$35,000 - $39,999	98.3	98.7	98.5	98.8	96.9	97.5	97.3	98.4
$40,000 - $49,999	98.6	98.9	98.8	99.0	97.1	97.8	96.6	96.6
$50,000 - $59,999	98.8	99.1	99.0	99.3	97.7	98.2	95.7	97.0
$60,000 - $74,999	99.2	99.3	99.2	99.4	98.8	99.0	98.6	99.4
$75,000 +	99.0	99.2	99.0	99.2	99.1	99.5	99.0	99.0
1996 ANNUAL AVERAGE								
TOTAL	93.9	95.0	94.9	95.8	87.3	89.8	86.4	88.0
UNDER $5,000	75.6	80.3	78.0	81.7	70.1	76.9	68.0	71.4
$5,000 - $7,499	83.1	85.8	84.5	86.6	79.9	84.3	76.9	78.8
$7,500 - $9,999	87.2	89.8	88.6	90.7	81.9	86.7	79.7	82.3
$10,000 - $12,499	88.8	91.4	90.2	92.3	83.5	88.1	82.0	84.3
$12,500 - $14,999	91.7	93.5	92.8	94.4	86.1	89.5	85.1	87.0
$15,000 - $19,999	93.0	94.6	93.7	95.1	88.7	91.3	86.5	88.7
$20,000 - $24,999	94.5	95.6	95.1	96.0	91.3	92.6	86.5	88.6
$25,000 - $29,999	96.2	97.1	96.5	97.3	93.3	95.0	94.5	95.4
$30,000 - $34,999	97.5	98.1	97.7	98.3	96.4	97.4	95.7	96.3
$35,000 - $39,999	97.9	98.3	97.8	98.2	97.5	98.0	95.2	95.7
$40,000 - $49,999	98.5	98.9	98.7	99.0	96.7	97.0	96.1	97.5
$50,000 - $59,999	98.8	99.0	99.0	99.1	97.3	97.6	97.5	98.2
$60,000 - $74,999	98.8	99.1	99.0	99.3	97.3	97.3	97.9	99.4
$75,000 +	98.9	99.2	99.0	99.2	98.7	99.2	98.4	98.7
1997 ANNUAL AVERAGE								
TOTAL	93.9	95.0	95.0	95.9	86.9	89.5	86.7	88.6
UNDER $5,000	75.7	80.8	79.1	83.5	68.4	75.1	68.5	73.5
$5,000 - $7,499	82.8	85.9	84.5	87.1	78.1	82.4	74.6	77.0
$7,500 - $9,999	86.7	89.5	89.0	91.2	78.6	83.3	79.3	81.4
$10,000 - $12,499	89.9	91.9	90.9	92.7	85.3	88.1	82.4	86.0
$12,500 - $14,999	91.0	93.1	92.4	94.0	83.9	88.1	84.5	86.4
$15,000 - $19,999	93.1	94.6	94.1	95.3	88.8	91.8	86.7	88.4
$20,000 - $24,999	95.0	95.9	95.4	96.2	92.1	93.9	89.6	90.9
$25,000 - $29,999	95.8	96.8	96.2	97.1	92.6	94.7	91.8	93.7
$30,000 - $34,999	97.2	97.9	97.5	98.1	95.1	95.9	93.6	94.9
$35,000 - $39,999	97.4	97.9	97.9	98.1	94.8	96.2	94.9	96.4
$40,000 - $49,999	98.2	98.6	98.4	98.7	97.0	97.8	96.6	97.4
$50,000 - $59,999	98.4	98.8	98.5	98.9	96.9	97.3	97.7	98.6
$60,000 - $74,999	99.0	99.2	99.0	99.2	99.5	99.8	98.4	98.4
$75,000 +	99.0	99.2	99.1	99.3	98.5	98.8	98.1	98.3

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1998 ANNUAL AVERAGE								
TOTAL	94.1	95.2	95.1	96.0	87.9	89.7	88.4	90.0
UNDER $5,000	77.2	81.3	80.1	83.8	70.3	75.2	72.0	75.3
$5,000 - $7,499	83.0	85.9	84.9	87.6	77.6	81.0	77.0	80.6
$7,500 - $9,999	87.4	89.3	88.8	90.6	83.3	85.0	79.7	81.6
$10,000 - $12,499	89.8	91.7	90.7	92.5	85.7	88.5	84.6	86.2
$12,500 - $14,999	91.0	92.8	92.0	93.7	85.8	88.2	85.3	86.4
$15,000 - $19,999	93.0	94.2	94.0	95.2	88.3	89.6	89.6	91.0
$20,000 - $24,999	93.9	95.2	94.6	95.8	90.2	92.2	88.4	90.2
$25,000 - $29,999	95.6	96.6	95.8	96.7	94.0	95.9	91.3	93.5
$30,000 - $34,999	97.1	97.8	97.5	98.2	94.3	95.6	95.3	96.7
$35,000 - $39,999	97.5	98.0	97.8	98.3	95.4	96.4	95.9	96.8
$40,000 - $49,999	98.1	98.5	98.3	98.7	96.2	96.7	96.9	97.4
$50,000 - $59,999	98.1	98.5	98.2	98.6	96.8	97.5	95.7	96.7
$60,000 - $74,999	98.6	98.8	98.8	99.0	96.9	97.4	97.5	97.5
$75,000 +	99.0	99.2	99.0	99.2	99.1	99.1	98.6	98.8
1999 ANNUAL AVERAGE								
TOTAL	94.2	95.0	95.2	95.9	87.7	89.6	89.9	90.9
UNDER $5,000	76.0	79.8	79.0	82.6	69.5	74.2	72.8	75.6
$5,000 - $7,499	82.9	85.3	84.6	87.0	78.3	81.2	79.8	83.3
$7,500 - $9,999	88.3	90.3	89.9	91.5	81.8	85.5	85.0	85.8
$10,000 - $12,499	88.9	90.5	90.4	91.8	82.1	84.9	85.2	86.5
$12,500 - $14,999	90.3	92.0	91.0	92.4	87.1	89.8	84.8	85.9
$15,000 - $19,999	92.5	94.0	93.5	94.7	87.0	90.2	88.3	89.5
$20,000 - $24,999	94.1	95.1	94.8	95.7	90.5	92.1	91.5	92.8
$25,000 - $29,999	95.3	96.2	95.9	96.6	91.8	93.5	95.2	95.7
$30,000 - $34,999	96.7	97.4	97.2	97.7	93.9	95.5	94.7	95.2
$35,000 - $39,999	97.3	97.8	97.8	98.2	94.3	95.1	96.1	96.6
$40,000 - $49,999	98.2	98.5	98.3	98.6	97.2	97.6	95.8	96.5
$50,000 - $59,999	98.2	98.5	98.3	98.7	97.2	97.4	98.1	98.5
$60,000 - $74,999	98.6	98.8	98.6	98.9	97.6	98.4	98.2	98.4
$75,000 +	98.8	99.0	98.9	99.1	97.8	98.2	97.7	98.2
2000 ANNUAL AVERAGE								
TOTAL	94.4	95.2	95.2	95.9	89.3	90.7	90.5	91.6
UNDER $5,000	80.0	83.1	83.1	86.2	73.0	76.3	79.0	82.0
$5,000 - $7,499	84.2	86.3	85.0	87.0	81.7	84.6	82.4	84.7
$7,500 - $9,999	87.0	89.3	88.4	90.3	82.2	85.7	85.8	87.0
$10,000 - $12,499	90.0	91.5	90.9	92.5	85.9	87.5	84.0	86.0
$12,500 - $14,999	91.5	92.9	92.7	94.0	86.5	87.9	88.0	89.9
$15,000 - $19,999	91.7	93.2	92.6	94.1	86.9	89.1	87.2	88.5
$20,000 - $24,999	93.7	94.7	94.3	95.2	90.5	92.2	90.8	91.3
$25,000 - $29,999	95.5	96.3	96.0	96.8	92.5	93.8	93.0	94.3
$30,000 - $34,999	96.4	97.0	96.6	97.2	95.4	96.1	93.7	94.3
$35,000 - $39,999	97.2	97.7	97.5	98.0	95.1	95.7	95.4	95.8
$40,000 - $49,999	97.7	98.2	97.9	98.4	96.0	96.4	96.7	97.8
$50,000 - $59,999	98.0	98.3	98.1	98.4	97.0	97.5	97.6	97.8
$60,000 - $74,999	98.4	98.7	98.5	98.8	97.0	97.5	95.9	96.5
$75,000 +	98.4	98.7	98.5	98.7	97.5	97.7	96.9	97.4

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
2001 ANNUAL AVERAGE								
TOTAL	94.9	95.7	95.6	96.4	90.0	91.4	91.3	92.4
UNDER $5,000	79.9	83.3	83.1	85.7	72.7	78.0	78.8	82.3
$5,000 - $7,499	84.0	86.3	85.4	87.5	80.6	83.8	84.4	85.7
$7,500 - $9,999	88.8	90.6	90.0	91.6	84.6	87.3	86.5	88.6
$10,000 - $12,499	90.2	92.0	91.1	92.8	86.0	88.4	85.8	87.5
$12,500 - $14,999	91.4	92.6	92.2	93.3	86.5	88.3	88.4	88.8
$15,000 - $19,999	92.9	94.4	93.5	94.9	90.0	92.0	88.8	90.6
$20,000 - $24,999	94.3	95.4	94.9	96.0	90.5	92.1	91.3	93.1
$25,000 - $29,999	96.0	96.9	96.2	97.0	94.9	96.0	92.6	93.5
$30,000 - $34,999	96.7	97.3	97.0	97.5	95.3	96.0	94.9	95.2
$35,000 - $39,999	97.2	97.8	97.3	97.9	96.1	96.8	96.0	96.7
$40,000 - $49,999	97.8	98.3	97.9	98.4	97.0	97.3	96.0	96.1
$50,000 - $59,999	98.4	98.8	98.5	98.9	97.3	97.5	97.3	98.4
$60,000 - $74,999	98.6	98.9	98.7	99.0	97.9	98.3	96.5	97.5
$75,000 +	98.8	99.1	98.8	99.1	98.3	98.6	98.2	98.7
2002 ANNUAL AVERAGE								
TOTAL	95.3	96.2	96.2	96.9	90.1	91.6	91.7	92.9
UNDER $5,000	79.9	83.1	82.5	85.2	73.8	78.1	77.8	80.7
$5,000 - $7,499	83.3	86.1	85.9	88.6	76.4	79.7	84.5	85.7
$7,500 - $9,999	89.7	91.6	91.1	92.7	85.3	87.7	88.4	90.6
$10,000 - $12,499	90.6	92.3	91.9	93.3	85.3	87.9	88.1	89.7
$12,500 - $14,999	92.7	93.9	93.4	94.6	89.9	91.0	88.6	90.2
$15,000 - $19,999	93.2	94.5	93.8	94.8	91.1	93.5	87.7	89.1
$20,000 - $24,999	94.3	95.4	95.1	96.2	90.6	92.1	92.3	93.7
$25,000 - $29,999	95.6	96.6	96.0	97.0	93.3	94.4	93.4	95.3
$30,000 - $34,999	96.9	97.5	97.4	97.9	94.7	95.5	95.2	96.0
$35,000 - $39,999	97.9	98.4	98.0	98.6	97.1	97.5	97.4	97.9
$40,000 - $49,999	98.2	98.6	98.4	98.8	96.6	97.1	96.7	97.5
$50,000 - $59,999	98.7	99.2	98.9	99.2	98.0	98.2	97.9	98.3
$60,000 - $74,999	99.1	99.4	99.2	99.5	98.3	98.8	98.3	98.9
$75,000 +	99.3	99.5	99.3	99.6	98.6	98.7	99.2	99.2
MARCH 2003								
TOTAL	95.5	96.3	96.2	96.9	91.0	92.1	92.3	93.2
UNDER $5,000	80.5	84.6	83.0	87.3	76.0	80.3	79.5	83.9
$5,000 - $7,499	86.5	88.2	86.6	88.6	83.6	85.0	81.0	82.1
$7,500 - $9,999	89.7	91.2	90.9	92.3	85.5	86.9	88.2	90.5
$10,000 - $12,499	91.6	92.6	92.2	93.2	87.8	89.4	87.9	89.3
$12,500 - $14,999	92.0	93.0	92.5	93.7	88.9	89.7	89.4	90.3
$15,000 - $19,999	93.6	94.8	94.7	95.6	88.9	90.8	90.6	91.4
$20,000 - $24,999	94.0	94.9	94.7	95.5	90.1	91.2	92.1	93.2
$25,000 - $29,999	95.8	96.5	96.2	96.8	94.2	94.8	93.3	93.5
$30,000 - $34,999	96.7	97.4	96.9	97.7	94.2	94.6	95.4	96.3
$35,000 - $39,999	98.0	98.5	98.3	98.8	96.0	96.3	98.6	98.6
$40,000 - $49,999	98.0	98.5	97.9	98.4	98.4	99.2	95.9	96.4
$50,000 - $59,999	98.6	99.1	98.8	99.2	97.4	98.2	97.5	98.3
$60,000 - $74,999	98.8	99.2	98.8	99.3	98.1	98.1	97.3	97.9
$75,000 +	99.3	99.6	99.4	99.6	99.3	99.6	98.8	99.1

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
JULY 2003								
TOTAL	95.2	96.1	96.0	96.8	90.5	91.8	91.4	92.7
UNDER $5,000	80.4	84.3	83.3	86.7	73.5	78.6	74.3	76.9
$5,000 - $7,499	85.8	87.6	86.4	87.8	83.2	85.9	81.7	83.6
$7,500 - $9,999	89.9	92.0	90.8	92.5	87.1	90.6	87.9	89.4
$10,000 - $12,499	89.5	91.6	90.5	92.7	84.3	86.9	89.0	89.8
$12,500 - $14,999	91.8	93.0	92.8	93.7	85.9	88.1	89.5	91.5
$15,000 - $19,999	93.1	95.0	93.8	95.7	89.8	91.0	88.1	91.3
$20,000 - $24,999	94.2	95.2	94.9	95.8	90.2	91.1	90.5	93.1
$25,000 - $29,999	96.0	97.0	96.2	97.2	95.6	96.6	94.0	94.8
$30,000 - $34,999	96.7	97.6	97.0	98.0	93.9	94.4	95.0	95.6
$35,000 - $39,999	97.7	98.4	97.7	98.4	97.5	98.0	97.5	98.4
$40,000 - $49,999	97.9	98.4	98.2	98.7	95.8	96.6	96.6	97.5
$50,000 - $59,999	98.5	99.0	98.5	99.0	98.9	98.9	96.6	97.8
$60,000 - $74,999	98.9	99.2	99.1	99.3	97.9	98.3	100.0	100.0
$75,000 +	99.3	99.5	99.3	99.6	98.4	98.7	98.9	99.3
NOVEMBER 2003								
TOTAL	94.7	95.5	95.5	96.2	89.7	90.9	90.5	91.5
UNDER $5,000	79.4	82.6	80.5	83.7	74.8	78.1	71.2	76.0
$5,000 - $7,499	83.6	85.8	84.7	86.3	81.0	84.0	77.8	80.7
$7,500 - $9,999	89.1	91.1	89.8	91.0	85.9	90.2	84.1	84.1
$10,000 - $12,499	89.8	91.4	90.4	92.1	87.6	88.8	82.0	83.8
$12,500 - $14,999	91.4	93.0	92.2	93.9	87.4	88.8	85.5	87.0
$15,000 - $19,999	91.9	93.0	92.7	93.6	87.7	89.2	89.8	90.7
$20,000 - $24,999	94.0	94.7	94.1	94.9	92.5	93.4	92.9	93.9
$25,000 - $29,999	95.1	96.2	95.4	96.3	93.5	94.8	93.1	93.6
$30,000 - $34,999	96.1	96.7	96.3	97.0	93.7	94.1	94.5	94.8
$35,000 - $39,999	97.4	98.2	97.5	98.3	98.1	98.3	95.2	95.9
$40,000 - $49,999	97.8	98.4	98.1	98.7	95.7	96.4	96.2	97.3
$50,000 - $59,999	98.3	98.8	98.4	99.0	97.1	97.4	96.2	97.7
$60,000 - $74,999	98.5	98.9	98.6	99.0	97.8	98.2	97.6	98.7
$75,000 +	98.4	98.9	98.6	99.2	95.2	95.2	100.0	100.0
2003 ANNUAL AVERAGE								
TOTAL	95.1	96.0	95.9	96.6	90.4	91.6	91.4	92.5
UNDER $5,000	80.1	83.8	82.3	85.9	74.8	79.0	75.0	78.9
$5,000 - $7,499	85.3	87.2	85.9	87.6	82.6	85.0	80.2	82.1
$7,500 - $9,999	89.6	91.4	90.5	91.9	86.2	89.2	86.7	88.0
$10,000 - $12,499	90.3	91.9	91.0	92.7	86.6	88.4	86.3	87.6
$12,500 - $14,999	91.7	93.0	92.5	93.8	87.4	88.9	88.1	89.6
$15,000 - $19,999	92.9	94.3	93.7	95.0	88.8	90.3	89.5	91.1
$20,000 - $24,999	94.1	94.9	94.6	95.4	90.9	91.9	91.8	93.4
$25,000 - $29,999	95.6	96.6	95.9	96.8	94.4	95.4	93.5	94.0
$30,000 - $34,999	96.5	97.2	96.7	97.6	93.9	94.4	95.0	95.6
$35,000 - $39,999	97.7	98.4	97.8	98.5	97.2	97.5	97.1	97.6
$40,000 - $49,999	97.9	98.4	98.1	98.6	96.6	97.4	96.2	97.1
$50,000 - $59,999	98.5	99.0	98.6	99.1	97.8	98.2	96.8	97.9
$60,000 - $74,999	98.7	99.1	98.8	99.2	97.9	98.2	98.3	98.9
$75,000 +	99.0	99.3	99.1	99.5	97.6	97.8	99.2	99.5

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
MARCH 2004								
TOTAL	94.2	95.1	94.9	95.7	90.1	91.1	90.5	91.6
UNDER $5,000	80.1	83.4	82.1	85.1	76.9	79.8	74.9	76.7
$5,000 - $7,499	85.1	86.8	84.4	85.9	86.7	88.8	83.9	85.1
$7,500 - $9,999	88.1	89.4	89.2	90.5	82.8	84.2	85.5	87.7
$10,000 - $12,499	90.2	91.7	90.8	91.8	88.5	91.3	85.3	85.9
$12,500 - $14,999	90.8	92.8	91.9	93.8	87.9	89.8	88.0	90.1
$15,000 - $19,999	91.2	92.6	92.1	93.4	88.8	90.4	88.1	89.7
$20,000 - $24,999	94.2	95.1	94.7	95.5	90.9	91.7	89.8	90.5
$25,000 - $29,999	94.5	95.6	94.7	95.8	94.0	94.5	93.9	95.1
$30,000 - $34,999	95.8	96.6	96.3	97.0	93.7	94.6	94.5	95.5
$35,000 - $39,999	96.1	96.9	96.3	97.2	95.7	95.7	94.4	96.5
$40,000 - $49,999	96.7	97.4	96.8	97.6	95.2	95.2	93.6	95.2
$50,000 - $59,999	97.9	98.2	98.3	98.6	95.7	95.7	96.8	97.8
$60,000 - $74,999	97.4	97.8	97.7	98.1	96.5	96.5	98.4	98.4
$75,000 +	98.2	98.7	98.2	98.8	97.9	97.9	97.3	98.5
JULY 2004								
TOTAL	93.8	94.7	94.7	95.6	87.4	88.9	90.2	91.6
UNDER $5,000	79.9	82.9	82.5	85.5	71.9	75.0	80.4	82.7
$5,000 - $7,499	84.8	86.5	86.0	87.4	81.7	84.3	79.1	81.0
$7,500 - $9,999	87.8	89.9	88.0	90.1	85.9	88.7	82.4	84.5
$10,000 - $12,499	89.3	91.0	91.2	93.0	80.9	82.2	85.4	87.8
$12,500 - $14,999	92.0	93.5	92.6	94.1	89.7	90.9	86.2	90.4
$15,000 - $19,999	91.7	93.4	92.9	94.4	85.6	87.7	87.9	90.5
$20,000 - $24,999	93.1	94.5	93.5	94.8	90.4	91.3	89.2	92.2
$25,000 - $29,999	94.5	95.9	95.4	96.4	90.7	92.9	93.8	95.2
$30,000 - $34,999	94.7	95.8	95.8	96.6	90.6	92.2	90.5	92.1
$35,000 - $39,999	96.0	96.5	96.5	96.7	92.1	94.0	96.4	96.5
$40,000 - $49,999	97.1	97.7	97.3	97.9	95.5	96.5	95.9	95.9
$50,000 - $59,999	97.1	97.7	97.2	97.9	95.8	95.9	94.0	94.2
$60,000 - $74,999	97.9	98.4	98.0	98.5	98.0	98.0	96.9	98.0
$75,000 +	98.1	98.6	98.3	98.7	98.1	98.0	97.9	98.4
NOVEMBER 2004								
TOTAL	93.5	94.6	94.3	95.3	88.2	90.0	90.3	91.5
UNDER $5,000	77.3	81.6	81.7	85.5	67.3	72.3	75.5	79.6
$5,000 - $7,499	83.0	85.5	82.9	85.6	83.7	85.8	79.5	80.7
$7,500 - $9,999	87.6	89.9	88.4	90.5	83.6	86.4	85.7	88.4
$10,000 - $12,499	89.6	90.8	90.3	91.5	87.4	88.2	86.5	88.5
$12,500 - $14,999	91.6	93.5	91.9	93.4	91.1	94.2	87.5	89.2
$15,000 - $19,999	91.7	93.3	93.1	94.4	86.3	89.2	89.4	90.2
$20,000 - $24,999	93.7	95.0	94.5	95.7	90.6	93.0	90.9	92.2
$25,000 - $29,999	94.4	96.1	94.9	96.1	90.9	95.3	94.7	96.5
$30,000 - $34,999	94.9	95.9	95.2	96.2	92.2	93.6	92.2	92.4
$35,000 - $39,999	95.3	96.5	95.8	96.8	92.4	94.0	95.0	95.7
$40,000 - $49,999	96.4	97.5	96.5	97.5	95.2	96.9	93.0	94.9
$50,000 - $59,999	97.0	97.6	96.9	97.5	98.5	99.1	96.4	96.5
$60,000 - $74,999	97.6	98.4	97.7	98.4	95.4	97.4	96.7	98.2
$75,000 +	98.0	98.5	98.0	98.6	98.3	98.3	98.5	98.5

Table 4
Percentage of Households with a Telephone by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
2004 ANNUAL AVERAGE								
TOTAL	93.8	94.8	94.6	95.5	88.6	90.0	90.3	91.6
UNDER $5,000	79.1	82.6	82.1	85.4	72.0	75.7	76.9	79.7
$5,000 - $7,499	84.3	86.3	84.4	86.3	84.0	86.3	80.8	82.3
$7,500 - $9,999	87.8	89.7	88.5	90.4	84.1	86.4	84.5	86.9
$10,000 - $12,499	89.7	91.2	90.8	92.1	85.6	87.2	85.7	87.4
$12,500 - $14,999	91.5	93.3	92.1	93.8	89.6	91.6	87.2	89.9
$15,000 - $19,999	91.5	93.1	92.7	94.1	86.9	89.1	88.5	90.1
$20,000 - $24,999	93.7	94.9	94.2	95.3	90.6	92.0	90.0	91.6
$25,000 - $29,999	94.5	95.9	95.0	96.1	91.9	94.2	94.1	95.6
$30,000 - $34,999	95.1	96.1	95.8	96.6	92.2	93.5	92.4	93.3
$35,000 - $39,999	95.8	96.6	96.2	96.9	93.4	94.6	95.3	96.2
$40,000 - $49,999	96.7	97.5	96.9	97.7	95.3	96.2	94.2	95.3
$50,000 - $59,999	97.3	97.8	97.5	98.0	96.7	96.9	95.7	96.2
$60,000 - $74,999	97.6	98.2	97.8	98.3	96.6	97.3	97.3	98.2
$75,000 +	98.1	98.6	98.2	98.7	98.1	98.1	97.9	98.5
MARCH 2005								
TOTAL	92.4	93.7	93.2	94.4	87.7	89.5	88.2	89.8
UNDER $5,000	80.4	84.7	82.0	86.2	77.8	82.0	76.3	79.8
$5,000 - $7,499	82.8	86.0	83.4	86.8	81.7	84.3	80.5	85.1
$7,500 - $9,999	86.4	88.9	87.4	89.2	83.7	87.9	83.8	84.6
$10,000 - $12,499	88.6	90.1	89.2	90.5	86.1	88.8	81.9	82.6
$12,500 - $14,999	90.3	91.9	91.6	93.2	84.6	86.4	84.0	85.9
$15,000 - $19,999	91.2	92.5	91.7	93.3	87.6	87.9	88.9	89.6
$20,000 - $24,999	92.0	93.4	92.8	93.9	89.2	91.9	88.8	89.9
$25,000 - $29,999	92.7	94.5	92.9	94.6	91.3	94.0	89.8	91.4
$30,000 - $34,999	93.9	95.3	94.9	96.2	88.3	90.2	90.5	92.2
$35,000 - $39,999	94.2	95.3	94.2	95.4	94.7	95.5	91.9	94.0
$40,000 - $49,999	95.9	96.7	96.0	96.9	95.0	96.2	93.1	94.7
$50,000 - $59,999	96.7	97.1	96.9	97.2	96.3	96.8	93.0	93.0
$60,000 - $74,999	96.8	97.8	97.0	97.9	94.9	96.0	97.5	99.9
$75,000 +	96.9	97.5	97.1	97.7	93.2	93.6	97.4	98.2

Table 5
Percentage of Households with a Telephone by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 1983								
TOTAL	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
1 PERSON	87.5	91.3	90.2	93.7	71.2	77.1	73.8	82.0
2 - 3	93.3	95.0	94.5	95.9	82.5	87.8	80.7	84.3
4 - 5	92.4	94.2	93.6	95.0	83.1	87.3	83.4	86.2
6 +	86.6	88.9	90.5	92.2	74.5	78.5	81.0	84.0
1984 ANNUAL AVERAGE								
TOTAL	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
1 PERSON	88.3	91.8	90.3	93.4	74.9	80.7	72.9	79.4
2 - 3	93.2	94.9	94.5	95.9	82.3	86.8	82.0	85.2
4 - 5	92.5	94.0	93.9	95.1	81.8	85.7	83.9	86.2
6 +	86.9	88.8	89.8	91.1	76.3	80.1	79.2	81.8
1985 ANNUAL AVERAGE								
TOTAL	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
1 PERSON	87.6	91.2	89.9	93.1	73.6	79.8	71.9	78.5
2 - 3	93.5	95.0	94.5	95.8	84.9	87.9	83.6	86.0
4 - 5	94.2	95.3	95.2	96.1	87.6	90.4	85.6	87.0
6 +	90.3	91.8	92.8	93.6	81.3	84.9	85.6	86.1
1986 ANNUAL AVERAGE								
TOTAL	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
1 PERSON	88.1	91.4	90.4	93.2	75.4	81.0	73.9	79.3
2 - 3	94.0	95.3	95.0	96.1	85.3	88.9	83.1	85.4
4 - 5	94.4	95.3	95.4	96.1	87.9	90.4	85.5	86.7
6 +	90.1	91.5	92.9	93.5	77.8	82.8	83.3	84.1
1987 ANNUAL AVERAGE								
TOTAL	92.4	94.2	93.8	95.4	81.8	85.9	83.0	85.4
1 PERSON	89.5	92.7	91.3	94.1	77.8	83.1	79.5	83.5
2 - 3	93.9	95.3	95.1	96.3	83.9	87.3	83.8	86.3
4 - 5	93.0	94.5	94.3	95.4	83.6	87.4	84.4	86.4
6 +	87.4	89.1	89.8	91.0	77.4	81.5	80.6	81.6
1988 ANNUAL AVERAGE								
TOTAL	92.7	94.5	94.1	95.6	83.0	86.8	82.1	85.1
1 PERSON	88.4	91.7	90.6	93.5	76.4	82.0	74.4	79.5
2 - 3	94.5	95.7	95.4	96.4	86.8	89.7	84.2	86.9
4 - 5	94.9	95.8	95.8	96.5	89.0	90.7	84.4	85.6
6 +	92.8	94.3	93.7	94.9	87.2	90.6	86.1	88.0
1989 ANNUAL AVERAGE								
TOTAL	93.1	94.9	94.5	95.9	83.2	87.1	83.0	86.0
1 PERSON	90.0	93.0	91.9	94.6	79.1	83.8	75.5	81.3
2 - 3	94.5	95.8	95.6	96.7	85.8	89.3	84.3	87.3
4 - 5	94.5	95.5	95.7	96.4	85.7	88.8	86.9	88.5
6 +	90.5	92.0	92.7	93.8	82.4	85.8	84.9	86.5

Table 5
Percentage of Households with a Telephone by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1990 ANNUAL AVERAGE								
TOTAL	93.3	95.0	94.6	96.1	83.5	87.0	82.7	85.3
1 PERSON	90.9	93.7	92.5	95.1	80.2	84.8	76.2	80.5
2 - 3	94.7	96.0	95.8	96.9	86.0	89.0	84.2	86.7
4 - 5	93.6	95.0	95.0	96.1	84.0	87.1	84.6	86.8
6 +	87.8	89.6	90.2	91.5	78.5	81.8	80.6	81.8
1991 ANNUAL AVERAGE								
TOTAL	93.4	95.1	94.8	96.2	83.5	87.2	84.1	87.7
1 PERSON	91.1	93.9	92.8	95.3	79.8	84.9	77.7	83.3
2 - 3	94.9	96.2	96.0	97.1	85.8	88.9	86.2	88.4
4 - 5	93.7	95.0	95.1	96.1	84.3	87.4	85.1	87.5
6 +	88.8	90.4	90.5	91.8	81.0	83.9	82.0	83.3
1992 ANNUAL AVERAGE								
TOTAL	93.8	95.3	95.2	96.4	84.2	87.9	85.8	88.2
1 PERSON	91.8	94.1	93.4	95.4	81.4	86.1	81.3	85.4
2 - 3	95.1	96.3	96.2	97.2	86.1	89.2	86.3	88.9
4 - 5	93.9	95.2	95.3	96.2	84.4	88.0	87.4	89.2
6 +	89.9	91.4	91.7	92.7	82.8	85.4	85.7	86.6
1993 ANNUAL AVERAGE								
TOTAL	94.2	95.6	95.5	96.6	85.2	88.3	86.7	88.8
1 PERSON	92.3	94.6	93.9	95.8	82.5	86.8	81.9	86.4
2 - 3	95.3	96.4	96.3	97.2	87.1	89.6	87.3	89.1
4 - 5	94.5	95.6	95.9	96.7	85.7	88.3	88.4	90.2
6 +	89.9	91.5	92.0	93.0	81.2	84.9	85.7	87.1
1994 ANNUAL AVERAGE								
TOTAL	93.8	95.4	95.1	96.4	85.7	89.4	86.0	88.3
1 PERSON	91.8	94.2	93.4	95.4	82.2	86.7	82.1	85.9
2 - 3	95.0	96.2	96.0	97.0	87.9	91.1	86.6	88.9
4 - 5	94.2	95.6	95.5	96.6	86.6	89.9	88.1	89.5
6 +	89.4	91.7	91.3	93.1	82.3	86.9	83.4	85.9
1995 ANNUAL AVERAGE								
TOTAL	93.9	95.2	95.2	96.2	86.2	89.2	85.9	87.8
1 PERSON	91.6	93.4	93.2	94.6	82.1	85.9	80.6	82.7
2 - 3	95.2	96.1	96.2	96.9	88.2	90.7	86.4	88.2
4 - 5	94.5	95.6	95.6	96.5	87.9	90.5	88.0	89.8
6 +	90.4	92.3	92.0	93.6	84.4	87.8	85.2	87.1
1996 ANNUAL AVERAGE								
TOTAL	93.9	95.0	94.9	95.8	87.3	89.8	86.4	88.0
1 PERSON	91.5	93.1	92.7	94.2	83.8	86.5	80.5	83.4
2 - 3	95.2	96.1	96.1	96.7	88.9	91.5	87.5	88.9
4 - 5	94.5	95.5	95.3	96.1	88.9	91.3	87.8	89.5
6 +	89.8	91.1	91.1	92.1	84.6	87.5	85.4	86.5

Table 5
Percentage of Households with a Telephone by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1997 ANNUAL AVERAGE								
TOTAL	93.9	95.0	95.0	95.9	86.9	89.5	86.7	88.6
1 PERSON	91.4	93.1	92.8	94.3	83.3	86.3	80.1	83.7
2 - 3	95.0	96.0	95.9	96.6	89.2	91.4	87.6	89.4
4 - 5	94.8	95.8	95.9	96.6	87.9	90.5	89.1	90.3
6 +	90.3	91.7	91.9	92.9	83.0	86.2	85.7	87.6
1998 ANNUAL AVERAGE								
TOTAL	94.1	95.2	95.1	96.0	87.9	89.7	88.4	90.0
1 PERSON	91.4	92.9	92.9	94.3	82.8	85.2	81.9	84.5
2 - 3	95.4	96.2	96.1	96.8	90.5	92.1	89.5	91.0
4 - 5	94.9	95.7	95.7	96.4	89.5	90.9	89.9	91.3
6 +	91.8	92.9	92.7	93.6	87.9	89.9	88.4	89.4
1999 ANNUAL AVERAGE								
TOTAL	94.2	95.0	95.2	95.9	87.7	89.6	89.9	90.9
1 PERSON	90.9	92.4	92.6	93.8	82.1	84.9	82.7	84.4
2 - 3	95.4	96.1	96.1	96.7	90.3	91.8	90.1	91.3
4 - 5	95.6	96.2	96.4	96.9	90.6	92.0	92.5	93.4
6 +	92.2	93.4	93.4	94.4	85.9	88.5	90.3	90.8
2000 ANNUAL AVERAGE								
TOTAL	94.4	95.2	95.2	95.9	89.3	90.7	90.5	91.6
1 PERSON	91.5	92.8	92.8	94.0	84.4	86.5	84.0	86.2
2 - 3	95.4	96.1	96.0	96.6	91.0	92.1	90.5	91.6
4 - 5	95.6	96.2	96.2	96.7	91.7	92.9	92.6	93.4
6 +	93.4	94.4	93.8	94.7	91.5	92.7	92.1	93.0
2001 ANNUAL AVERAGE								
TOTAL	94.9	95.7	95.6	96.4	90.0	91.4	91.3	92.4
1 PERSON	92.0	93.4	93.1	94.4	85.8	87.8	84.9	87.1
2 - 3	95.8	96.4	96.4	96.9	91.7	93.0	91.2	92.2
4 - 5	96.3	96.9	96.8	97.5	92.2	93.2	93.8	94.7
6 +	94.2	95.0	94.8	95.4	91.3	92.6	92.2	92.7
2002 ANNUAL AVERAGE								
TOTAL	95.3	96.2	96.2	96.9	90.1	91.6	91.7	92.9
1 PERSON	92.7	94.0	94.0	95.2	85.7	87.5	86.7	88.2
2 - 3	96.2	96.9	96.9	97.5	91.8	93.1	91.5	92.7
4 - 5	96.6	97.3	97.1	97.7	92.8	94.1	93.8	94.8
6 +	94.9	95.7	95.4	96.1	92.1	93.4	93.1	94.1
MARCH 2003								
TOTAL	95.5	96.3	96.2	96.9	91.0	92.1	92.3	93.2
1 PERSON	92.6	93.8	93.7	94.9	86.4	87.7	84.5	87.0
2 - 3	96.6	97.2	97.2	97.7	92.7	93.7	93.1	93.7
4 - 5	97.0	97.4	97.4	97.8	93.9	94.6	95.0	95.3
6 +	94.2	95.2	94.5	95.4	92.5	94.1	91.8	93.7

Table 5
Percentage of Households with a Telephone by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
JULY 2003								
TOTAL	95.2	96.1	96.0	96.8	90.5	91.8	91.4	92.7
1 PERSON	92.1	93.4	93.3	94.6	85.1	86.7	84.1	86.1
2 - 3	96.3	97.1	96.9	97.6	92.4	93.6	91.5	93.2
4 - 5	96.9	97.5	97.3	97.9	94.0	95.1	94.1	95.0
6 +	95.3	95.7	95.8	96.0	92.1	93.6	93.7	93.7
NOVEMBER 2003								
TOTAL	94.7	95.5	95.5	96.2	89.7	90.9	90.5	91.5
1 PERSON	91.7	93.1	93.0	94.3	84.4	85.9	82.3	84.4
2 - 3	95.7	96.4	96.4	96.9	91.6	92.7	91.3	92.3
4 - 5	96.2	96.8	96.6	97.1	93.4	94.4	92.8	93.4
6 +	93.7	94.4	94.6	95.3	89.8	90.8	92.0	92.8
2003 ANNUAL AVERAGE								
TOTAL	95.1	96.0	95.9	96.6	90.4	91.6	91.4	92.5
1 PERSON	92.1	93.4	93.3	94.6	85.3	86.8	83.6	85.8
2 - 3	96.2	96.9	96.8	97.4	92.2	93.3	92.0	93.1
4 - 5	96.7	97.2	97.1	97.6	93.8	94.7	94.0	94.6
6 +	94.4	95.1	95.0	95.6	91.5	92.8	92.5	93.4
MARCH 2004								
TOTAL	94.2	95.1	94.9	95.7	90.1	91.1	90.5	91.6
1 PERSON	90.8	92.1	92.1	93.4	84.2	85.6	82.8	85.0
2 - 3	95.4	96.1	95.9	96.6	92.4	92.9	91.6	92.9
4 - 5	95.8	96.2	96.0	96.4	93.5	94.5	92.4	93.1
6+	94.7	95.3	94.7	95.2	93.2	94.8	91.5	92.5
JULY 2004								
TOTAL	93.8	94.7	94.7	95.6	87.4	88.9	90.2	91.6
1 PERSON	90.1	91.6	91.7	93.1	82.0	83.8	82.4	85.2
2 - 3	94.9	95.7	95.7	96.3	89.5	91.1	89.8	91.1
4 - 5	95.7	96.3	96.6	97.1	90.1	91.4	94.0	94.9
6+	94.5	95.3	94.4	95.3	93.8	93.8	92.7	93.7
NOVEMBER 2004								
TOTAL	93.5	94.6	94.3	95.3	88.2	90.0	90.3	91.5
1 PERSON	89.8	91.6	91.1	92.8	83.0	84.9	83.7	85.9
2 - 3	94.6	95.6	95.4	96.2	89.4	91.3	90.7	92.0
4 - 5	95.6	96.3	96.0	96.5	92.5	94.4	92.4	93.0
6 +	93.8	94.5	94.5	95.0	92.2	92.7	92.9	93.5
2004 ANNUAL AVERAGE								
TOTAL	93.8	94.8	94.6	95.5	88.6	90.0	90.3	91.6
1 PERSON	90.2	91.8	91.6	93.1	83.1	84.8	83.0	85.4
2 - 3	95.0	95.8	95.7	96.4	90.4	91.8	90.7	92.0
4 - 5	95.7	96.3	96.2	96.7	92.0	93.4	92.9	93.7
6 +	94.3	95.0	94.5	95.2	93.1	93.8	92.4	93.2

Table 5
Percentage of Households with a Telephone by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
MARCH 2005								
TOTAL	92.4	93.7	93.2	94.4	87.7	89.5	88.2	89.8
1 PERSON	89.0	90.8	90.3	91.9	82.7	85.1	83.2	85.4
2 - 3	93.4	94.5	94.0	95.1	89.5	91.0	86.7	88.4
4 - 5	94.5	95.5	95.0	95.9	91.6	92.5	92.1	93.3
6+	92.7	93.7	93.0	93.8	90.3	92.2	89.9	90.9

Table 6
Percentage of Households with a Telephone by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 1983								
TOTAL HOUSEHOLDS	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
16-24 YRS OLD	76.6	84.1	80.2	86.2	49.9	68.2	64.9	71.9
25-54 YRS OLD	91.5	93.7	93.4	95.2	78.7	83.3	81.8	85.6
55-59 YRS OLD	95.0	96.1	96.1	97.0	86.3	88.5	89.3	89.3
60-64 YRS OLD	95.5	96.4	96.4	97.2	89.5	90.7	87.3	90.2
65-69 YRS OLD	95.5	96.2	96.5	97.0	87.2	89.0	90.7	90.7
70-99 YRS OLD	95.4	96.5	96.0	97.0	90.1	92.3	85.5	89.1
1984 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
16-24 YRS OLD	77.0	83.6	79.6	85.4	58.2	70.8	60.9	69.2
25-54 YRS OLD	91.7	93.7	93.4	95.1	79.6	84.1	83.1	85.7
55-59 YRS OLD	94.9	96.1	96.1	97.1	86.6	89.2	87.1	90.1
60-64 YRS OLD	94.9	96.0	96.0	97.0	86.6	88.8	87.1	89.1
65-69 YRS OLD	96.2	96.8	97.1	97.6	87.9	89.9	90.2	91.5
70-99 YRS OLD	95.3	96.5	96.0	97.1	88.2	90.9	84.4	87.6
1985 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
16-24 YRS OLD	77.9	83.8	80.3	85.8	60.0	69.4	64.8	70.8
25-54 YRS OLD	91.9	93.9	93.5	95.2	80.7	85.0	82.5	85.2
55-59 YRS OLD	94.9	96.0	95.8	96.8	87.8	90.0	87.4	89.2
60-64 YRS OLD	94.9	95.9	95.8	96.5	88.4	90.2	89.7	91.3
65-69 YRS OLD	95.9	96.8	96.8	97.5	88.2	90.9	89.1	91.7
70-99 YRS OLD	95.5	96.6	96.2	97.3	89.1	90.7	87.6	90.9
1986 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
16-24 YRS OLD	79.0	84.4	81.5	85.9	59.8	72.2	63.4	67.4
25-54 YRS OLD	92.2	94.0	93.8	95.3	81.1	85.2	82.9	85.5
55-59 YRS OLD	95.2	96.3	96.1	97.0	88.0	91.3	87.6	90.4
60-64 YRS OLD	95.4	96.2	96.2	97.0	88.9	90.4	89.1	90.3
65-69 YRS OLD	95.8	96.7	96.7	97.4	88.4	90.6	90.4	91.9
70-99 YRS OLD	96.0	97.0	96.5	97.4	91.3	92.9	87.5	89.8
1987 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	92.4	94.2	93.8	95.4	81.8	85.9	83.0	85.4
16-24 YRS OLD	78.9	84.4	81.4	86.1	61.8	72.3	65.2	70.8
25-54 YRS OLD	92.3	94.2	93.9	95.4	81.4	85.5	84.4	86.5
55-59 YRS OLD	95.2	96.2	96.4	97.2	87.0	89.6	89.1	90.7
60-64 YRS OLD	95.7	96.4	96.6	97.3	88.0	90.2	90.9	92.0
65-69 YRS OLD	95.9	96.7	97.0	97.5	87.1	89.3	88.8	88.8
70-99 YRS OLD	96.0	97.0	96.5	97.5	91.9	93.0	91.6	93.1
1988 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	92.7	94.5	94.1	95.6	83.0	86.8	82.1	85.1
16-24 YRS OLD	80.2	85.1	82.3	86.8	65.6	73.5	64.0	70.9
25-54 YRS OLD	92.6	94.4	94.1	95.6	82.2	86.3	83.5	86.1
55-59 YRS OLD	95.1	96.4	96.1	97.2	88.3	91.0	88.5	89.9
60-64 YRS OLD	95.3	96.2	96.3	97.0	87.6	89.9	87.3	90.0
65-69 YRS OLD	96.4	97.1	97.2	97.7	89.6	92.0	89.6	91.2
70-99 YRS OLD	96.2	97.5	96.7	97.9	92.3	93.9	92.2	94.3

Table 6
Percentage of Households with a Telephone by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1989 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.1	94.9	94.5	95.9	83.2	87.1	83.0	86.0
16-24 YRS OLD	80.5	85.9	82.9	87.7	65.3	75.2	64.8	72.3
25-54 YRS OLD	92.7	94.6	94.3	95.8	82.2	86.4	83.6	86.5
55-59 YRS OLD	95.4	96.5	96.4	97.4	88.7	90.7	90.1	91.2
60-64 YRS OLD	95.7	96.7	96.6	97.3	89.2	91.6	89.8	90.0
65-69 YRS OLD	96.3	97.0	97.1	97.7	90.3	91.9	88.8	91.0
70-99 YRS OLD	96.4	97.4	97.1	97.9	91.1	92.6	89.8	92.0
1990 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.3	95.0	94.6	96.1	83.5	87.0	82.7	85.3
16-24 YRS OLD	81.2	86.5	83.6	88.2	66.4	75.3	67.8	73.5
25-54 YRS OLD	92.6	94.5	94.1	95.7	82.4	86.1	82.0	84.6
55-59 YRS OLD	95.4	96.4	96.5	97.4	87.3	89.6	89.9	90.7
60-64 YRS OLD	96.2	96.9	97.1	97.6	89.7	91.6	90.6	91.1
65-69 YRS OLD	96.3	97.1	97.0	97.8	90.7	91.7	90.7	92.5
70-99 YRS OLD	96.9	97.8	97.4	98.3	91.9	93.3	93.2	94.1
1991 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.4	95.1	94.8	96.2	83.5	87.2	84.1	86.7
16-24 YRS OLD	81.0	86.1	83.4	88.0	65.7	74.5	68.5	73.9
25-54 YRS OLD	92.7	94.6	94.3	95.8	82.3	86.3	84.1	86.7
55-59 YRS OLD	95.5	96.7	96.5	97.5	88.0	90.9	89.8	90.5
60-64 YRS OLD	95.9	96.9	96.9	97.6	88.5	90.8	88.3	90.4
65-69 YRS OLD	96.7	97.5	97.5	98.2	89.8	91.8	92.9	94.0
70-99 YRS OLD	97.3	98.1	97.8	98.6	92.8	93.5	92.1	94.0
1992 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.8	95.3	95.2	96.4	84.2	87.9	85.8	88.2
15-24 YRS OLD	82.0	87.4	85.0	89.6	64.2	74.1	72.8	80.4
25-54 YRS OLD	93.1	94.8	94.6	95.9	82.9	87.0	85.5	87.7
55-59 YRS OLD	96.0	96.8	97.0	97.5	89.6	91.9	91.5	92.3
60-64 YRS OLD	96.3	97.1	97.0	97.7	91.2	92.6	89.3	91.2
65-69 YRS OLD	96.6	97.3	97.5	98.0	89.8	92.0	92.0	92.4
70-99 YRS OLD	97.5	98.0	98.0	98.5	93.1	94.0	94.2	95.0
1993 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	94.2	95.6	95.5	96.6	85.2	88.3	86.7	88.8
15-24 YRS OLD	83.3	87.3	85.7	89.2	70.1	77.3	71.8	76.3
25-54 YRS OLD	93.5	95.1	95.0	96.3	83.5	87.0	86.4	88.7
55-59 YRS OLD	95.9	96.8	96.7	97.5	90.0	92.2	91.3	92.1
60-64 YRS OLD	97.0	97.6	97.7	98.3	91.9	93.3	92.5	93.7
65-69 YRS OLD	97.0	97.6	97.5	98.1	92.8	93.5	92.9	93.9
70-99 YRS OLD	97.6	98.2	98.0	98.6	93.2	94.1	94.7	95.4
1994 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.8	95.4	95.1	96.4	85.7	89.4	86.0	88.3
15-24 YRS OLD	84.3	89.2	86.1	90.4	74.0	83.0	71.8	77.1
25-54 YRS OLD	93.3	95.0	94.7	96.0	84.8	88.7	86.1	88.4
55-59 YRS OLD	95.6	96.6	96.3	97.2	90.7	92.9	89.4	91.1
60-64 YRS OLD	96.3	97.2	97.1	97.9	90.1	91.9	91.8	92.4
65-69 YRS OLD	96.7	97.3	97.3	97.8	91.8	93.2	93.3	93.5
70-99 YRS OLD	96.7	97.6	97.2	98.1	91.7	93.1	92.3	93.7

Table 6
Percentage of Households with a Telephone by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1995 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.9	95.2	95.2	96.2	86.2	89.2	85.9	87.8
15-24 YRS OLD	84.6	88.5	87.0	90.2	73.2	80.6	74.8	78.0
25-54 YRS OLD	93.6	94.9	95.0	96.0	85.4	88.5	86.1	88.0
55-59 YRS OLD	95.7	96.4	96.2	96.8	92.5	93.9	88.6	90.0
60-64 YRS OLD	95.8	96.5	96.3	96.9	91.7	93.4	90.0	90.9
65-69 YRS OLD	96.4	96.8	96.9	97.4	92.2	93.1	91.2	92.6
70-99 YRS OLD	96.4	97.1	97.0	97.5	91.4	92.8	90.4	92.1
1996 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.9	95.0	94.9	95.8	87.3	89.8	86.4	88.0
15-24 YRS OLD	84.9	88.4	86.8	89.6	74.5	81.2	72.9	76.4
25-54 YRS OLD	93.5	94.8	94.6	95.6	86.6	89.4	87.1	88.8
55-59 YRS OLD	95.7	96.3	96.3	96.8	91.0	92.5	90.3	90.7
60-64 YRS OLD	95.7	96.2	96.3	96.8	92.0	93.0	88.2	88.8
65-69 YRS OLD	95.8	96.3	96.4	96.8	92.5	93.3	89.5	90.4
70-99 YRS OLD	96.5	97.0	96.8	97.3	93.5	94.3	90.9	92.3
1997 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.9	95.0	95.0	95.9	86.9	89.5	86.7	88.6
15-24 YRS OLD	84.9	88.8	86.7	90.1	74.9	81.6	75.0	79.4
25-54 YRS OLD	93.6	94.8	94.7	95.7	86.3	89.0	87.1	88.9
55-59 YRS OLD	95.4	96.1	96.4	96.9	89.2	90.8	90.1	92.2
60-64 YRS OLD	96.0	96.5	96.6	97.0	92.1	92.7	90.6	91.2
65-69 YRS OLD	96.2	96.7	96.7	97.1	92.6	93.8	90.9	92.4
70-99 YRS OLD	96.2	96.7	96.6	97.1	93.0	93.7	90.3	91.3
1998 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	94.1	95.2	95.1	96.0	87.9	89.7	88.4	90.0
15-24 YRS OLD	87.0	89.8	88.4	91.0	79.9	83.8	80.0	83.5
25-54 YRS OLD	93.8	94.9	94.8	95.8	87.2	89.2	88.5	89.9
55-59 YRS OLD	95.6	96.2	96.2	96.8	91.5	92.5	91.4	92.8
60-64 YRS OLD	95.8	96.3	96.5	97.0	91.8	92.8	91.2	92.6
65-69 YRS OLD	95.7	96.3	96.5	97.0	90.2	90.7	95.1	95.8
70-99 YRS OLD	96.3	96.8	96.7	97.1	93.1	93.8	91.0	91.9
1999 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	94.2	95.0	95.2	95.9	87.7	89.6	89.9	90.9
15-24 YRS OLD	86.4	88.9	88.2	90.2	77.5	82.3	81.0	83.1
25-54 YRS OLD	94.0	94.9	95.1	95.9	87.5	89.5	90.2	91.3
55-59 YRS OLD	95.7	96.3	96.4	96.9	90.5	91.5	93.1	94.3
60-64 YRS OLD	95.7	96.2	96.4	96.8	90.9	92.0	92.2	92.8
65-69 YRS OLD	95.9	96.3	96.6	97.0	90.0	91.1	94.1	94.8
70-99 YRS OLD	95.8	96.3	96.2	96.7	92.2	92.8	92.4	93.1
2000 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	94.4	95.2	95.2	95.9	89.3	90.7	90.5	91.6
15-24 YRS OLD	87.8	90.1	89.0	91.3	81.2	84.1	81.9	84.4
25-54 YRS OLD	94.2	95.1	95.1	95.9	89.2	90.7	91.1	92.1
55-59 YRS OLD	95.8	96.3	96.2	96.7	91.8	92.5	91.1	92.0
60-64 YRS OLD	95.8	96.2	96.5	96.7	91.2	92.0	92.3	93.2
65-69 YRS OLD	95.8	96.1	96.3	96.5	92.8	93.2	94.5	94.7
70-99 YRS OLD	95.7	96.1	96.1	96.5	91.6	92.4	92.1	92.7

Table 6
Percentage of Households with a Telephone by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
2001 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	94.9	95.7	95.6	96.4	90.0	91.4	91.3	92.4
15-24 YRS OLD	88.8	91.0	89.4	91.5	85.6	88.1	83.5	85.6
25-54 YRS OLD	94.7	95.6	95.5	96.3	89.4	91.0	91.8	92.9
55-59 YRS OLD	96.4	96.9	96.8	97.2	93.1	94.3	93.3	94.3
60-64 YRS OLD	96.2	96.6	96.7	97.0	93.0	94.1	94.4	95.0
65-69 YRS OLD	96.4	96.8	97.1	97.4	92.0	92.7	94.1	94.3
70-99 YRS OLD	96.3	96.8	96.7	97.2	93.2	93.7	91.9	92.6
2002 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	95.3	96.2	96.2	96.9	90.1	91.6	91.7	92.9
15-24 YRS OLD	88.5	91.0	89.5	91.9	83.4	86.7	84.2	86.7
25-54 YRS OLD	95.0	95.9	95.9	96.7	89.6	91.1	92.0	93.2
55-59 YRS OLD	96.8	97.4	97.4	97.9	92.2	93.2	93.9	94.6
60-64 YRS OLD	96.9	97.4	97.2	97.7	94.8	95.4	93.0	93.5
65-69 YRS OLD	97.5	97.8	98.0	98.1	94.3	95.3	95.1	95.1
70-99 YRS OLD	97.2	97.6	97.7	98.0	93.7	94.4	94.9	95.3
MARCH 2003								
TOTAL HOUSEHOLDS	95.5	96.3	96.2	96.9	91.0	92.1	92.3	93.2
15-24 YRS OLD	90.4	92.4	91.4	93.2	87.6	90.1	88.1	89.8
25-54 YRS OLD	95.1	95.9	95.9	96.6	90.2	91.4	92.6	93.5
55-59 YRS OLD	96.9	97.4	97.3	97.7	93.6	94.6	93.3	93.7
60-64 YRS OLD	97.3	97.6	97.9	98.2	92.7	93.1	93.7	94.1
65-69 YRS OLD	97.0	97.4	97.7	98.0	92.3	92.3	94.2	94.2
70-99 YRS OLD	97.2	97.6	97.5	97.8	95.0	95.2	92.0	93.8
JULY 2003								
TOTAL HOUSEHOLDS	95.2	96.1	96.0	96.8	90.5	91.8	91.4	92.7
15-24 YRS OLD	86.9	89.8	87.6	90.0	83.0	87.2	83.7	86.6
25-54 YRS OLD	95.1	96.0	95.8	96.7	90.4	91.5	91.8	93.1
55-59 YRS OLD	96.7	97.2	97.1	97.6	94.4	94.9	92.5	94.5
60-64 YRS OLD	96.6	97.3	97.4	98.0	90.3	92.0	96.5	96.7
65-69 YRS OLD	97.4	97.7	97.8	98.0	95.9	95.9	93.8	93.8
70-99 YRS OLD	97.1	97.5	97.7	98.0	91.7	93.0	92.9	93.3
NOVEMBER 2003								
TOTAL HOUSEHOLDS	94.7	95.5	95.5	96.2	89.7	90.9	90.5	91.5
15-24 YRS OLD	86.5	89.0	87.7	89.9	80.1	83.6	83.2	85.4
25-54 YRS OLD	94.3	95.2	95.0	95.9	89.5	90.7	91.1	91.9
55-59 YRS OLD	96.9	97.4	97.5	98.0	93.3	93.3	92.1	93.3
60-64 YRS OLD	96.5	97.0	97.2	97.6	93.3	93.9	93.5	94.0
65-69 YRS OLD	96.7	97.0	97.4	97.6	91.4	91.7	94.8	95.9
70-99 YRS OLD	97.0	97.4	97.4	97.8	93.5	94.0	90.7	91.8
2003 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	95.1	96.0	95.9	96.6	90.4	91.6	91.4	92.5
15-24 YRS OLD	87.9	90.4	88.9	91.0	83.6	87.0	85.0	87.3
25-54 YRS OLD	94.8	95.7	95.6	96.4	90.0	91.2	91.8	92.8
55-59 YRS OLD	96.8	97.3	97.3	97.8	93.8	94.3	92.6	93.8
60-64 YRS OLD	96.8	97.3	97.5	97.9	92.1	93.0	94.6	94.9
65-69 YRS OLD	97.0	97.4	97.6	97.9	93.2	93.3	94.3	94.6
70-99 YRS OLD	97.1	97.5	97.5	97.9	93.4	94.1	91.9	93.0

Table 6
Percentage of Households with a Telephone by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
MARCH 2004								
TOTAL HOUSEHOLDS	94.2	95.1	94.9	95.7	90.1	91.1	90.5	91.6
15-24 YRS OLD	87.0	89.6	87.4	89.5	85.9	88.1	85.1	87.2
25-54 YRS OLD	93.9	94.8	94.6	95.5	90.1	91.1	90.5	91.7
55-59 YRS OLD	95.0	95.5	95.7	96.1	90.1	90.5	91.5	92.0
60-64 YRS OLD	96.0	96.4	96.7	97.0	90.6	90.9	94.7	95.7
65-69 YRS OLD	95.5	96.2	96.0	96.7	91.4	91.7	92.4	93.4
70-99 YRS OLD	96.6	97.0	96.9	97.3	92.8	93.9	93.4	93.9
JULY 2004								
TOTAL HOUSEHOLDS	93.8	94.7	94.7	95.6	87.4	88.9	90.2	91.6
15-24 YRS OLD	87.6	90.5	88.8	91.3	81.5	85.8	82.0	84.6
25-54 YRS OLD	93.3	94.4	94.4	95.3	86.7	88.3	90.8	92.2
55-59 YRS OLD	95.1	95.7	95.8	96.5	89.9	90.6	91.4	92.5
60-64 YRS OLD	94.9	95.5	95.7	96.3	88.3	89.0	92.2	93.2
65-69 YRS OLD	96.8	97.0	97.2	97.2	94.6	94.6	94.6	95.5
70-99 YRS OLD	95.7	96.1	96.3	96.7	91.2	91.7	92.2	92.2
NOVEMBER 2004								
TOTAL HOUSEHOLDS	93.5	94.6	94.3	95.3	88.2	90.0	90.3	91.5
15-24 YRS OLD	84.6	88.2	85.9	89.3	77.6	82.2	82.7	85.8
25-54 YRS OLD	93.3	94.6	94.2	95.3	88.0	90.1	91.0	92.1
55-59 YRS OLD	95.4	96.0	96.1	96.8	90.0	90.5	92.9	93.4
60-64 YRS OLD	94.9	95.3	95.6	96.0	88.9	89.2	92.1	92.5
65-69 YRS OLD	95.9	96.2	95.9	96.3	96.9	96.9	94.0	94.0
70-99 YRS OLD	95.4	95.9	95.8	96.2	91.5	92.4	89.8	90.5
2004 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	93.8	94.8	94.6	95.5	88.6	90.0	90.3	91.6
15-24 YRS OLD	86.4	89.4	87.4	90.0	81.7	85.4	83.3	85.9
25-54 YRS OLD	93.5	94.6	94.4	95.4	88.3	89.8	90.8	92.0
55-59 YRS OLD	95.2	95.7	95.9	96.5	90.0	90.5	91.9	92.6
60-64 YRS OLD	95.3	95.7	96.0	96.4	89.3	89.7	93.0	93.8
65-69 YRS OLD	96.1	96.5	96.4	96.7	94.3	94.4	93.7	94.3
70-99 YRS OLD	95.9	96.3	96.3	96.7	91.8	92.7	91.8	92.2
MARCH 2005								
TOTAL HOUSEHOLDS	92.4	93.7	93.2	94.4	87.7	89.5	88.2	89.8
15-24 YRS OLD	85.5	88.1	87.1	89.2	78.8	83.4	79.2	80.4
25-54 YRS OLD	92.2	93.6	92.9	94.2	87.8	89.4	89.0	90.7
55-59 YRS OLD	93.4	94.4	93.8	94.7	90.2	92.2	88.2	91.3
60-64 YRS OLD	94.0	94.9	94.9	95.7	88.9	90.1	92.3	92.6
65-69 YRS OLD	94.8	95.6	95.8	96.4	89.4	90.5	90.8	91.0
70-99 YRS OLD	93.9	94.7	94.2	95.1	91.2	92.0	90.4	91.0

Table 7
Percentage of Adults with a Telephone by Labor Force Status

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 1983								
TOTAL CNP	92.8	94.5	94.1	95.6	82.7	86.6	83.4	86.5
EMPLOYED	94.1	95.9	95.0	96.6	85.7	89.8	86.3	89.6
UNEMPLOYED	82.5	86.5	84.8	88.1	74.6	81.2	76.6	79.9
NOT IN LABOR FORCE	92.1	93.4	93.8	94.9	80.8	83.7	80.4	83.0
1984 ANNUAL AVERAGE								
TOTAL CNP	92.8	94.5	94.1	95.5	82.9	86.7	83.0	85.6
EMPLOYED	94.0	95.7	95.0	96.4	85.9	89.8	85.7	88.3
UNEMPLOYED	81.7	85.3	84.0	87.0	74.7	80.2	74.0	77.4
NOT IN LABOR FORCE	92.1	93.5	93.8	95.0	80.7	83.9	80.3	82.8
1985 ANNUAL AVERAGE								
TOTAL CNP	93.0	94.6	94.2	95.6	84.1	87.4	83.5	85.8
EMPLOYED	94.2	95.8	95.0	96.5	87.3	90.4	85.1	87.5
UNEMPLOYED	82.3	85.8	84.2	87.3	76.3	81.1	73.8	76.9
NOT IN LABOR FORCE	92.2	93.6	93.8	94.9	81.5	84.5	82.6	84.6
1986 ANNUAL AVERAGE								
TOTAL CNP	93.4	94.8	94.6	95.8	84.6	88.1	83.3	85.4
EMPLOYED	94.7	96.1	95.5	96.6	87.7	91.1	85.3	87.4
UNEMPLOYED	82.3	86.0	84.5	87.6	74.8	80.7	75.3	78.2
NOT IN LABOR FORCE	92.6	93.9	94.1	95.1	82.3	85.4	81.4	83.4
1987 ANNUAL AVERAGE								
TOTAL CNP	93.5	94.9	94.7	95.9	84.7	88.1	84.5	86.4
EMPLOYED	94.6	96.1	95.4	96.7	87.9	91.0	86.3	88.3
UNEMPLOYED	82.7	86.1	85.3	88.2	74.0	79.3	77.0	79.6
NOT IN LABOR FORCE	92.7	93.9	94.2	95.2	82.2	85.5	82.5	84.1
1988 ANNUAL AVERAGE								
TOTAL CNP	93.8	95.2	94.9	96.1	85.6	88.7	83.6	86.1
EMPLOYED	94.9	96.2	95.6	96.8	88.5	91.5	85.4	87.7
UNEMPLOYED	83.3	86.8	85.9	88.9	75.4	80.5	76.7	80.3
NOT IN LABOR FORCE	92.8	94.2	94.3	95.5	83.1	86.0	81.5	84.0
1989 ANNUAL AVERAGE								
TOTAL CNP	94.1	95.5	95.3	96.4	85.8	89.0	84.7	87.0
EMPLOYED	95.2	96.5	96.0	97.1	88.8	91.7	86.6	89.0
UNEMPLOYED	83.9	87.1	86.2	88.8	77.0	82.5	75.1	78.6
NOT IN LABOR FORCE	93.1	94.4	94.7	95.7	82.8	85.9	82.6	84.6
1990 ANNUAL AVERAGE								
TOTAL CNP	94.2	95.5	95.3	96.5	86.1	88.8	84.5	86.6
EMPLOYED	95.3	96.6	96.0	97.2	89.4	91.8	86.3	88.4
UNEMPLOYED	85.0	88.0	87.9	90.4	75.3	80.0	77.0	80.4
NOT IN LABOR FORCE	93.0	94.3	94.6	95.6	83.2	85.8	82.4	84.1

Table 7
Percentage of Adults with a Telephone by Labor Force Status

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1991 ANNUAL AVERAGE								
TOTAL CNP	94.3	95.7	95.5	96.6	86.3	89.1	85.5	87.7
EMPLOYED	95.6	96.8	96.3	97.3	89.8	92.4	87.5	89.6
UNEMPLOYED	86.4	89.5	88.3	91.0	78.9	84.1	78.2	81.6
NOT IN LABOR FORCE	93.1	94.4	94.7	95.8	82.6	85.3	83.5	85.4
1992 ANNUAL AVERAGE								
TOTAL CNP	94.7	95.9	95.8	96.8	86.9	89.8	87.8	89.7
EMPLOYED	95.8	97.0	96.5	97.5	90.1	92.8	89.5	91.6
UNEMPLOYED	88.1	90.3	90.0	91.8	81.2	85.0	83.4	85.8
NOT IN LABOR FORCE	93.6	94.8	95.2	96.1	83.6	86.5	85.8	87.4
1993 ANNUAL AVERAGE								
TOTAL CNP	95.0	96.1	96.0	97.0	87.5	90.0	88.2	89.9
EMPLOYED	96.1	97.1	96.8	97.6	90.6	92.8	89.7	91.5
UNEMPLOYED	88.6	90.6	90.7	92.3	80.9	84.7	85.0	87.1
NOT IN LABOR FORCE	93.8	94.9	95.3	96.2	84.5	87.0	86.1	87.6
1994 ANNUAL AVERAGE								
TOTAL CNP	94.5	95.9	95.6	96.7	87.9	91.0	87.3	89.2
EMPLOYED	95.6	96.8	96.3	97.3	90.4	93.2	88.5	90.4
UNEMPLOYED	87.8	90.8	89.8	92.2	81.1	86.7	84.1	86.5
NOT IN LABOR FORCE	93.4	94.8	94.8	95.9	85.4	88.5	85.7	87.6
1995 ANNUAL AVERAGE								
TOTAL CNP	95.0	96.1	95.9	96.8	89.1	91.4	88.0	89.6
EMPLOYED	95.8	96.7	96.5	97.2	91.2	93.2	88.9	90.4
UNEMPLOYED	88.8	91.7	90.8	93.1	82.3	87.4	84.4	87.2
NOT IN LABOR FORCE	93.4	94.4	94.8	95.7	84.9	87.3	86.0	87.7
1996 ANNUAL AVERAGE								
TOTAL CNP	94.9	95.8	95.6	96.4	89.7	91.8	88.4	89.7
EMPLOYED	95.6	96.4	96.2	96.9	91.4	93.0	89.6	90.8
UNEMPLOYED	88.8	91.1	90.1	91.9	85.0	89.5	84.6	86.5
NOT IN LABOR FORCE	93.4	94.4	94.5	95.3	86.4	88.8	85.6	87.0
1997 ANNUAL AVERAGE								
TOTAL CNP	94.9	95.8	95.7	96.5	89.3	91.5	88.6	90.2
EMPLOYED	95.6	96.5	96.2	96.9	91.1	92.9	89.5	91.1
UNEMPLOYED	87.8	90.4	89.7	91.4	81.5	87.1	82.4	84.3
NOT IN LABOR FORCE	93.5	94.4	94.8	95.5	86.4	88.4	86.9	88.4
1998 ANNUAL AVERAGE								
TOTAL CNP	95.1	95.9	95.7	96.5	90.4	91.9	89.9	91.3
EMPLOYED	95.6	96.4	96.1	96.8	91.9	93.3	90.4	91.8
UNEMPLOYED	89.3	91.4	91.5	93.2	82.9	85.6	85.4	88.6
NOT IN LABOR FORCE	93.9	94.7	94.9	95.6	87.8	89.1	89.0	90.2

Table 7
Percentage of Adults with a Telephone by Labor Force Status

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1999 ANNUAL AVERAGE								
TOTAL CNP	95.2	95.9	95.9	96.5	90.3	91.8	91.2	92.1
EMPLOYED	95.8	96.4	96.3	96.9	91.8	93.2	91.5	92.4
UNEMPLOYED	89.6	91.2	91.6	93.0	83.2	85.4	89.1	90.2
NOT IN LABOR FORCE	94.1	94.7	95.1	95.7	87.7	89.1	90.7	91.6
2000 ANNUAL AVERAGE								
TOTAL CNP	95.1	95.8	95.7	96.3	91.0	92.1	91.7	92.6
EMPLOYED	95.7	96.4	96.1	96.8	92.6	93.6	91.9	92.8
UNEMPLOYED	90.5	92.2	92.2	93.5	85.6	88.3	89.3	90.8
NOT IN LABOR FORCE	94.3	94.9	95.1	95.6	89.1	90.0	91.6	92.4
2001 ANNUAL AVERAGE								
TOTAL CNP	95.6	96.2	96.2	96.8	91.6	92.7	92.4	93.3
EMPLOYED	96.1	96.8	96.5	97.2	93.1	94.0	92.5	93.3
UNEMPLOYED	92.1	93.4	93.1	94.2	88.5	90.9	91.8	92.5
NOT IN LABOR FORCE	94.9	95.5	95.7	96.3	89.4	90.6	92.3	93.2
2002 ANNUAL AVERAGE								
TOTAL CNP	96.0	96.8	96.7	97.3	92.0	93.2	92.9	93.8
EMPLOYED	96.7	97.3	97.1	97.7	93.8	94.8	93.2	94.1
UNEMPLOYED	92.1	93.5	93.0	94.3	88.3	90.5	89.8	91.0
NOT IN LABOR FORCE	95.4	96.1	96.3	96.9	89.7	91.0	92.8	93.6
MARCH 2003								
TOTAL CNP	96.2	96.8	96.7	97.3	92.5	93.4	93.2	94.0
EMPLOYED	96.7	97.3	97.1	97.7	94.1	94.9	93.7	94.3
UNEMPLOYED	92.5	93.9	93.3	94.6	89.0	90.6	89.4	91.5
NOT IN LABOR FORCE	95.7	96.3	96.5	97.0	90.7	91.7	93.1	93.8
JULY 2003								
TOTAL CNP	96.1	96.8	96.6	97.3	92.4	93.5	92.9	94.0
EMPLOYED	96.6	97.3	96.9	97.6	94.2	95.2	93.4	94.6
UNEMPLOYED	93.4	94.5	94.5	95.5	88.6	90.2	90.6	92.4
NOT IN LABOR FORCE	95.4	96.0	96.2	96.8	90.4	91.5	92.2	93.2
NOVEMBER 2003								
TOTAL CNP	95.5	96.1	96.1	96.7	91.4	92.4	91.8	92.6
EMPLOYED	95.9	96.6	96.4	97.1	92.4	93.3	92.7	93.4
UNEMPLOYED	92.2	93.5	92.9	93.9	88.7	91.0	88.3	89.0
NOT IN LABOR FORCE	95.0	95.5	95.8	96.2	90.2	91.1	90.7	91.6
2003 ANNUAL AVERAGE								
TOTAL CNP	95.9	96.6	96.5	97.1	92.1	93.1	92.6	93.5
EMPLOYED	96.4	97.1	96.8	97.5	93.6	94.5	93.3	94.1
UNEMPLOYED	92.7	94.0	93.6	94.7	88.8	90.6	89.4	91.0
NOT IN LABOR FORCE	95.4	95.9	96.2	96.7	90.4	91.4	92.0	92.9

Table 7
Percentage of Adults with a Telephone by Labor Force Status

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
MARCH 2004								
TOTAL CNP	95.0	95.7	95.4	96.1	92.0	92.8	91.7	92.7
EMPLOYED	95.5	96.3	95.8	96.5	93.5	94.1	92.0	93.0
UNEMPLOYED	91.2	92.7	92.0	93.5	87.9	89.4	89.4	90.7
NOT IN LABOR FORCE	94.5	95.1	95.1	95.6	90.5	91.3	91.7	92.4
JULY 2004								
TOTAL CNP	94.8	95.5	95.5	96.2	89.6	90.8	92.0	93.1
EMPLOYED	95.3	96.1	95.8	96.6	91.2	92.7	92.4	93.6
UNEMPLOYED	92.1	93.5	94.5	95.4	84.8	87.6	91.3	92.5
NOT IN LABOR FORCE	94.0	94.6	94.9	95.5	87.8	88.4	91.3	92.1
NOVEMBER 2004								
TOTAL CNP	94.4	95.4	95.0	95.9	90.1	91.8	91.7	92.6
EMPLOYED	94.9	96.0	95.4	96.3	91.5	93.1	92.1	93.1
UNEMPLOYED	91.3	93.2	93.4	94.7	85.3	88.5	92.0	93.6
NOT IN LABOR FORCE	93.7	94.5	94.5	95.1	88.8	90.2	90.7	91.3
2004 ANNUAL AVERAGE								
TOTAL CNP	94.7	95.5	95.3	96.1	90.6	91.8	91.8	92.8
EMPLOYED	95.2	96.1	95.7	96.5	92.1	93.3	92.2	93.2
UNEMPLOYED	91.5	93.1	93.3	94.5	86.0	88.5	90.9	92.3
NOT IN LABOR FORCE	94.1	94.7	94.8	95.4	89.0	90.0	91.2	91.9
MARCH 2005								
TOTAL CNP	93.2	94.4	93.8	94.9	89.6	91.0	89.6	91.0
EMPLOYED	93.7	94.9	94.2	95.3	90.4	91.8	89.5	90.9
UNEMPLOYED	90.1	91.9	90.9	92.8	87.5	89.2	87.2	88.6
NOT IN LABOR FORCE	92.7	93.7	93.3	94.3	88.6	90.0	90.3	91.5

Table 8
Critical Values for Determining Significant Differences by State

	In Unit	Available
UNITED STATES	0.4%	0.3%
ALABAMA	4.2%	4.0%
ALASKA	3.4%	2.7%
ARIZONA	2.7%	2.5%
ARKANSAS	3.6%	3.5%
CALIFORNIA	1.1%	1.0%
COLORADO	2.1%	1.9%
CONNECTICUT	2.6%	2.6%
DELAWARE	2.8%	2.4%
DISTRICT OF COLUMBIA	4.7%	4.2%
FLORIDA	1.7%	1.7%
GEORGIA	3.3%	3.1%
HAWAII	3.1%	2.6%
IDAHO	2.6%	2.5%
ILLINOIS	2.4%	2.0%
INDIANA	3.1%	2.9%
IOWA	2.8%	2.6%
KANSAS	3.0%	2.8%
KENTUCKY	3.5%	3.1%
LOUISIANA	3.5%	3.1%
MAINE	2.0%	1.7%
MARYLAND	2.9%	2.8%
MASSACHUSETTS	2.1%	2.0%
MICHIGAN	1.7%	1.6%
MINNESOTA	2.3%	2.2%
MISSISSIPPI	4.0%	3.3%
MISSOURI	3.2%	2.9%
MONTANA	2.5%	2.3%
NEBRASKA	2.2%	2.0%
NEVADA	3.6%	3.5%
NEW HAMPSHIRE	2.7%	2.4%
NEW JERSEY	2.3%	2.3%
NEW MEXICO	3.6%	3.5%
NEW YORK	1.4%	1.2%
NORTH CAROLINA	2.0%	1.8%
NORTH DAKOTA	1.9%	1.7%
OHIO	1.9%	1.7%
OKLAHOMA	3.5%	3.2%
OREGON	3.1%	2.7%
PENNSYLVANIA	1.4%	1.3%
RHODE ISLAND	3.3%	3.3%
SOUTH CAROLINA	3.6%	3.4%
SOUTH DAKOTA	4.0%	3.8%
TENNESSEE	2.9%	2.6%
TEXAS	1.8%	1.6%
UTAH	2.7%	2.5%
VERMONT	3.5%	3.0%
VIRGINIA	3.5%	3.3%
WASHINGTON	2.3%	2.1%
WEST VIRGINIA	3.3%	2.8%
WISCONSIN	2.7%	2.5%
WYOMING	2.7%	2.5%

Table 9
Critical Values for Determining Significant Differences by Income

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
TOTAL	0.4%	0.3%	0.4%	0.3%	1.6%	1.5%	1.7%	1.6%
UNDER $5,000	3.9%	3.7%	4.4%	4.1%	7.9%	7.4%	10.1%	9.8%
$5,000 - $7,499	3.0%	2.9%	3.3%	3.1%	7.5%	7.3%	9.1%	8.4%
$7,500 - $9,999	2.4%	2.2%	2.6%	2.5%	7.4%	6.4%	8.4%	8.3%
$10,000 - $12,499	2.1%	2.0%	2.3%	2.2%	7.4%	6.7%	7.0%	6.7%
$12,500 - $14,999	2.1%	1.9%	2.2%	2.0%	6.8%	6.3%	7.4%	7.3%
$15,000 - $19,999	1.5%	1.3%	1.4%	1.2%	5.8%	5.0%	5.3%	4.9%
$20,000 - $24,999	1.2%	1.1%	1.2%	1.1%	3.7%	3.4%	5.0%	4.8%
$25,000 - $29,999	1.1%	1.0%	1.1%	1.0%	4.7%	4.3%	3.9%	3.7%
$30,000 - $34,999	1.0%	0.9%	1.0%	0.9%	5.1%	4.5%	4.6%	4.1%
$35,000 - $39,999	0.9%	0.9%	0.9%	0.9%	4.8%	4.6%	3.7%	3.6%
$40,000 - $49,999	0.7%	0.6%	0.7%	0.6%	3.0%	2.8%	4.1%	3.7%
$50,000 - $59,999	0.6%	0.6%	0.6%	0.6%	3.2%	3.2%	3.0%	2.7%
$60,000 - $74,999	0.6%	0.5%	0.6%	0.5%	4.0%	3.8%	2.1%	2.0%
$75,000 +	0.4%	0.4%	0.4%	0.4%	2.6%	2.4%	3.0%	2.8%

Table 10
Critical Values for Determining Significant Differences by Household Size

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
TOTAL	0.4%	0.3%	0.4%	0.3%	1.6%	1.5%	1.7%	1.6%
1 PERSON	0.9%	0.8%	0.9%	0.8%	3.5%	3.2%	5.4%	5.1%
2 - 3	0.5%	0.4%	0.4%	0.4%	2.0%	1.9%	2.3%	2.2%
4 - 5	0.6%	0.6%	0.6%	0.5%	2.9%	2.7%	2.3%	2.1%
6 +	1.9%	1.8%	2.0%	1.9%	6.7%	6.3%	4.6%	4.5%

Table 11
Critical Values for Determining Significant Differences by Householder's Age

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
TOTAL	0.4%	0.3%	0.4%	0.3%	1.6%	1.5%	1.7%	1.6%
15-24 YRS OLD	2.3%	2.1%	2.4%	2.2%	7.6%	6.8%	6.1%	5.9%
25-54 YRS OLD	0.5%	0.4%	0.4%	0.4%	2.0%	1.8%	1.9%	1.8%
55-59 YRS OLD	1.1%	1.0%	1.0%	1.0%	4.9%	4.5%	5.8%	5.3%
60-64 YRS OLD	1.1%	1.0%	1.1%	1.0%	4.9%	4.5%	6.3%	6.2%
65-69 YRS OLD	1.1%	1.1%	1.1%	1.1%	5.5%	5.1%	7.2%	7.2%
70-99 YRS OLD	0.7%	0.7%	0.7%	0.7%	3.6%	3.3%	5.8%	5.4%

Table 12
Critical Values for Determining Significant Differences by Labor Force Status

	RACE						HISPANIC ORIGIN	
	TOTAL		WHITE		BLACK			
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
TOTAL CNP	0.3%	0.3%	0.3%	0.3%	1.4%	1.4%	1.4%	1.3%
EMPLOYED	0.3%	0.3%	0.3%	0.3%	1.5%	1.4%	1.6%	1.5%
UNEMPLOYED	2.1%	1.9%	2.1%	1.9%	5.7%	5.1%	5.8%	5.3%
NOT IN LABOR FORCE	0.5%	0.5%	0.5%	0.5%	2.3%	2.1%	2.0%	1.9%

Customer Response

Publication: Telephone Subscribership in the United States (Data through March 2005)

You can help us provide the best possible information to the public by completing this form and returning it to the Industry Analysis and Technology Division of the FCC's Wireline Competition Bureau.

1. Please check the category that best describes you:
   - ____ press
   - ____ current telecommunications carrier
   - ____ potential telecommunications carrier
   - ____ business customer evaluating vendors/service options
   - ____ consultant, law firm, lobbyist
   - ____ other business customer
   - ____ academic/student
   - ____ residential customer
   - ____ FCC employee
   - ____ other federal government employee
   - ____ state or local government employee
   - ____ Other (please specify)

2. Please rate the report:

	Excellent	Good	Satisfactory	Poor	No opinion
Data accuracy	❑	❑	❑	❑	❑
Data presentation	❑	❑	❑	❑	❑
Timeliness of data	❑	❑	❑	❑	❑
Completeness of data	❑	❑	❑	❑	❑
Text clarity	❑	❑	❑	❑	❑
Completeness of text	❑	❑	❑	❑	❑

3.

	Excellent	Good	Satisfactory	Poor	No opinion
Overall, how do you rate this report?	❑	❑	❑	❑	❑

4. How can this report be improved?

5. May we contact you to discuss possible improvements?

   Name:
   Telephone #:

To discuss this report contact Alex Belinfante at 202-418-0944		
Fax this response to	or	Mail this response to
202-418-0520		FCC/WCB/IATD Washington, DC 20554

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-3)
§ 364.064, Fla. Stat.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-3

Florida Statute § 364.164.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 10
Company/ Alltel
Witness: David C. Blessing (DCB-3)
Date: 12/01/05

*43992 West's F.S.A. § 364.164

WEST'S FLORIDA STATUTES ANNOTATED
TITLE XXVII. RAILROADS AND OTHER REGULATED UTILITIES (CHAPTERS 350-368)
CHAPTER 364. TELECOMMUNICATIONS COMPANIES
PART I. GENERAL PROVISIONS

Current through Chapter 484 and H.J.R. No. 1 and S.J.R. No. 2394 (End) of 2004 Special "A" Session of the Nineteenth Legislature

364.164. Competitive market enhancement

(1) Each local exchange telecommunications company may, after July 1, 2003, petition the commission to reduce its intrastate switched network access rate in a revenue-neutral manner. The commission shall issue its final order granting or denying any petition filed pursuant to this section within 90 days. In reaching its decision, the commission shall consider whether granting the petition will:

(a) Remove current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers.

(b) Induce enhanced market entry.

(c) Require intrastate switched network access rate reductions to parity over a period of not less than 2 years or more than 4 years.

(d) Be revenue neutral as defined in subsection (7) within the revenue category defined in subsection (2).

(2) If the commission grants the local exchange telecommunications company's petition, the local exchange telecommunications company is authorized, the requirements of s. 364.051(3) notwithstanding, to immediately implement a revenue category mechanism consisting of basic local telecommunications service revenues and intrastate switched network access revenues to achieve revenue neutrality. The local exchange telecommunications company shall thereafter, on 45 days' notice, adjust the various prices and rates of the services within its revenue category authorized by this section once in any 12-month period in a revenue-neutral manner. An adjustment in rates may not be offset entirely by the company's basic monthly recurring rate. All annual rate adjustments within the revenue category established pursuant to this section must be implemented simultaneously and must be revenue neutral. The commission shall, within 45 days after the rate adjustment filing, issue a final order confirming compliance with this section, and such an order shall be final for all purposes.

*43993 (3) Any filing under this section must be based on the company's most recent 12 months' pricing units in accordance with subsection (7) for any service included in the revenue category established under this section. The commission shall have the authority only to verify the pricing units for the purpose of ensuring that the company's specific adjustments, as authorized by this section, make the revenue category revenue neutral for each filing. Any discovery or information requests under this section must be limited to a verification of historical pricing units necessary to fulfill the commission's specific responsibilities under this section of ensuring that the company's rate adjustments make the revenue category revenue neutral for each annual filing.

(4) This section does not affect the local exchange telecommunications company's exemptions pursuant to s. 364.051(1)(c) or authorize any local exchange telecommunications company to increase the cost of local exchange services to any person providing services under s. 364.3375.

(5) As used in this section, the term "parity" means that the local exchange telecommunications company's intrastate switched network access rate

is equal to its interstate switched network access rate in effect on January 1, 2003, if the company has more than 1 million access lines in service. If the company has 1 million or fewer access lines in service, the term "parity" means that the company's intrastate switched network access rate is equal to 8 cents per minute. This section does not prevent the company from making further reductions in its intrastate switched network access rate, within the revenue category established in this section, below parity on a revenue-neutral basis, or from making other revenue-neutral rate adjustments within this category.

(6) As used in this section, the term "intrastate switched network access rate" means the composite of the originating and terminating network access rate for carrier common line, local channel/entrance facility, switched common transport, access tandem switching, interconnection charge, signaling, information surcharge, and local switching.

(7) As used in this section, the term "revenue neutral" means that the total revenue within the revenue category established pursuant to this section remains the same before and after the local exchange telecommunications company implements any rate adjustments under this section. Calculation of revenue received from each service before the implementation of any rate adjustment must be made by multiplying the then-current rate for each service by the most recent 12 months' actual pricing units for each service within the category, without any adjustments to the number of pricing units. Calculation of revenue for each service to be received after implementation of rate adjustments must be made by multiplying the rate to be applicable for each service by the most recent 12 months' actual pricing units for each service within the category, without any adjustments to the number of pricing units. Billing units associated with pay telephone access lines and Lifeline service may not be included in any calculation under this subsection.

***43994** (8) If either the Federal Communications Commission or the commission issues a final order determining that voice-over-Internet protocol service or a functionally equivalent service shall not be subject to the payment of switched network access rates pursuant to a local exchange telecommunications company tariff or interconnection agreement or other law, the provisions of subsection (2) shall immediately become operative as if the commission had granted a petition pursuant to subsection (1). Any local exchange telecommunications company subject to this section shall be authorized to reduce its switched network access rates to the company's authorized local reciprocal compensation rates in a revenue-neutral manner, pursuant to subsections (2)-(7), in the shortest remaining timeframe allowable under this section.

CREDIT(S)

Added by Laws 2003, c. 2003-32, § 15, eff. May 23, 2003.

<General Materials (GM) - References, Annotations, or Tables>

REFERENCES

RESEARCH REFERENCES

Encyclopedias

FL Jur. 2d Telecommunications § 26, Generally; Local Exchange Telecommunications Companies.

FL Jur. 2d Telecommunications § 37, Rates, Tolls, and Charges, Generally.

FL Jur. 2d Telecommunications § 42, Fixing of Rates, Generally.

Current through Chapter 484 and H.J.R. No. 1and S.J.R. No. 2394 (End) of 2004 Special "A" Session of the Nineteenth Legislature

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-4)
Hatfield Cost Study
(Non-Confidential)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-4

(Non-Confidential) Hatfield HAI 5.0a – Default and ALLTEL-specific model runs plus input changes.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 11
Company/ Alltel
Witness: David C. Blessing (DCB-4)
Date: 12/01/05

ALLTEL Florida, Inc.

HAI Cost Model Results

ALLTEL Company Specific Scenario

Using ALLTEL Florida Inputs at September 12, 2005

Wirecenter	Lines	UNE Loop	Monthly Line Cost	Residential Line	Business Line
ALCHFLXA	[redacted]				
BORAFLXA					
BRFRFLXA					
BRKRFLXA					
CITRFLXA					
CLHNFLXA					
CRCYFLXA					
DWPKFLXA					
FLRHFLXA					
FTWHFLXA					
HGSPFLXA					
HLRDFLXA					
HSNGFLXA					
INTRFLXA					
JNGSFLXA					
JSPRFLXA					
LKBTFLXA					
LRVLFLXA					
LVOKFLXA					
MAYOFLXA					
MCINFLXA					
MLRSFLXA					
ORSPFLXA					
RAFRFLXA					
WALDFLXA					
WHSPFLXA					
WLBRFLXA					
FL Average					

Notes: UNE Loop is loop only
Monthly Cost is Loop + Port + Transport + Usage
Monthly residential and business line costs come from Worksheet "USF".

HAI Model Release 5.0a - Expense Module
Wire Center Level Calculations

Florida — Alltel Florida Inc

clli	total lines	business lines	residential lines	special access lines	public lines	single line business lines	households	copper feeder cable u/g	copper feeder cable buried	copper feeder cable aerial
ALCHFLXA										
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

clli	fiber feeder cable u/g	fiber feeder cable buried	fiber feeder cable aerial	feeder conduit	feeder manholes	copper feeder u/g placement	fiber feeder u/g placement	copper feeder buried placement	fiber feeder buried placement
ALCHFLXA	[redacted]								
BORAFLXA									
BRFRFLXA									
BRKRFLXA									
CITRFLXA									
CLHNFLXA									
CRCYFLXA									
DWPKFLXA									
FLRHFLXA									
FTWHFLXA									
HGSPFLXA									
HLRDFLXA									
HSNGFLXA									
INTRFLXA									
JNGSFLXA									
JSPRFLXA									
LKBTFLXA									
LRVLFLXA									
LVOKFLXA									
MAYOFLXA									
MCINFLXA									
MLRSFLXA									
ORSPFLXA									
RAFRFLXA									
WALDFLXA									
WHSPFLXA									
WLBRFLXA									

clli	feeder pole inv	distribution cable underground	distribution cable buried	distribution cable aerial	distribution conduit	distribution conduit placement	distribution buried placement	distribution poles	calc copper feeder fill
ALCHFLXA	[redacted]								
BORAFLXA									
BRFRFLXA									
BRKRFLXA									
CITRFLXA									
CLHNFLXA									
CRCYFLXA									
DWPKFLXA									
FLRHFLXA									
FTWHFLXA									
HGSPFLXA									
HLRDFLXA									
HSNGFLXA									
INTRFLXA									
JNGSFLXA									
JSPRFLXA									
LKBTFLXA									
LRVLFLXA									
LVOKFLXA									
MAYOFLXA									
MCINFLXA									
MLRSFLXA									
ORSPFLXA									
RAFRFLXA									
WALDFLXA									
WHSPFLXA									
WLBRFLXA									

clli	calc distribution fill	calc "mainframe fill"	DLC inv w/site	SAI inv	terminal inv	drop inv	NID inv	feeder distance	total distribution distance	DLC lines
ALCHFLXA										
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

clli	end office switching	MDF/protector inv	end office wire center	land	local tandem switching	local tandem wire center	OS tandem switching	OS tandem wire center	OS trunks	operator position
ALCHFLXA	[redacted]									
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

clli	common transport, u/g	common transport, buried	common transport, aerial	common transport, poles	common transport, conduit	common transport, manholes	common transmission terminal inv	direct transport, u/g	direct transport, buried	direct transport, aerial
ALCHFLXA	[redacted]									
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

clli	direct transport, poles	direct transport, conduit	direct transport, manholes	direct transmission terminal inv	dedicated transport, u/g	dedicated transport, buried	dedicated transport, aerial	dedicated transport, poles	dedicated transport, conduit	dedicated transport, manholes
ALCHFLXA	[redacted]									
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

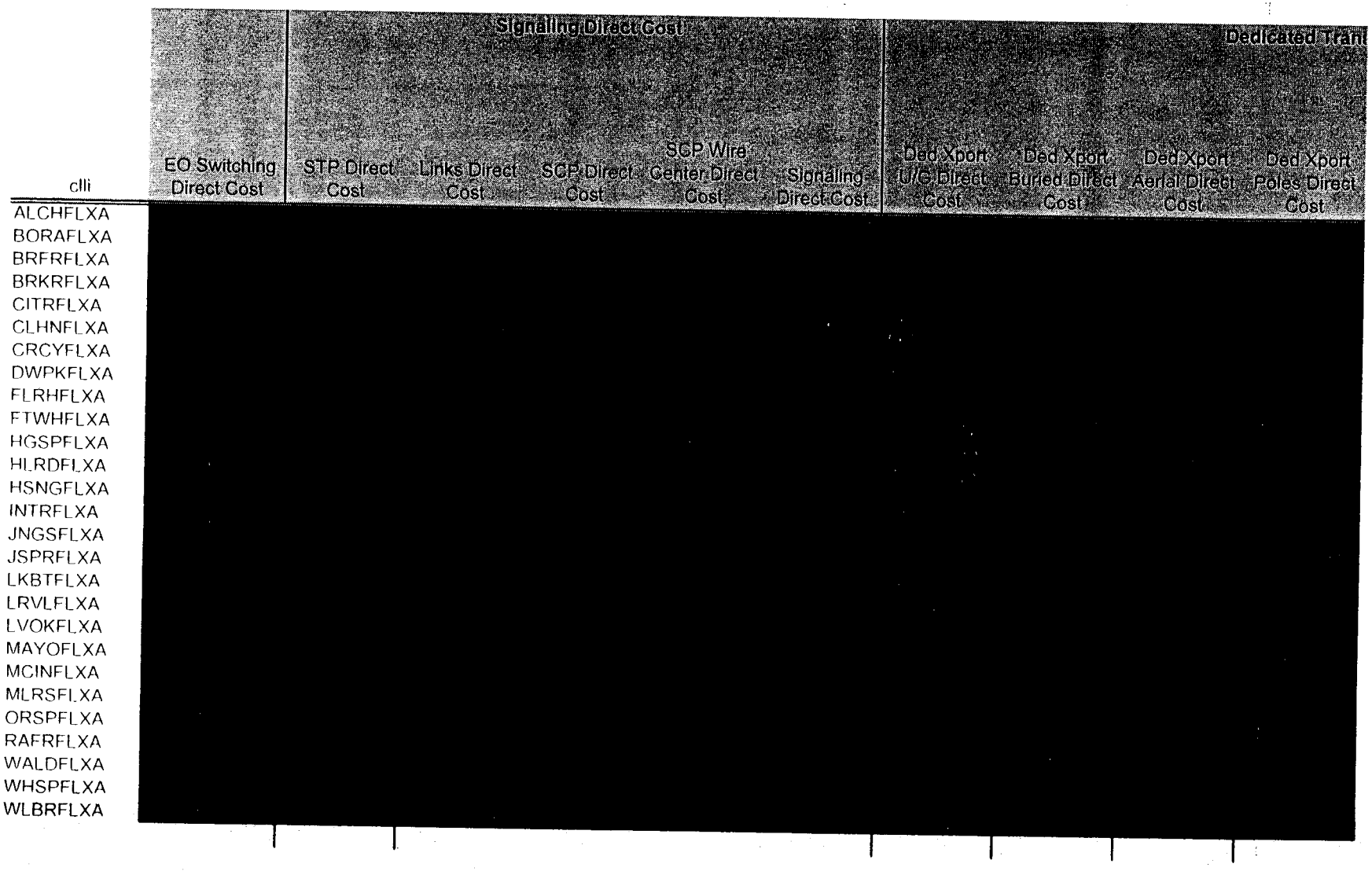
clli	dedicated transmission terminal inv	prop local direct trunks	prop local tandem trunks	prop intraLATA direct trunks	prop intraLATA tandem trunks	prop access direct trunks	prop access tandem trunks	prop operator trunks	SCP inv	SCP wire center inv
ALCHFLXA	[redacted]									
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

clli	STP inv	signaling link inv	total public telephone inv	total residential annual DEMs	total business annual DEMs	Total Investment	Total DEMs	total trunks	Distribution Cable u/g Direct Cost
ALCHFLXA									
BORAFLXA									
BRFRFLXA									
BRKRFLXA									
CITRFLXA									
CLHNFLXA									
CRCYFLXA									
DWPKFLXA									
FLRHFLXA									
FTWHFLXA									
HGSPFLXA									
HLRDFLXA									
HSNGFLXA									
INTRFLXA									
JNGSFLXA									
JSPRFLXA									
LKBTFLXA									
LRVLFLXA									
LVOKFLXA									
MAYOFLXA									
MCINFLXA									
MLRSFLXA									
ORSPFLXA									
RAFRFLXA									
WALDFLXA									
WHSPFLXA									
WLBRFLXA									

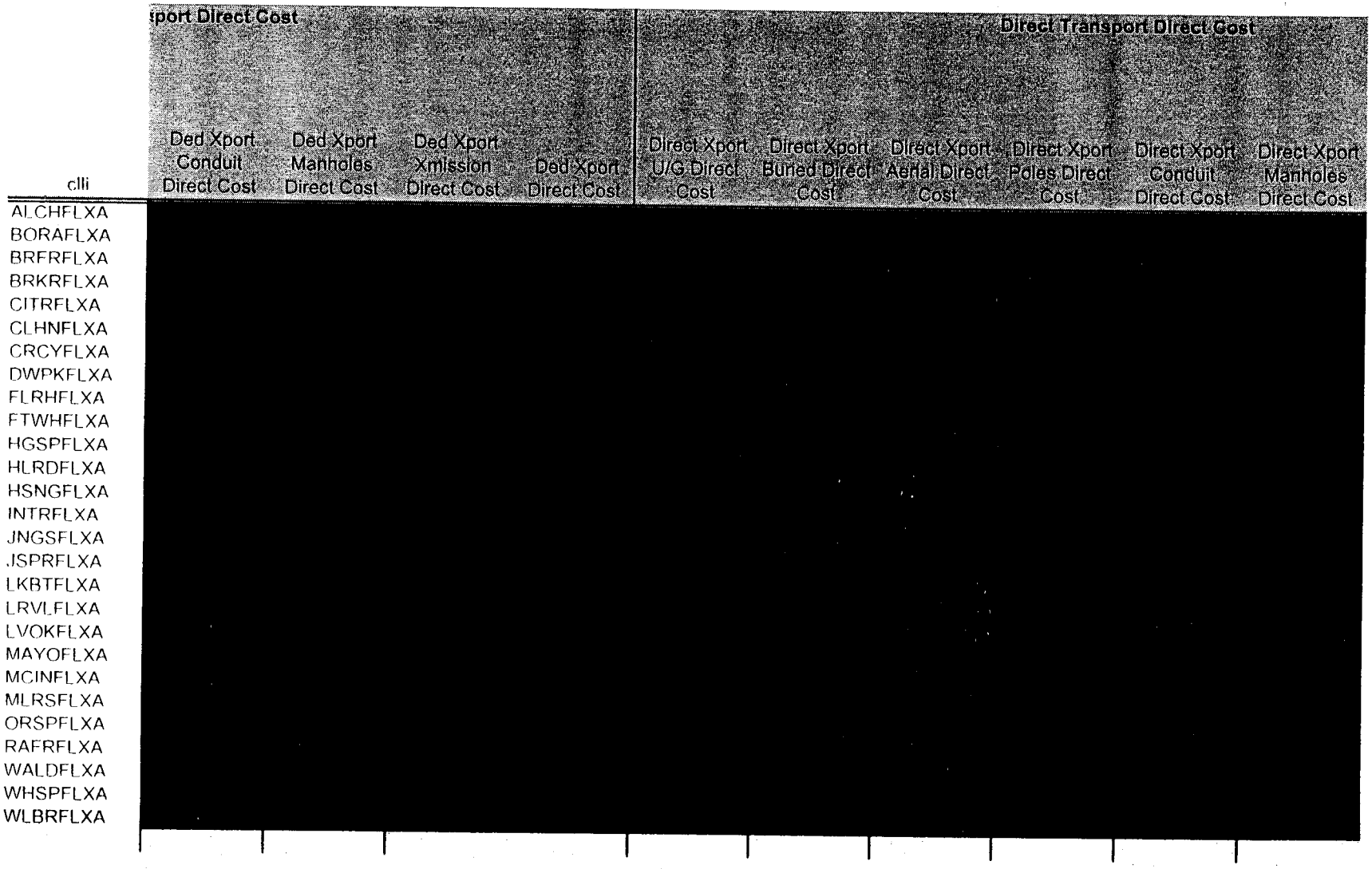
clli	Distribution Direct Cost								
	Distribution Cable Buried Direct Cost	Distribution Cable Aerial Direct Cost	Distribution Conduit Direct Cost	Distribution Conduit Trenching Direct Cost	Distribution Poles Direct Cost	Drop Direct Cost	NID Direct Cost	Terminal Direct Cost	Distribution Buried Trenching Direct Cost
ALCHFLXA	[redacted]								
BORAFLXA									
BRFRFLXA									
BRKRFLXA									
CITRFLXA									
CLHNFLXA									
CRCYFLXA									
DWPKFLXA									
FLRHFLXA									
FTWHFLXA									
HGSPFLXA									
HLRDFLXA									
HSNGFLXA									
INTRFLXA									
JNGSFLXA									
JSPRFLXA									
LKBTFLXA									
LRVLFLXA									
LVOKFLXA									
MAYOFLXA									
MCINFLXA									
MLRSFLXA									
ORSPFLXA									
RAFRFLXA									
WALDFLXA									
WHSPFLXA									
WLBRFLXA									

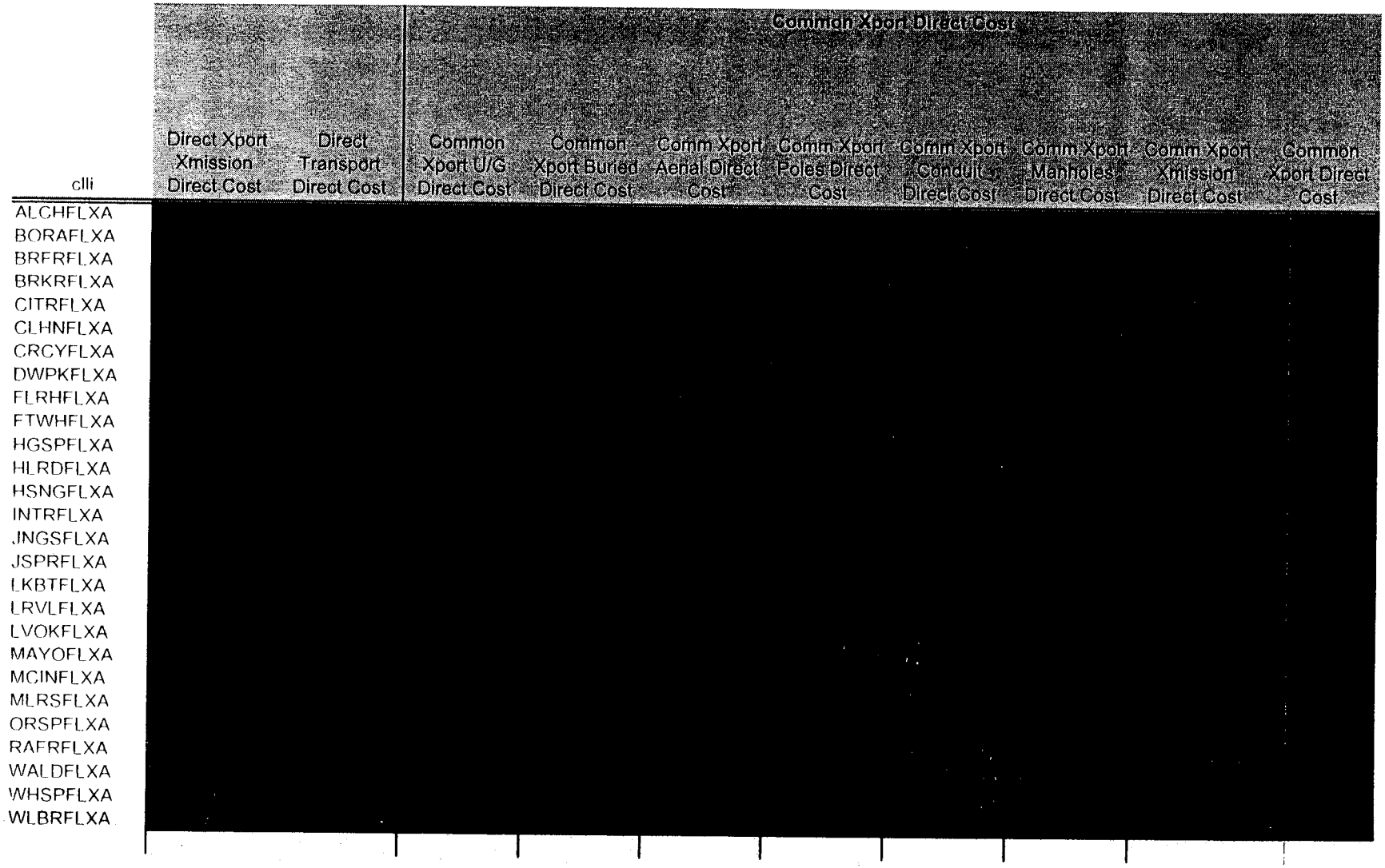
clli	Distribution Direct Cost	Concentrator Direct Cost: Digital Terminal Direct Cost	Concentrator Direct Cost: Passive SAI Direct Cost	Concentrator Direct Cost: Concentrator Direct Cost	Feeder Poles Direct Cost	Feeder Aerial Cable Net Exp	Feeder Aerial Cable Cap Cost	Feeder Fiber Aerial Cable Cap Cost	Feeder Buried Cable Net Exp	Feeder Cu Buried Cable Cap Cost
ALCHFLXA	[redacted]									
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

	Feeder Direct Cost							EO Switching Direct Cost		
clli	Feeder Fiber Cable Buried Cap Cost	Feeder U/G Cable Net Exp	Feeder Cu U/G Cable Cap Cost	Feeder Fiber U/G Cable Cap Cost	Feeder Conduit Direct Cost	Feeder Manhole Direct Cost	Feeder Direct Cost	EO Wire Center Direct Cost	EO Switching Direct Cost	EO MDF/Prot Direct Cost
ALCHFLXA										
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

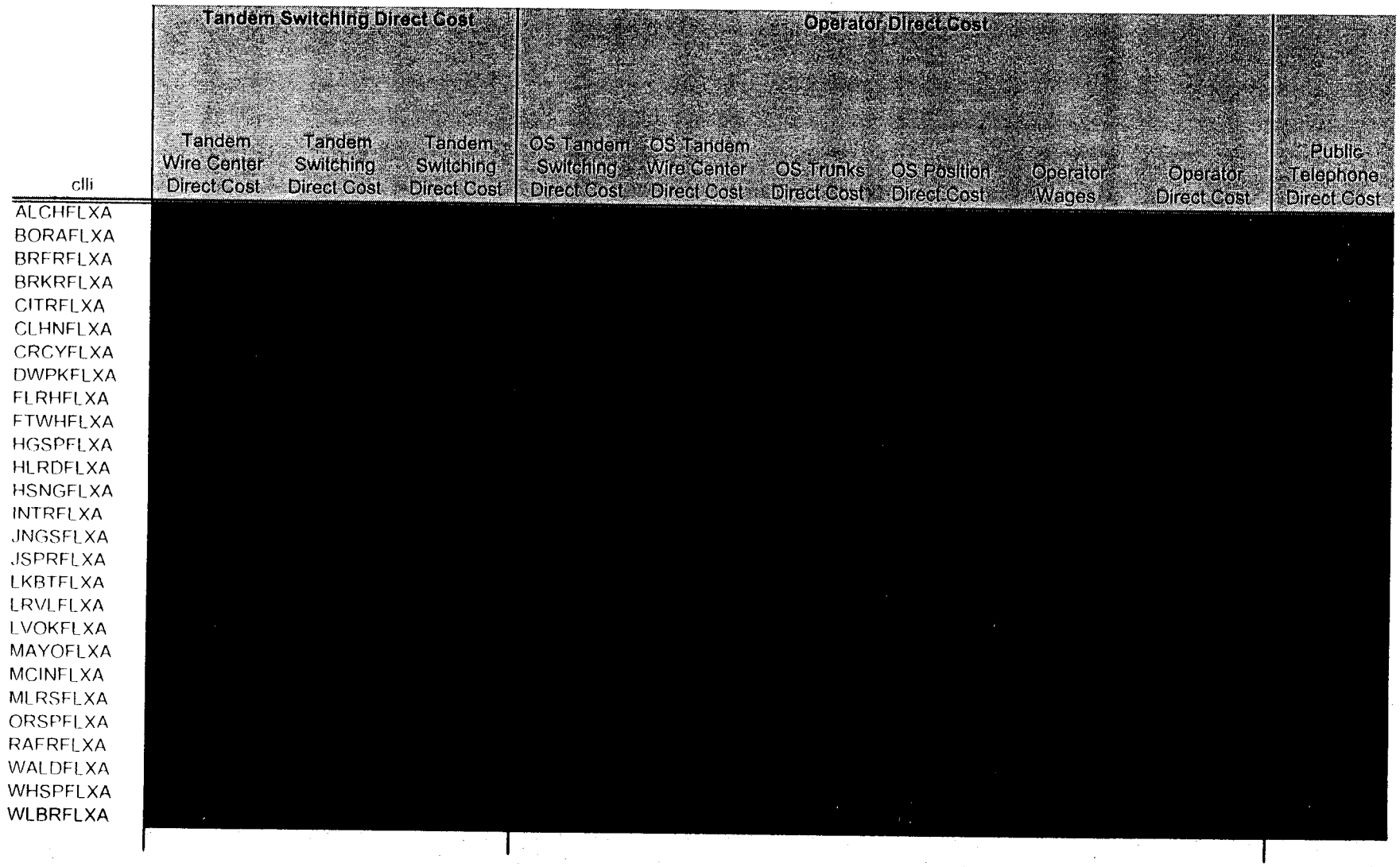


clli	EO Switching Direct Cost	Signalling Direct Cost					Dedicated Tran			
		STP Direct Cost	Links Direct Cost	SCP Direct Cost	SCP Wire Center Direct Cost	Signaling Direct Cost	Ded Xport U/G Direct Cost	Ded Xport Buried Direct Cost	Ded Xport Aerial Direct Cost	Ded Xport Poles Direct Cost
ALCHFLXA										
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

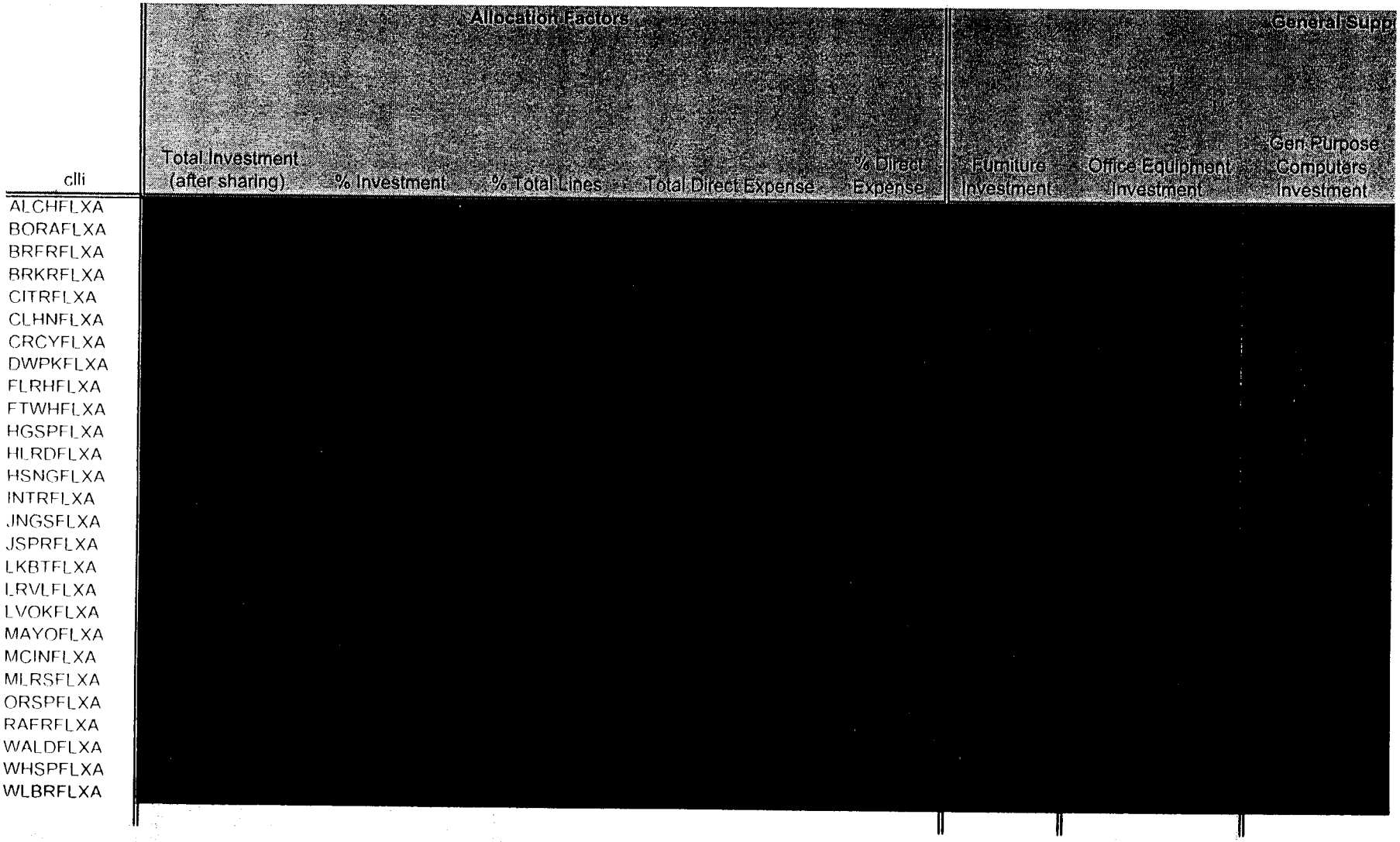

Ded Xport Direct Cost
Direct Transport Direct Cost
clli
Ded Xport Conduit Direct Cost
Ded Xport Manholes Direct Cost
Ded Xport Xmission Direct Cost
Ded Xport Direct Cost
Direct Xport U/G Direct Cost
Direct Xport Buried Direct Cost
Direct Xport Aerial Direct Cost
Direct Xport Poles Direct Cost
Direct Xport Conduit Direct Cost
Direct Xport Manholes Direct Cost
ALCHFLXA
BORAFLXA
BRFRFLXA
BRKRFLXA
CITRFLXA
CLHNFLXA
CRCYFLXA
DWPKFLXA
FLRHFLXA
FTWHFLXA
HGSPFLXA
HLRDFLXA
HSNGFLXA
INTRFLXA
JNGSFLXA
JSPRFLXA
LKBTFLXA
LRVLFLXA
LVOKFLXA
MAYOFLXA
MCINFLXA
MLRSFLXA
ORSPFLXA
RAFRFLXA
WALDFLXA
WHSPFLXA
WLBRFLXA



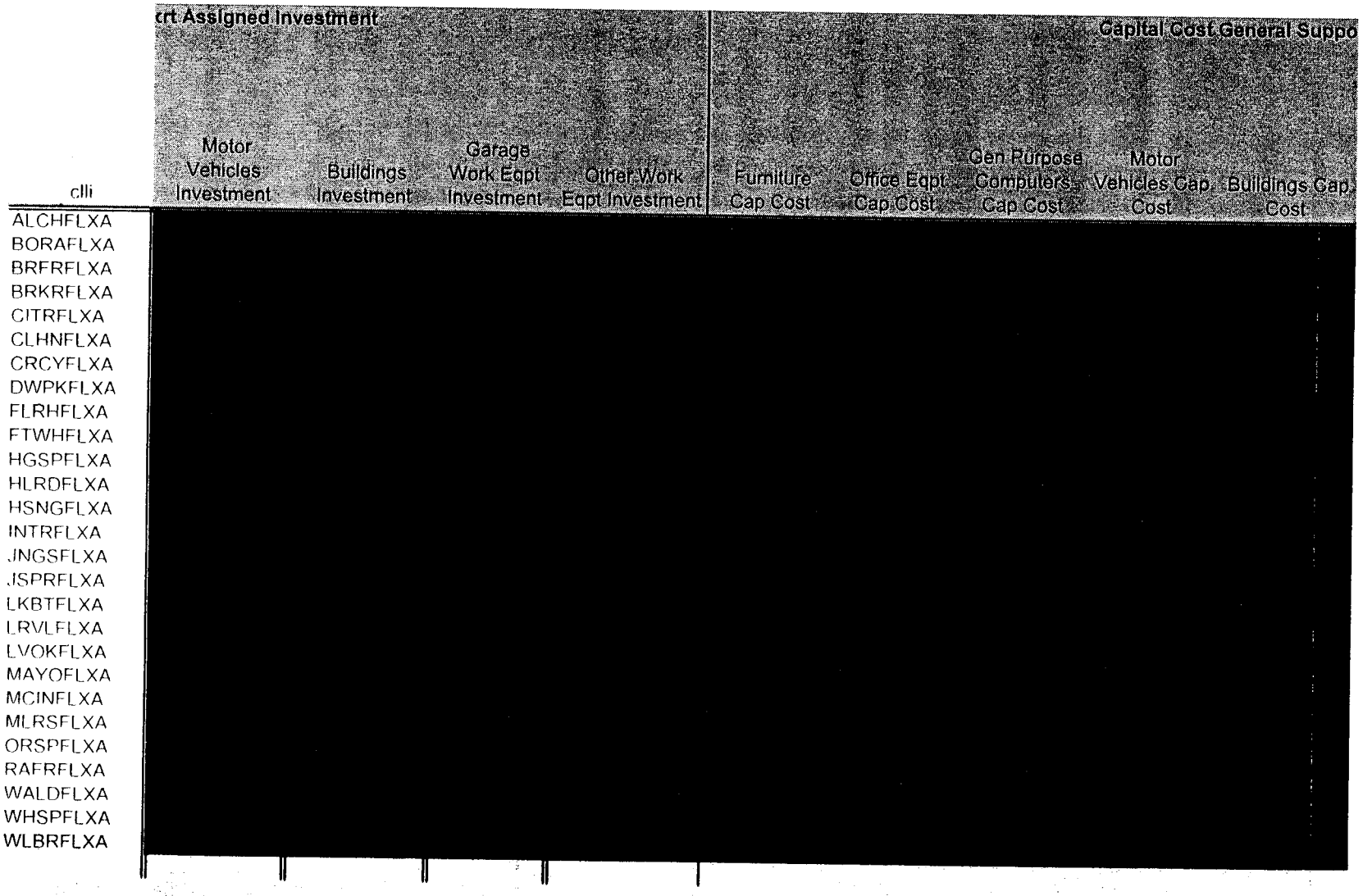
clli	Direct Xport Xmission Direct Cost	Direct Transport Direct Cost	Common Xport Direct Cost							
			Common Xport U/G Direct Cost	Common Xport Buried Direct Cost	Comm Xport Aerial Direct Cost	Comm Xport Poles Direct Cost	Comm Xport Conduit Direct Cost	Comm Xport Manholes Direct Cost	Comm Xport Xmission Direct Cost	Common Xport Direct Cost
ALCHFLXA										
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										



clli	Tandem Switching Direct Cost: Tandem Wire Center Direct Cost	Tandem Switching Direct Cost: Tandem Switching Direct Cost	Tandem Switching Direct Cost: Tandem Switching Direct Cost	Operator Direct Cost: OS Tandem Switching Direct Cost	Operator Direct Cost: OS Tandem Wire Center Direct Cost	Operator Direct Cost: OS Trunks Direct Cost	Operator Direct Cost: OS Position Direct Cost	Operator Direct Cost: Operator Wages	Operator Direct Cost: Operator Direct Cost	Public Telephone Direct Cost
ALCHFLXA										
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										



clli	Allocation Factors					General Supp		
	Total Investment (after sharing)	% Investment	% Total Lines	Total Direct Expense	% Direct Expense	Furniture Investment	Office Equipment Investment	Gen Purpose Computers Investment
ALCHFLXA								
BORAFLXA								
BRFRFLXA								
BRKRFLXA								
CITRFLXA								
CLHNFLXA								
CRCYFLXA								
DWPKFLXA								
FLRHFLXA								
FTWHFLXA								
HGSPFLXA								
HLRDFLXA								
HSNGFLXA								
INTRFLXA								
JNGSFLXA								
JSPRFLXA								
LKBTFLXA								
LRVLFLXA								
LVOKFLXA								
MAYOFLXA								
MCINFLXA								
MLRSFLXA								
ORSPFLXA								
RAFRFLXA								
WALDFLXA								
WHSPFLXA								
WLBRFLXA								


crt Assigned Investment
Capital Cost General Suppo
clli
Motor Vehicles Investment
Buildings Investment
Garage Work Eqpt Investment
Other Work Eqpt Investment
Furniture Cap Cost
Office Eqpt Cap Cost
Gen Purpose Computers Cap Cost
Motor Vehicles Cap Cost
Buildings Cap Cost
ALCHFLXA
BORAFLXA
BRFRFLXA
BRKRFLXA
CITRFLXA
CLHNFLXA
CRCYFLXA
DWPKFLXA
FLRHFLXA
FTWHFLXA
HGSPFLXA
HLRDFLXA
HSNGFLXA
INTRFLXA
JNGSFLXA
JSPRFLXA
LKBTFLXA
LRVLFLXA
LVOKFLXA
MAYOFLXA
MCINFLXA
MLRSFLXA
ORSPFLXA
RAFRFLXA
WALDFLXA
WHSPFLXA
WLBRFLXA

clli	rt	Garage Work Eqpt Cap Cost	Other Work Eqpt Cap Cost	General Support Cap Cost	Other Expenses	Network Operations Expense	Network Support Expense	Misc Expense	Operating Taxes	Total Support & Other Expense	Interoffice/ Switching NetOps
ALCHFLXA											
BORAFLXA											
BRFRFLXA											
BRKRFLXA											
CITRFLXA											
CLHNFLXA											
CRCYFLXA											
DWPKFLXA											
FLRHFLXA											
FTWHFLXA											
HGSPFLXA											
HLRDFLXA											
HSNGFLXA											
INTRFLXA											
JNGSFLXA											
JSPRFLXA											
LKBTFLXA											
LRVLFLXA											
LVOKFLXA											
MAYOFLXA											
MCINFLXA											
MLRSFLXA											
ORSPFLXA											
RAFRFLXA											
WALDFLXA											
WHSPFLXA											
WLBRFLXA											

clli	Interoffice/ Switching Direct Expense	Carrier-to-Carrier Customer Service	Inverse Carrier to-Carrier Expense Factor	Distribution Total Cost	NID Total Cost	Concentrator Total Cost	Feeder Total Cost	EO Switching Total Cost	Signaling Total Cost
ALCHFLXA	[redacted]								
BORAFLXA									
BRFRFLXA									
BRKRFLXA									
CITRFLXA									
CLHNFLXA									
CRCYFLXA									
DWPKFLXA									
FLRHFLXA									
FTWHFLXA									
HGSPFLXA									
HLRDFLXA									
HSNGFLXA									
INTRFLXA									
JNGSFLXA									
JSPRFLXA									
LKBTFLXA									
LRVLFLXA									
LVOKFLXA									
MAYOFLXA									
MCINFLXA									
MLRSFLXA									
ORSPFLXA									
RAFRFLXA									
WALDFLXA									
WHSPFLXA									
WLBRFLXA									

	Cost Totals									
clli	Dedicated Transport Total Cost	Dedicated Transmission Total Cost	Direct Transport Total Cost	Direct Transmission Total Cost	Common Transport Total Cost	Common Transmission Total Cost	Tandem Total Cost	Operator Total Cost	Public Total Cost	Distribution Unit Cost
ALCHFLXA										
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

clli	NID Unit Cost	Concentrator Unit Cost	Feeder Unit Cost	EO Switching Line Port Unit Cost	EO Switching Usage Unit Cost	Signaling STP Unit Cost	Signaling SCP Unit Cost	Signaling Links Unit Cost	UNE Unit Costs: Dedicated Transport Unit Cost per DS0/mo	UNE Unit Costs: Dedicated Transport Unit Cost per min
ALCHFLXA										
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

Investment Input

clli	Dedicated Transmisslon Unit Cost per DS0/mo	Dedicated Transmission Unit Cost per min	Direct Transport Unit Cost per minute	Direct Transmisssion Unit Cost	Common Transport Unit Cost per minute per leg	Common Transmission Unit Cost per minute	Tandem Switching Unit Cost	Operator Total Cost/Line/Mo	Public Telephone Unit Cost	Loop
ALCHFLXA	[redacted]									
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

USF Unit Costs

clli	Line Port	EO Usage	Signaling	Transport	Billing/Bill Inquiries	Directory Listing	LNP (when available)	Total Monthly Cost per Line	Total Switched Lines	Total Households
ALCHFLXA										
BORAFLXA										
BRFRFLXA										
BRKRFLXA										
CITRFLXA										
CLHNFLXA										
CRCYFLXA										
DWPKFLXA										
FLRHFLXA										
FTWHFLXA										
HGSPFLXA										
HLRDFLXA										
HSNGFLXA										
INTRFLXA										
JNGSFLXA										
JSPRFLXA										
LKBTFLXA										
LRVLFLXA										
LVOKFLXA										
MAYOFLXA										
MCINFLXA										
MLRSFLXA										
ORSPFLXA										
RAFRFLXA										
WALDFLXA										
WHSPFLXA										
WLBRFLXA										

% of Loop Assigned for USF:	**100%**								
% of Port Assigned for USF:	**100%**								
Bus/Res local DEM usage ratio:	**110%**								
			Entry of $0.00 Indicates that Line Type is Not to be Supported						
Monthly Support Benchmark:			**$31.00**	**$0.00**	**$51.00**	**$0.00**	**$0.00**		
clli	Avg monthly cost per line	@ Residence usage per line	@ Business usage per line	Annual support for primary residence lines	Annual support for secondary residence lines	Annual support for single line business lines	Annual support for multiline business lines	Annual support for public lines	**Total annual support for specified line types**
ALCHFLXA									
BORAFLXA									
BRFRFLXA									
BRKRFLXA									
CITRFLXA									
CLHNFLXA									
CRCYFLXA									
DWPKFLXA									
FLRHFLXA									
FTWHFLXA									
HGSPFLXA									
HLRDFLXA									
HSNGFLXA									
INTRFLXA									
JNGSFLXA									
JSPRFLXA									
LKBTFLXA									
LRVLFLXA									
LVOKFLXA									
MAYOFLXA									
MCINFLXA									
MLRSFLXA									
ORSPFLXA									
RAFRFLXA									
WALDFLXA									
WHSPFLXA									
WLBRFLXA									

Florida
Alltel Florida Inc
Bu

clli	@25% Federal allocation	@75% State allocation
ALCHFLXA	[redacted]	
BORAFLXA		
BRFRFLXA		
BRKRFLXA		
CITRFLXA		
CLHNFLXA		
CRCYFLXA		
DWPKFLXA		
FLRHFLXA		
FTWHFLXA		
HGSPFLXA		
HLRDFLXA		
HSNGFLXA		
INTRFLXA		
JNGSFLXA		
JSPRFLXA		
LKBTFLXA		
LRVLFLXA		
LVOKFLXA		
MAYOFLXA		
MCINFLXA		
MLRSFLXA		
ORSPFLXA		
RAFRFLXA		
WALDFLXA		
WHSPFLXA		
WLBRFLXA		

Line Type	Support Grand Totals
Primary residence lines	$14,202,006
Secondary residence lines	$0
Single line business lines	$23,987
Multiline business lines	$0
Public lines	$0
All switched lines	$14,225,993

HAI Model Release 5.0a - Expense Module
Wire Center Level Summary

Florida Alltel Florida Inc

clli	total lines	business lines	residential lines	special access lines	public lines	households	copper feeder cable u/g	copper feeder cable buried	copper feeder cable aerial	fiber feeder cable u/g	fiber feeder cable buried	fiber feeder cable aerial	total feeder conduit

total feeder manholes	copper feeder u/g placement	fiber feeder u/g placement	copper feeder buried placement	fiber feeder buried placement	feeder pole inv	distribution cable underground	distribution cable buried	distribution cable aerial	distribution conduit	distribution conduit placement	distribution buried placement

distribution poles	calc copper feeder fill	calc distribution fill	calc "mainframe fill"	DLC inv w/site	SAI Inv	terminal inv	drop inv	NID inv	feeder distance	total distribution distributionanc e	DLC lines	end office switching

MDF/protect or Inv	end office wire center	land	local tandem switching	local tandem wire center	OS tandem switching	OS tandem wire center	OS trunks	operator position	common transport, u/g	common transport, buried	common transport, aerial	common transport, poles	common transport, conduit

common transport, manholes	common transmission terminal inv	direct transport, u/g	direct transport, buried	direct transport, aerial	direct transport, poles	direct transport, conduit	direct transport, manholes	direct transmission terminal inv	dedicated transport, u/g	dedicated transport, buried	dedicated transport, aerial	dedicated transport, poles	dedicated transport, conduit

dedicated transport, manholes	dedicated transmission terminal inv	prop local direct trunks	prop local tandem trunks	prop intraLATA direct trunks	prop intraLATA tandem trunks	prop access direct trunks	prop access tandem trunks	prop operator trunks	SCP inv	SCP wire center inv	STP inv	signaling link inv	total public telephone inv	total residential annual DEMs

total business annual DEMs	Total Investment	Total DEMs	total trunks	Distribution Direct Cost							
				Distribution Cable u/g Direct Cost	Distribution Cable Buried Direct Cost	Distribution Cable Aerial Direct Cost	Distribution in Conduit Direct Cost	Distribution Conduit Trenching Direct Cost	Distribution Poles Direct Cost	Drop Direct Cost	NID Direct Cost

Terminal Direct Cost	Distribution Buried Trenching Direct Cost	Distribution Direct Cost	Concentrator Direct Cost			Feeder Direct						
			Digital Terminal Direct Cost	Passive SAI Direct Cost	Concentrator Direct Cost	Feeder Poles Direct Cost	Feeder Aerial Cable Net Exp	Feeder Cu Aerial Cable Cap Cost	Feeder Fiber Aerial Cable Cap Cost	Feeder Buried Cable Net Exp	Feeder Cu Buried Cable Cap Cost	Feeder Fiber Cable Buried Cap Cost

Cost						EO Switching Direct Cost				Signaling Direct		
Feeder U/G Cable Net Exp	Feeder Cu U/G Cable Cap Cost	Feeder Fiber U/G Cable Cap Cost	Feeder Conduit Direct Cost	Feeder Manhole Direct Cost	Feeder Direct Cost	EO Wire Center Direct Cost	EO Switching Direct Cost	EO MDF/Prot Direct Cost	EO Switching Direct Cost	STP Direct Cost	Links Direct Cost	SCP Direct Cost

Cost		Dedicated Transport Direct Cost								Direct Transport Direct C				
SCP Wire Center Direct Cost	Signaling Direct Cost	Ded Xport U/G Direct Cost	Ded Xport Buried Direct Cost	Ded Xport Aerial Direct Cost	Ded Xport Poles Direct Cost	Ded Xport Conduit Direct Cost	Ded Xport Manholes Direct Cost	Ded Xport Xmission Direct Cost	Ded Xport Direct Cost	Direct Xport U/G Direct Cost	Direct Xport Buried Direct Cost	Direct Xport Aerial Direct Cost	Direct Xport Poles Direct Cost	Direct Xport Conduit Direct Cost

ost			Common Xport Direct Cost						Tandem Switching Direct Cost			
Direct Xport Manholes Direct Cost	Direct Xport Xmission Direct Cost	Direct Transport Direct Cost	Common Xport U/G Direct Cost	Common Xport Buried Direct Cost	Comm Xport Aerial Direct Cost	Comm Xport Poles Direct Cost	Comm Xport Conduit Direct Cost	Comm Xport Manhole s Direct Cost	Comm Xport Xmission Direct Cost	Common Xport Direct Cost	Tandem Wire Center Direct Cost	Tandem Switching Direct Cost	Tandem Switching Direct Cost	OS Tandem Switching Direct Cost

Operator Direct Cost						Allocation Factors				General Su		
OS Tandem Wire Center Direct Cost	OS Trunks Direct Cost	OS Position Direct Cost	Operator Wages	Operator Direct Cost	Public Telephone Direct Cost	Total Investment (after sharing)	% Investment	Total Direct Expense	% Direct Expense	Furniture Investment	Office Equipment Investment	Gen Purpose Computers Investment

pport Assigned Investment				Capital Cost General Support								
Motor Vehicles Investment	Buildings Investment	Garage Work Eqpt Investment	Other Work Eqpt Investment	Furniture Cap Cost	Office Eqpt Cap Cost	Gen Purpose Computers Cap Cost	Motor Vehicles Cap Cost	Buildings Cap Cost	Garage Work Eqpt Cap Cost	Other Work Eqpt Cap Cost	General Support Cap Cost	Network Operations Expense

Other Expenses												
Network Support Expense	Misc Expense	Operating Taxes	Total Support & Other Expense	Interoffice/ Switching NetOps	Interoffice/ Switching Direct Expense	Carrier (& Carrier Customer) Service	Distribution Total Cost	NID Total Cost	Concentrator Total Cost	Feeder Total Cost	EO Switching Total Cost	

Cost Totals

Signaling Total Cost	Dedicated Transport Total Cost	Dedicated Transmissio n Total Cost	Direct Transport Total Cost	Direct Transmissio n Total Cost	Common Transport Total Cost	Common Transmissi on Total Cost	Tandem Total Cost	Operator Total Cost	Public Total Cost

Use this sheet to vary the proportion of expenses assigned to loop-related network elements on the basis of lines and on the basis of direct expenses, respectively. Change only the % assigned "per line" -- the "per direct cost" will be calculated.

	Total Annual Amount assigned to loops	% to be assigned per line	% to be assigned per direct cost	Annual Amount to be assigned per line	Annual Amount to be assigned per direct cost
General Support - Loops					
Furniture - Capital Costs		0%	100%	$ -	
Furniture - Expenses		0%	100%	$ -	
Office Equipment - Capital Costs		0%	100%	$ -	
Office Equipment - Expenses		0%	100%	$ -	
General Purpose Computer - Capital Costs		0%	100%	$ -	
General Purpose Computer - Expenses		0%	100%	$ -	
Motor Vehicles - Capital Costs		0%	100%	$ -	
Motor Vehicles - Expenses		0%	100%	$ -	
Buildings - Capital Costs		0%	100%	$ -	
Buildings - Expenses		0%	100%	$ -	
Garage Work Eqpt. - Capital Costs		0%	100%	$ -	
Garage Work Eqpt. - Expenses		0%	100%	$ -	
Other Work Eqpt. - Capital Costs		0%	100%	$ -	
Other Work Eqpt. - Expenses		0%	100%	$ -	
Total General Support				$ -	
Network Operations		0%	100%	$ -	
Other Taxes		0%	100%	$ -	
Variable Overhead		0%	100%	$ -	
Totals				$ -	

	Totals
Direct Costs	
Loop-related direct costs	[redacted]
Non-Loop-related direct costs	
Total	
Loop Fraction	
Network Operations	[redacted]

	Total Annual Amount	Amount Assigned to Loops	Amount Assigned to Other UNEs
General Support - Totals			
Furniture - Capital Costs	[redacted]		
Furniture - Expenses			
Office Equipment - Capital Costs			
Office Equipment - Expenses			
General Purpose Computer - Capital Costs			
General Purpose Computer - Expenses			
Motor Vehicles - Capital Costs			
Motor Vehicles - Expenses			
Buildings - Capital Costs			
Buildings - Expenses			
Garage Work Eqpt. - Capital Costs			
Garage Work Eqpt. - Expenses			
Other Work Eqpt. - Capital Costs			
Other Work Eqpt. - Expenses			
Total General Support			
Network Operations			
Other Taxes Calculation			
Total Direct Costs			
Total Network Operations			
Total General Support			
Total			
Other Taxes			
Total Expenses and Other Taxes			
Variable Overhead Calculation			
Variable Overhead			
Total Cost with Variable Overhead			

UNE Expense Asssignment		Totals
NID		
	per line cost	[redacted]
	per direct cost	
	total	
Distribution		
	per line cost	
	per direct cost	
	total	
Concentrator		
	per line cost	
	per direct cost	
	total	
Feeder		
	per line cost	
	per direct cost	
	total	

DeprecLife	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CCCFact	1.08590	0.58672	0.42127	0.33925	0.29060	0.25862	0.23618	0.21968	0.20714	0.19737	0.18962	0.18336	0.17825	0.17405	0.17056	0.16765	0.16520	0.16315	0.16142	0.15997
DeprecFact	1.00000	0.50000	0.33333	0.25000	0.20000	0.16667	0.14286	0.12500	0.11111	0.10000	0.09091	0.08333	0.07692	0.07143	0.06667	0.06250	0.05882	0.05556	0.05263	0.05000
RORFact	0.05578	0.05632	0.05711	0.05796	0.05883	0.05971	0.06060	0.06148	0.06236	0.06323	0.06410	0.06496	0.06580	0.06664	0.06747	0.06828	0.06908	0.06987	0.07065	0.07141
TaxGUFact	0.03012	0.03041	0.03083	0.03129	0.03177	0.03224	0.03272	0.03320	0.03367	0.03414	0.03461	0.03507	0.03553	0.03598	0.03643	0.03687	0.03730	0.03773	0.03814	0.03856

COE			EquityF			WACC			Tax	39.25%
COD			EquityP			GrUpROR			Discf	

NPV-EoP	0.97760	1.00498	1.03058	1.05453	1.07696	1.09796	1.11766	1.13613	1.15346	1.16974	1.18505	1.19943	1.21297	1.22572	1.23774	1.24907	1.25975	1.26984	1.27938	1.28839
NPV-BoP	1.08306	1.11339	1.14175	1.16829	1.19313	1.21641	1.23822	1.25869	1.27789	1.29593	1.31288	1.32882	1.34382	1.35795	1.37126	1.38381	1.39565	1.40683	1.41739	1.42737
Pmt-EoP	1.14148	0.61675	0.44283	0.35661	0.30547	0.27186	0.24826	0.23092	0.21774	0.20748	0.19932	0.19274	0.18738	0.18296	0.17929	0.17623	0.17366	0.17150	0.16968	0.16815
Pmt-BoP	1.03033	0.55670	0.39971	0.32189	0.27573	0.24539	0.22409	0.20844	0.19654	0.18727	0.17991	0.17398	0.16913	0.16514	0.16183	0.15907	0.15675	0.15480	0.15316	0.15178
Year																				
1	1.08306	0.62459	0.47177	0.39536	0.34951	0.31894	0.29711	0.28074	0.26800	0.25781	0.24948	0.24253	0.23665	0.23162	0.22725	0.22343	0.22006	0.21706	0.21438	0.21197
2		0.54153	0.41639	0.35383	0.31628	0.29126	0.27338	0.25997	0.24954	0.24120	0.23438	0.22869	0.22388	0.21975	0.21617	0.21305	0.21029	0.20783	0.20564	0.20366
3			0.36102	0.31230	0.28306	0.26357	0.24965	0.23921	0.23109	0.22459	0.21927	0.21485	0.21110	0.20788	0.20510	0.20266	0.20051	0.19860	0.19689	0.19536
4				0.27077	0.24984	0.23588	0.22592	0.21844	0.21263	0.20798	0.20417	0.20100	0.19832	0.19602	0.19403	0.19228	0.19074	0.18937	0.18815	0.18705
5					0.21661	0.20820	0.20219	0.19768	0.19417	0.19137	0.18907	0.18716	0.18554	0.18415	0.18295	0.18190	0.18097	0.18015	0.17941	0.17874
6						0.18051	0.17845	0.17691	0.17571	0.17475	0.17397	0.17332	0.17276	0.17229	0.17188	0.17152	0.17120	0.17092	0.17066	0.17044
7							0.15472	0.15615	0.15726	0.15814	0.15887	0.15947	0.15998	0.16042	0.16080	0.16113	0.16143	0.16169	0.16192	0.16213
8								0.13538	0.13880	0.14153	0.14377	0.14563	0.14720	0.14856	0.14973	0.15075	0.15166	0.15246	0.15318	0.15383
9									0.12034	0.12492	0.12866	0.13179	0.13443	0.13669	0.13865	0.14037	0.14188	0.14323	0.14443	0.14552
10										0.10831	0.11356	0.11794	0.12165	0.12482	0.12758	0.12999	0.13211	0.13400	0.13569	0.13721
11											0.09846	0.10410	0.10887	0.11296	0.11650	0.11960	0.12234	0.12477	0.12695	0.12891
12												0.09026	0.09609	0.10109	0.10543	0.10922	0.11257	0.11554	0.11821	0.12060
13													0.08331	0.08923	0.09435	0.09884	0.10280	0.10631	0.10946	0.11230
14														0.07736	0.08328	0.08846	0.09302	0.09709	0.10072	0.10399
15															0.07220	0.07807	0.08325	0.08786	0.09198	0.09568
16																0.06769	0.07348	0.07863	0.08323	0.08738
17																	0.06371	0.06940	0.07449	0.07907
18																		0.06017	0.06575	0.07077
19																			0.05700	0.06246
20																				0.05415
21																				
22																				
23																				
24																				
25																				
26																				
27																				
28																				
29																				
30																				
31																				
32																				
33																				
34																				
35																				
36																				
37																				
38																				
39																				
40																				

DeprecLife	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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DeprecLife	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CCCFact	0.15874	0.15770	0.15684	0.15611	0.15551	0.15501	0.15460	0.15428	0.15402	0.15382	0.15367	0.15356	0.15349	0.15346	0.15346	0.15348	0.15352	0.15358	0.15366	0.15375
DeprecFact	0.04762	0.04545	0.04348	0.04167	0.04000	0.03846	0.03704	0.03571	0.03448	0.03333	0.03226	0.03125	0.03030	0.02941	0.02857	0.02778	0.02703	0.02632	0.02564	0.02500
RORFact	0.07216	0.07289	0.07361	0.07432	0.07501	0.07568	0.07635	0.07699	0.07762	0.07824	0.07884	0.07943	0.08000	0.08056	0.08110	0.08163	0.08214	0.08265	0.08313	0.08361
TaxGUFact	0.03806	0.03936	0.03975	0.04013	0.04050	0.04086	0.04122	0.04157	0.04191	0.04224	0.04257	0.04288	0.04319	0.04349	0.04379	0.04407	0.04435	0.04462	0.04489	0.04514
COE																				
COD																				
NPV-EoP	1.20692	1.30499	1.31264	1.31989	1.32676	1.33329	1.33949	1.34539	1.35100	1.35633	1.36142	1.36626	1.37088	1.37529	1.37950	1.38353	1.38737	1.39105	1.39458	1.39795
NPV-BoP	1.43682	1.44577	1.45424	1.46227	1.46989	1.47712	1.48399	1.49052	1.49674	1.50265	1.50828	1.51365	1.51877	1.52365	1.52832	1.53277	1.53703	1.54111	1.54502	1.54876
Pmt-EoP	0.16686	0.16578	0.16486	0.16410	0.16347	0.16294	0.16252	0.16217	0.16190	0.16169	0.16153	0.16142	0.16135	0.16132	0.16131	0.16133	0.16138	0.16145	0.16153	0.16162
Pmt-BoP	0.15061	0.14963	0.14881	0.14812	0.14755	0.14708	0.14669	0.14638	0.14613	0.14594	0.14580	0.14570	0.14564	0.14561	0.14561	0.14563	0.14567	0.14572	0.14580	0.14589
Year																				
1	0.20978	0.20780	0.20599	0.20433	0.20280	0.20139	0.20008	0.19887	0.19774	0.19668	0.19570	0.19477	0.19391	0.19309	0.19232	0.19159	0.19090	0.19025	0.18963	0.18904
2	0.20187	0.20025	0.19876	0.19740	0.19615	0.19500	0.19393	0.19294	0.19201	0.19115	0.19034	0.18958	0.18887	0.18820	0.18757	0.18698	0.18641	0.18588	0.18537	0.18489
3	0.19396	0.19270	0.19154	0.19048	0.18951	0.18861	0.18778	0.18700	0.18628	0.18561	0.18498	0.18439	0.18384	0.18332	0.18283	0.18236	0.18192	0.18151	0.18111	0.18074
4	0.18605	0.18515	0.18432	0.18356	0.18286	0.18222	0.18162	0.18107	0.18055	0.18007	0.17962	0.17920	0.17880	0.17843	0.17808	0.17775	0.17743	0.17714	0.17685	0.17658
5	0.17814	0.17760	0.17710	0.17664	0.17622	0.17583	0.17547	0.17514	0.17483	0.17454	0.17426	0.17401	0.17377	0.17355	0.17333	0.17313	0.17294	0.17276	0.17259	0.17243
6	0.17023	0.17004	0.16987	0.16972	0.16957	0.16944	0.16932	0.16920	0.16910	0.16900	0.16891	0.16882	0.16874	0.16866	0.16859	0.16852	0.16845	0.16839	0.16833	0.16828
7	0.16232	0.16249	0.16265	0.16280	0.16293	0.16305	0.16317	0.16327	0.16337	0.16346	0.16355	0.16363	0.16370	0.16377	0.16384	0.16390	0.16396	0.16402	0.16407	0.16413
8	0.15441	0.15494	0.15543	0.15587	0.15628	0.15666	0.15701	0.15734	0.15764	0.15792	0.15819	0.15844	0.15867	0.15889	0.15909	0.15929	0.15947	0.15965	0.15981	0.15997
9	0.14650	0.14739	0.14821	0.14895	0.14964	0.15027	0.15086	0.15141	0.15191	0.15239	0.15283	0.15324	0.15363	0.15400	0.15435	0.15468	0.15498	0.15528	0.15556	0.15582
10	0.13859	0.13984	0.14098	0.14203	0.14299	0.14388	0.14471	0.14547	0.14618	0.14685	0.14747	0.14805	0.14860	0.14912	0.14960	0.15006	0.15049	0.15091	0.15130	0.15167
11	0.13068	0.13229	0.13376	0.13511	0.13635	0.13749	0.13855	0.13954	0.14046	0.14131	0.14211	0.14286	0.14357	0.14423	0.14486	0.14545	0.14600	0.14653	0.14704	0.14751
12	0.12277	0.12474	0.12654	0.12819	0.12970	0.13111	0.13240	0.13361	0.13473	0.13577	0.13675	0.13767	0.13853	0.13934	0.14011	0.14083	0.14152	0.14216	0.14278	0.14336
13	0.11486	0.11719	0.11932	0.12127	0.12306	0.12472	0.12625	0.12767	0.12900	0.13024	0.13139	0.13248	0.13350	0.13446	0.13536	0.13622	0.13703	0.13779	0.13852	0.13921
14	0.10695	0.10964	0.11209	0.11434	0.11642	0.11833	0.12010	0.12174	0.12327	0.12470	0.12604	0.12729	0.12846	0.12957	0.13062	0.13160	0.13254	0.13342	0.13426	0.13505
15	0.09904	0.10209	0.10487	0.10742	0.10977	0.11194	0.11394	0.11581	0.11754	0.11916	0.12068	0.12210	0.12343	0.12469	0.12587	0.12699	0.12805	0.12905	0.13000	0.13090
16	0.09113	0.09454	0.09765	0.10050	0.10313	0.10555	0.10779	0.10988	0.11181	0.11362	0.11532	0.11691	0.11840	0.11980	0.12112	0.12237	0.12356	0.12468	0.12574	0.12675
17	0.08322	0.08698	0.09043	0.09358	0.09648	0.09916	0.10164	0.10394	0.10609	0.10809	0.10996	0.11171	0.11336	0.11491	0.11638	0.11776	0.11907	0.12030	0.12148	0.12260
18	0.07531	0.07943	0.08320	0.08666	0.08984	0.09277	0.09549	0.09801	0.10036	0.10255	0.10460	0.10652	0.10833	0.11003	0.11163	0.11315	0.11458	0.11593	0.11722	0.11844
19	0.06740	0.07188	0.07598	0.07974	0.08319	0.08638	0.08933	0.09208	0.09463	0.09701	0.09924	0.10133	0.10330	0.10514	0.10689	0.10853	0.11009	0.11156	0.11296	0.11429
20	0.05948	0.06433	0.06876	0.07281	0.07655	0.07999	0.08318	0.08614	0.08890	0.09148	0.09388	0.09614	0.09826	0.10026	0.10214	0.10392	0.10560	0.10719	0.10870	0.11014
21	0.05157	0.05678	0.06153	0.06589	0.06990	0.07360	0.07703	0.08021	0.08317	0.08594	0.08852	0.09095	0.09323	0.09537	0.09739	0.09930	0.10111	0.10282	0.10444	0.10598
22		0.04923	0.05431	0.05897	0.06326	0.06721	0.07088	0.07428	0.07744	0.08040	0.08317	0.08576	0.08819	0.09049	0.09265	0.09469	0.09662	0.09845	0.10018	0.10183
23			0.04709	0.05205	0.05661	0.06082	0.06472	0.06835	0.07172	0.07486	0.07781	0.08057	0.08316	0.08560	0.08790	0.09007	0.09213	0.09408	0.09592	0.09768
24				0.04513	0.04997	0.05443	0.05857	0.06241	0.06599	0.06933	0.07245	0.07538	0.07813	0.08071	0.08315	0.08546	0.08764	0.08970	0.09166	0.09352
25					0.04332	0.04805	0.05242	0.05648	0.06026	0.06379	0.06709	0.07018	0.07309	0.07583	0.07841	0.08084	0.08315	0.08533	0.08740	0.08937
26						0.04166	0.04627	0.05055	0.05453	0.05825	0.06173	0.06499	0.06806	0.07094	0.07366	0.07623	0.07866	0.08096	0.08314	0.08522
27							0.04011	0.04461	0.04880	0.05271	0.05637	0.05980	0.06302	0.06606	0.06891	0.07162	0.07417	0.07659	0.07888	0.08107
28								0.03868	0.04308	0.04718	0.05101	0.05461	0.05799	0.06117	0.06417	0.06700	0.06968	0.07222	0.07463	0.07691
29									0.03735	0.04164	0.04565	0.04942	0.05296	0.05628	0.05942	0.06239	0.06519	0.06785	0.07037	0.07276
30										0.03610	0.04030	0.04423	0.04792	0.05140	0.05468	0.05777	0.06070	0.06347	0.06611	0.06861
31											0.03494	0.03904	0.04289	0.04651	0.04993	0.05316	0.05621	0.05910	0.06185	0.06445
32												0.03385	0.03785	0.04163	0.04518	0.04854	0.05172	0.05473	0.05759	0.06030
33													0.03282	0.03674	0.04044	0.04393	0.04723	0.05036	0.05333	0.05615
34														0.03185	0.03569	0.03931	0.04274	0.04599	0.04907	0.05199
35															0.03094	0.03470	0.03825	0.04162	0.04481	0.04784
36																0.03009	0.03376	0.03724	0.04055	0.04369
37																	0.02927	0.03287	0.03629	0.03954
38																		0.02850	0.03203	0.03538
39																			0.02777	0.03123
40																				0.02708

DepreciLife	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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DeprecLife	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CCCFact	0.15386	0.15397	0.15409	0.15422	0.15435	0.15449	0.15463	0.15477	0.15492	0.15506	0.15521	0.15536	0.15550	0.15565	0.15580	0.15594	0.15608	0.15623	0.15637	0.15650
DeprecFact	0.02439	0.02381	0.02326	0.02273	0.02222	0.02174	0.02128	0.02083	0.02041	0.02000	0.01961	0.01923	0.01887	0.01852	0.01818	0.01786	0.01754	0.01724	0.01695	0.01667
RORFact	0.08407	0.08452	0.08496	0.08539	0.08580	0.08620	0.08660	0.08698	0.08735	0.08771	0.08806	0.08840	0.08873	0.08905	0.08936	0.08967	0.08997	0.09025	0.09053	0.09081
TaxGUFact	0.04539	0.04564	0.04587	0.04610	0.04633	0.04654	0.04676	0.04696	0.04716	0.04736	0.04754	0.04773	0.04791	0.04808	0.04825	0.04842	0.04858	0.04873	0.04888	0.04903
COE																				
COD																				
NPV-EoP	1.40119	1.40429	1.40727	1.41013	1.41287	1.41551	1.41805	1.42050	1.42285	1.42512	1.42730	1.42941	1.43144	1.43341	1.43530	1.43714	1.43891	1.44062	1.44228	1.44389
NPV-BoP	1.55234	1.55578	1.55908	1.56224	1.56529	1.56821	1.57102	1.57373	1.57634	1.57885	1.58127	1.58361	1.58586	1.58804	1.59014	1.59217	1.59413	1.59603	1.59787	1.59964
Pmt-EoP	0.16173	0.16185	0.16198	0.16211	0.16225	0.16239	0.16254	0.16269	0.16284	0.16300	0.16315	0.16331	0.16346	0.16362	0.16377	0.16392	0.16407	0.16422	0.16437	0.16451
Pmt-BoP	0.14598	0.14609	0.14620	0.14632	0.14645	0.14658	0.14671	0.14685	0.14699	0.14713	0.14727	0.14741	0.14755	0.14769	0.14782	0.14796	0.14810	0.14823	0.14836	0.14849
Year																				
1	0.18848	0.18795	0.18744	0.18696	0.18650	0.18605	0.18563	0.18522	0.18483	0.18446	0.18410	0.18375	0.18342	0.18310	0.18279	0.18249	0.18221	0.18193	0.18166	0.18140
2	0.18443	0.18400	0.18358	0.18318	0.18280	0.18244	0.18209	0.18176	0.18144	0.18114	0.18084	0.18056	0.18029	0.18002	0.17977	0.17953	0.17929	0.17907	0.17885	0.17863
3	0.18038	0.18004	0.17972	0.17941	0.17911	0.17883	0.17856	0.17830	0.17805	0.17781	0.17758	0.17736	0.17715	0.17695	0.17675	0.17656	0.17638	0.17620	0.17603	0.17587
4	0.17633	0.17609	0.17585	0.17563	0.17542	0.17522	0.17503	0.17484	0.17466	0.17449	0.17433	0.17417	0.17402	0.17387	0.17373	0.17359	0.17346	0.17334	0.17321	0.17310
5	0.17228	0.17213	0.17199	0.17186	0.17173	0.17161	0.17149	0.17138	0.17127	0.17117	0.17107	0.17098	0.17088	0.17080	0.17071	0.17063	0.17055	0.17047	0.17040	0.17033
6	0.16823	0.16818	0.16813	0.16808	0.16804	0.16800	0.16796	0.16792	0.16788	0.16785	0.16781	0.16778	0.16775	0.16772	0.16769	0.16766	0.16763	0.16761	0.16758	0.16756
7	0.16417	0.16422	0.16426	0.16431	0.16435	0.16439	0.16442	0.16446	0.16449	0.16452	0.16456	0.16459	0.16461	0.16464	0.16467	0.16470	0.16472	0.16474	0.16477	0.16479
8	0.16012	0.16027	0.16040	0.16053	0.16066	0.16077	0.16089	0.16100	0.16110	0.16120	0.16130	0.16139	0.16148	0.16157	0.16165	0.16173	0.16181	0.16188	0.16195	0.16202
9	0.15607	0.15631	0.15654	0.15676	0.15696	0.15716	0.15735	0.15754	0.15771	0.15788	0.15804	0.15820	0.15835	0.15849	0.15863	0.15876	0.15889	0.15902	0.15914	0.15925
10	0.15202	0.15235	0.15267	0.15298	0.15327	0.15355	0.15382	0.15408	0.15432	0.15456	0.15478	0.15500	0.15521	0.15541	0.15561	0.15580	0.15598	0.15615	0.15632	0.15648
11	0.14797	0.14840	0.14881	0.14921	0.14958	0.14994	0.15028	0.15061	0.15093	0.15123	0.15153	0.15181	0.15208	0.15234	0.15259	0.15283	0.15306	0.15329	0.15351	0.15372
12	0.14392	0.14444	0.14495	0.14543	0.14589	0.14633	0.14675	0.14715	0.14754	0.14791	0.14827	0.14861	0.14894	0.14926	0.14957	0.14986	0.15015	0.15042	0.15069	0.15095
13	0.13986	0.14049	0.14109	0.14165	0.14220	0.14272	0.14322	0.14369	0.14415	0.14459	0.14501	0.14542	0.14581	0.14618	0.14655	0.14690	0.14723	0.14756	0.14787	0.14818
14	0.13581	0.13653	0.13722	0.13788	0.13851	0.13911	0.13968	0.14023	0.14076	0.14127	0.14175	0.14222	0.14267	0.14311	0.14353	0.14393	0.14432	0.14470	0.14506	0.14541
15	0.13176	0.13258	0.13336	0.13410	0.13481	0.13550	0.13615	0.13677	0.13737	0.13795	0.13850	0.13903	0.13954	0.14003	0.14051	0.14096	0.14141	0.14183	0.14224	0.14264
16	0.12771	0.12862	0.12950	0.13033	0.13112	0.13188	0.13261	0.13331	0.13398	0.13462	0.13524	0.13583	0.13641	0.13696	0.13749	0.13800	0.13849	0.13897	0.13943	0.13987
17	0.12366	0.12467	0.12563	0.12655	0.12743	0.12827	0.12908	0.12985	0.13059	0.13130	0.13198	0.13264	0.13327	0.13388	0.13447	0.13503	0.13558	0.13610	0.13661	0.13710
18	0.11961	0.12071	0.12177	0.12278	0.12374	0.12466	0.12554	0.12639	0.12720	0.12798	0.12873	0.12945	0.13014	0.13080	0.13145	0.13206	0.13266	0.13324	0.13380	0.13434
19	0.11555	0.11676	0.11791	0.11900	0.12005	0.12105	0.12201	0.12293	0.12381	0.12466	0.12547	0.12625	0.12700	0.12773	0.12843	0.12910	0.12975	0.13037	0.13098	0.13157
20	0.11150	0.11280	0.11404	0.11523	0.11636	0.11744	0.11847	0.11947	0.12042	0.12133	0.12221	0.12306	0.12387	0.12465	0.12540	0.12613	0.12683	0.12751	0.12817	0.12880
21	0.10745	0.10885	0.11018	0.11145	0.11267	0.11383	0.11494	0.11601	0.11703	0.11801	0.11895	0.11986	0.12073	0.12157	0.12238	0.12317	0.12392	0.12465	0.12535	0.12603
22	0.10340	0.10489	0.10632	0.10768	0.10897	0.11022	0.11141	0.11255	0.11364	0.11469	0.11570	0.11667	0.11760	0.11850	0.11936	0.12020	0.12100	0.12178	0.12253	0.12326
23	0.09935	0.10094	0.10245	0.10390	0.10528	0.10660	0.10787	0.10908	0.11025	0.11137	0.11244	0.11347	0.11447	0.11542	0.11634	0.11723	0.11809	0.11892	0.11972	0.12049
24	0.09530	0.09698	0.09859	0.10012	0.10159	0.10299	0.10434	0.10562	0.10686	0.10804	0.10918	0.11028	0.11133	0.11235	0.11332	0.11427	0.11518	0.11605	0.11690	0.11772
25	0.09124	0.09303	0.09473	0.09635	0.09790	0.09938	0.10080	0.10216	0.10347	0.10472	0.10593	0.10708	0.10820	0.10927	0.11030	0.11130	0.11226	0.11319	0.11409	0.11495
26	0.08719	0.08907	0.09086	0.09257	0.09421	0.09577	0.09727	0.09870	0.10008	0.10140	0.10267	0.10389	0.10506	0.10619	0.10728	0.10833	0.10935	0.11033	0.11127	0.11219
27	0.08314	0.08512	0.08700	0.08880	0.09052	0.09216	0.09373	0.09524	0.09669	0.09808	0.09941	0.10069	0.10193	0.10312	0.10426	0.10537	0.10643	0.10746	0.10846	0.10942
28	0.07909	0.08116	0.08314	0.08502	0.08682	0.08855	0.09020	0.09178	0.09330	0.09475	0.09615	0.09750	0.09879	0.10004	0.10124	0.10240	0.10352	0.10460	0.10564	0.10665
29	0.07504	0.07721	0.07927	0.08125	0.08313	0.08494	0.08666	0.08832	0.08991	0.09143	0.09290	0.09430	0.09566	0.09696	0.09822	0.09943	0.10060	0.10173	0.10282	0.10388
30	0.07098	0.07325	0.07541	0.07747	0.07944	0.08133	0.08313	0.08486	0.08652	0.08811	0.08964	0.09111	0.09252	0.09389	0.09520	0.09647	0.09769	0.09887	0.10001	0.10111
31	0.06693	0.06929	0.07155	0.07370	0.07575	0.07771	0.07960	0.08140	0.08313	0.08479	0.08638	0.08792	0.08939	0.09081	0.09218	0.09350	0.09478	0.09601	0.09719	0.09834
32	0.06288	0.06534	0.06768	0.06992	0.07206	0.07410	0.07606	0.07794	0.07974	0.08146	0.08312	0.08472	0.08626	0.08774	0.08916	0.09053	0.09186	0.09314	0.09438	0.09557
33	0.05883	0.06138	0.06382	0.06615	0.06837	0.07049	0.07253	0.07448	0.07635	0.07814	0.07987	0.08153	0.08312	0.08466	0.08614	0.08757	0.08895	0.09028	0.09156	0.09281
34	0.05478	0.05743	0.05996	0.06237	0.06468	0.06688	0.06899	0.07102	0.07296	0.07482	0.07661	0.07833	0.07999	0.08158	0.08312	0.08460	0.08603	0.08741	0.08875	0.09004
35	0.05073	0.05347	0.05609	0.05859	0.06098	0.06327	0.06546	0.06755	0.06957	0.07150	0.07335	0.07514	0.07685	0.07851	0.08010	0.08164	0.08312	0.08455	0.08593	0.08727
36	0.04667	0.04952	0.05223	0.05482	0.05729	0.05966	0.06192	0.06409	0.06618	0.06817	0.07010	0.07194	0.07372	0.07543	0.07708	0.07867	0.08020	0.08168	0.08312	0.08450
37	0.04262	0.04556	0.04837	0.05104	0.05360	0.05605	0.05839	0.06063	0.06279	0.06485	0.06684	0.06875	0.07058	0.07235	0.07406	0.07570	0.07729	0.07882	0.08030	0.08173
38	0.03857	0.04161	0.04450	0.04727	0.04991	0.05244	0.05485	0.05717	0.05940	0.06153	0.06358	0.06555	0.06745	0.06928	0.07104	0.07274	0.07437	0.07596	0.07748	0.07896
39	0.03452	0.03765	0.04064	0.04349	0.04622	0.04882	0.05132	0.05371	0.05601	0.05821	0.06032	0.06236	0.06432	0.06620	0.06802	0.06977	0.07146	0.07309	0.07467	0.07619
40	0.03047	0.03370	0.03678	0.03972	0.04253	0.04521	0.04779	0.05025	0.05262	0.05489	0.05707	0.05916	0.06118	0.06312	0.06500	0.06680	0.06855	0.07023	0.07185	0.07342

DepreciLife	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
41	0.02642	0.02974	0.03291	0.03594	0.03883	0.04160	0.04425	0.04679	0.04922	0.05156	0.05381	0.05597	0.05805	0.06005	0.06198	0.06384	0.06563	0.06736	0.06904	0.07066
42		0.02579	0.02905	0.03217	0.03514	0.03799	0.04072	0.04333	0.04583	0.04824	0.05055	0.05277	0.05491	0.05697	0.05896	0.06087	0.06272	0.06450	0.06622	0.06789
43			0.02519	0.02839	0.03145	0.03438	0.03718	0.03987	0.04244	0.04492	0.04729	0.04958	0.05178	0.05390	0.05594	0.05790	0.05980	0.06164	0.06341	0.06512
44				0.02462	0.02776	0.03077	0.03365	0.03641	0.03905	0.04160	0.04404	0.04639	0.04864	0.05082	0.05292	0.05494	0.05689	0.05877	0.06059	0.06235
45					0.02407	0.02716	0.03011	0.03295	0.03566	0.03827	0.04078	0.04319	0.04551	0.04774	0.04990	0.05197	0.05397	0.05591	0.05778	0.05958
46						0.02354	0.02658	0.02949	0.03227	0.03495	0.03752	0.04000	0.04238	0.04467	0.04688	0.04900	0.05106	0.05304	0.05496	0.05681
47							0.02304	0.02602	0.02888	0.03163	0.03427	0.03680	0.03924	0.04159	0.04385	0.04604	0.04814	0.05018	0.05214	0.05404
48								0.02256	0.02549	0.02831	0.03101	0.03361	0.03611	0.03851	0.04083	0.04307	0.04523	0.04731	0.04933	0.05128
49									0.02210	0.02498	0.02775	0.03041	0.03297	0.03544	0.03781	0.04011	0.04232	0.04445	0.04651	0.04851
50										0.02166	0.02449	0.02722	0.02984	0.03236	0.03479	0.03714	0.03940	0.04159	0.04370	0.04574
51											0.02124	0.02402	0.02670	0.02929	0.03177	0.03417	0.03649	0.03872	0.04088	0.04297
52												0.02083	0.02357	0.02621	0.02875	0.03121	0.03357	0.03586	0.03807	0.04020
53													0.02044	0.02313	0.02573	0.02824	0.03066	0.03299	0.03525	0.03743
54														0.02006	0.02271	0.02527	0.02774	0.03013	0.03243	0.03466
55															0.01969	0.02231	0.02483	0.02727	0.02962	0.03180
56																0.01934	0.02192	0.02440	0.02680	0.02913
57																	0.01900	0.02154	0.02399	0.02636
58																		0.01867	0.02117	0.02359
59																			0.01836	0.02082
60																				0.01805
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DeprecLife	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
CCCFact	0.15664	0.15677	0.15690	0.15703	0.15716	0.15729	0.15741	0.15753	0.15765	0.15776	0.15787	0.15799	0.15809	0.15820	0.15830	0.15841	0.15851	0.15860	0.15870	0.15879	0.15889
DeprecFact	0.01639	0.01613	0.01587	0.01563	0.01538	0.01515	0.01493	0.01471	0.01449	0.01429	0.01408	0.01389	0.01370	0.01351	0.01333	0.01316	0.01299	0.01282	0.01266	0.01250	0.01235
RORFact	0.09107	0.09133	0.09158	0.09183	0.09207	0.09230	0.09253	0.09275	0.09296	0.09317	0.09337	0.09357	0.09377	0.09396	0.09414	0.09432	0.09450	0.09467	0.09484	0.09500	0.09516
TaxGUFact	0.04917	0.04931	0.04945	0.04958	0.04971	0.04983	0.04996	0.05008	0.05019	0.05031	0.05042	0.05052	0.05063	0.05073	0.05083	0.05093	0.05102	0.05111	0.05121	0.05129	0.05138
COE																					
COD																					
NPV-EoP	1.44544	1.44695	1.44841	1.44982	1.45120	1.45253	1.45383	1.45508	1.45630	1.45749	1.45865	1.45977	1.46086	1.46193	1.46296	1.46397	1.46496	1.46592	1.46685	1.46776	1.46865
NPV-BoP	1.60137	1.60304	1.60465	1.60622	1.60774	1.60922	1.61066	1.61205	1.61340	1.61472	1.61600	1.61724	1.61846	1.61963	1.62078	1.62190	1.62299	1.62405	1.62509	1.62610	1.62708
Pmt-EoP	0.16466	0.16480	0.16493	0.16507	0.16520	0.16533	0.16546	0.16559	0.16571	0.16583	0.16595	0.16607	0.16618	0.16630	0.16641	0.16651	0.16662	0.16672	0.16682	0.16692	0.16702
Pmt-BoP	0.14862	0.14875	0.14887	0.14900	0.14912	0.14924	0.14935	0.14947	0.14958	0.14969	0.14979	0.14990	0.15000	0.15010	0.15020	0.15030	0.15039	0.15049	0.15058	0.15067	0.15075
Year																					
1	0.18115	0.18091	0.18067	0.18045	0.18023	0.18001	0.17981	0.17960	0.17941	0.17922	0.17903	0.17886	0.17868	0.17851	0.17835	0.17819	0.17803	0.17788	0.17773	0.17758	0.17744
2	0.17843	0.17823	0.17804	0.17785	0.17767	0.17750	0.17733	0.17716	0.17700	0.17685	0.17669	0.17655	0.17641	0.17627	0.17613	0.17600	0.17587	0.17575	0.17562	0.17551	0.17539
3	0.17571	0.17555	0.17540	0.17526	0.17512	0.17498	0.17485	0.17472	0.17459	0.17447	0.17436	0.17424	0.17413	0.17402	0.17392	0.17381	0.17371	0.17362	0.17352	0.17343	0.17334
4	0.17298	0.17287	0.17276	0.17266	0.17256	0.17246	0.17237	0.17228	0.17219	0.17210	0.17202	0.17193	0.17185	0.17178	0.17170	0.17163	0.17156	0.17149	0.17142	0.17135	0.17129
5	0.17026	0.17019	0.17013	0.17006	0.17000	0.16995	0.16989	0.16983	0.16978	0.16973	0.16968	0.16963	0.16958	0.16953	0.16949	0.16944	0.16940	0.16936	0.16932	0.16928	0.16924
6	0.16754	0.16751	0.16749	0.16747	0.16745	0.16743	0.16741	0.16739	0.16737	0.16735	0.16734	0.16732	0.16730	0.16729	0.16727	0.16726	0.16724	0.16723	0.16721	0.16720	0.16719
7	0.16481	0.16483	0.16485	0.16487	0.16489	0.16491	0.16493	0.16495	0.16496	0.16498	0.16500	0.16501	0.16503	0.16504	0.16506	0.16507	0.16508	0.16510	0.16511	0.16512	0.16514
8	0.16209	0.16215	0.16222	0.16228	0.16234	0.16239	0.16245	0.16250	0.16256	0.16261	0.16266	0.16270	0.16275	0.16280	0.16284	0.16288	0.16293	0.16297	0.16301	0.16305	0.16308
9	0.15937	0.15947	0.15958	0.15968	0.15978	0.15988	0.15997	0.16006	0.16015	0.16023	0.16032	0.16040	0.16048	0.16055	0.16063	0.16070	0.16077	0.16084	0.16090	0.16097	0.16103
10	0.15664	0.15680	0.15694	0.15709	0.15723	0.15736	0.15749	0.15762	0.15774	0.15786	0.15798	0.15809	0.15820	0.15831	0.15841	0.15851	0.15861	0.15871	0.15880	0.15889	0.15898
11	0.15392	0.15412	0.15431	0.15449	0.15467	0.15484	0.15501	0.15518	0.15533	0.15549	0.15564	0.15578	0.15592	0.15606	0.15620	0.15633	0.15645	0.15658	0.15670	0.15682	0.15693
12	0.15120	0.15144	0.15167	0.15190	0.15211	0.15233	0.15253	0.15273	0.15293	0.15311	0.15330	0.15348	0.15365	0.15382	0.15398	0.15414	0.15430	0.15445	0.15460	0.15474	0.15488
13	0.14847	0.14876	0.14903	0.14930	0.14956	0.14981	0.15005	0.15029	0.15052	0.15074	0.15096	0.15117	0.15137	0.15157	0.15177	0.15196	0.15214	0.15232	0.15249	0.15266	0.15283
14	0.14575	0.14608	0.14640	0.14670	0.14700	0.14729	0.14757	0.14785	0.14811	0.14837	0.14862	0.14886	0.14910	0.14933	0.14955	0.14977	0.14998	0.15019	0.15039	0.15059	0.15078
15	0.14303	0.14340	0.14376	0.14411	0.14445	0.14478	0.14509	0.14540	0.14570	0.14600	0.14628	0.14655	0.14682	0.14708	0.14734	0.14758	0.14782	0.14806	0.14829	0.14851	0.14873
16	0.14030	0.14072	0.14112	0.14151	0.14189	0.14226	0.14261	0.14296	0.14330	0.14362	0.14394	0.14425	0.14455	0.14484	0.14512	0.14540	0.14567	0.14593	0.14619	0.14643	0.14668
17	0.13758	0.13804	0.13849	0.13892	0.13934	0.13974	0.14014	0.14052	0.14089	0.14125	0.14160	0.14194	0.14227	0.14259	0.14291	0.14321	0.14351	0.14380	0.14408	0.14436	0.14463
18	0.13486	0.13536	0.13585	0.13632	0.13678	0.13722	0.13766	0.13807	0.13848	0.13888	0.13926	0.13963	0.14000	0.14035	0.14069	0.14103	0.14135	0.14167	0.14198	0.14228	0.14258
19	0.13213	0.13268	0.13321	0.13373	0.13422	0.13471	0.13518	0.13563	0.13607	0.13650	0.13692	0.13733	0.13772	0.13810	0.13848	0.13884	0.13920	0.13954	0.13988	0.14020	0.14052
20	0.12941	0.13000	0.13057	0.13113	0.13167	0.13219	0.13270	0.13319	0.13367	0.13413	0.13458	0.13502	0.13544	0.13586	0.13626	0.13666	0.13704	0.13741	0.13777	0.13813	0.13847
21	0.12669	0.12732	0.12794	0.12853	0.12911	0.12967	0.13022	0.13075	0.13126	0.13176	0.13224	0.13271	0.13317	0.13361	0.13405	0.13447	0.13488	0.13528	0.13567	0.13605	0.13642
22	0.12396	0.12464	0.12530	0.12594	0.12656	0.12716	0.12774	0.12830	0.12885	0.12938	0.12990	0.13040	0.13089	0.13137	0.13183	0.13228	0.13272	0.13315	0.13357	0.13398	0.13437
23	0.12124	0.12196	0.12266	0.12334	0.12400	0.12464	0.12526	0.12586	0.12644	0.12701	0.12756	0.12810	0.12862	0.12912	0.12962	0.13010	0.13057	0.13102	0.13147	0.13190	0.13232
24	0.11852	0.11928	0.12003	0.12075	0.12145	0.12212	0.12278	0.12342	0.12404	0.12464	0.12522	0.12579	0.12634	0.12688	0.12740	0.12791	0.12841	0.12889	0.12936	0.12982	0.13027
25	0.11579	0.11660	0.11739	0.11815	0.11889	0.11961	0.12030	0.12097	0.12163	0.12226	0.12288	0.12348	0.12407	0.12463	0.12519	0.12573	0.12625	0.12676	0.12726	0.12775	0.12822
26	0.11307	0.11393	0.11475	0.11556	0.11633	0.11709	0.11782	0.11853	0.11922	0.11989	0.12054	0.12117	0.12179	0.12239	0.12297	0.12354	0.12409	0.12463	0.12516	0.12567	0.12617
27	0.11035	0.11125	0.11212	0.11296	0.11378	0.11457	0.11534	0.11609	0.11681	0.11752	0.11820	0.11887	0.11951	0.12014	0.12076	0.12135	0.12194	0.12250	0.12305	0.12359	0.12412
28	0.10762	0.10857	0.10948	0.11037	0.11122	0.11205	0.11286	0.11365	0.11441	0.11514	0.11586	0.11656	0.11724	0.11790	0.11854	0.11917	0.11978	0.12037	0.12095	0.12152	0.12207
29	0.10490	0.10589	0.10684	0.10777	0.10867	0.10954	0.11038	0.11120	0.11200	0.11277	0.11352	0.11425	0.11496	0.11565	0.11633	0.11698	0.11762	0.11824	0.11885	0.11944	0.12002
30	0.10218	0.10321	0.10421	0.10517	0.10611	0.10702	0.10790	0.10876	0.10959	0.11040	0.11118	0.11195	0.11269	0.11341	0.11411	0.11480	0.11546	0.11611	0.11675	0.11736	0.11797
31	0.09945	0.10053	0.10157	0.10258	0.10356	0.10450	0.10542	0.10632	0.10718	0.10802	0.10884	0.10964	0.11041	0.11117	0.11190	0.11261	0.11331	0.11398	0.11464	0.11529	0.11591
32	0.09673	0.09785	0.09893	0.09998	0.10100	0.10199	0.10294	0.10387	0.10478	0.10565	0.10650	0.10733	0.10814	0.10892	0.10968	0.11043	0.11115	0.11185	0.11254	0.11321	0.11386
33	0.09401	0.09517	0.09630	0.09739	0.09844	0.09947	0.10046	0.10143	0.10237	0.10328	0.10416	0.10502	0.10586	0.10668	0.10747	0.10824	0.10899	0.10972	0.11044	0.11113	0.11181
34	0.09128	0.09249	0.09366	0.09479	0.09589	0.09695	0.09799	0.09899	0.09996	0.10091	0.10182	0.10272	0.10359	0.10443	0.10525	0.10605	0.10683	0.10759	0.10833	0.10906	0.10976
35	0.08856	0.08981	0.09102	0.09220	0.09333	0.09444	0.09551	0.09654	0.09755	0.09853	0.09948	0.10041	0.10131	0.10219	0.10304	0.10387	0.10468	0.10546	0.10623	0.10698	0.10771
36	0.08584	0.08713	0.08839	0.08960	0.09078	0.09192	0.09303	0.09410	0.09515	0.09616	0.09714	0.09810	0.09903	0.09994	0.10082	0.10168	0.10252	0.10333	0.10413	0.10490	0.10566
37	0.08311	0.08445	0.08575	0.08700	0.08822	0.08940	0.09055	0.09166	0.09274	0.09379	0.09480	0.09580	0.09676	0.09770	0.09861	0.09950	0.10036	0.10120	0.10203	0.10283	0.10361
38	0.08039	0.08177	0.08311	0.08441	0.08567	0.08689	0.08807	0.08922	0.09033	0.09141	0.09247	0.09349	0.09448	0.09545	0.09639	0.09731	0.09820	0.09908	0.09992	0.10075	0.10156
39	0.07767	0.07909	0.08048	0.08181	0.08311	0.08437	0.08559	0.08677	0.08792	0.08904	0.09013	0.09118	0.09221	0.09321	0.09418	0.09513	0.09605	0.09695	0.09782	0.09867	0.09951
40	0.07494	0.07641	0.07784	0.07922	0.08055	0.08185	0.08311	0.08433	0.08552	0.08667	0.08779	0.08887	0.08993	0.09096	0.09196	0.09294	0.09389	0.09482	0.09572	0.09660	0.09746

Deprecl.ife	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
41	0.07222	0.07374	0.07520	0.07662	0.07800	0.07933	0.08063	0.08189	0.08311	0.08429	0.08545	0.08657	0.08766	0.08872	0.08975	0.09075	0.09173	0.09269	0.09362	0.09452	0.09541
42	0.06950	0.07106	0.07256	0.07403	0.07544	0.07682	0.07815	0.07944	0.08070	0.08192	0.08311	0.08426	0.08538	0.08647	0.08753	0.08857	0.08957	0.09056	0.09151	0.09245	0.09335
43	0.06677	0.06838	0.06993	0.07143	0.07289	0.07430	0.07567	0.07700	0.07829	0.07955	0.08077	0.08195	0.08310	0.08423	0.08532	0.08638	0.08742	0.08843	0.08941	0.09037	0.09130
44	0.06405	0.06570	0.06729	0.06884	0.07033	0.07178	0.07319	0.07456	0.07588	0.07717	0.07843	0.07964	0.08083	0.08198	0.08310	0.08420	0.08526	0.08630	0.08731	0.08829	0.08925
45	0.06133	0.06302	0.06465	0.06624	0.06778	0.06927	0.07071	0.07212	0.07348	0.07480	0.07609	0.07734	0.07855	0.07974	0.08089	0.08201	0.08310	0.08417	0.08520	0.08622	0.08720
46	0.05860	0.06034	0.06202	0.06364	0.06522	0.06675	0.06823	0.06967	0.07107	0.07243	0.07375	0.07503	0.07628	0.07749	0.07867	0.07982	0.08095	0.08204	0.08310	0.08414	0.08515
47	0.05588	0.05766	0.05938	0.06105	0.06266	0.06423	0.06575	0.06723	0.06866	0.07005	0.07141	0.07272	0.07400	0.07525	0.07646	0.07764	0.07879	0.07991	0.08100	0.08206	0.08310
48	0.05316	0.05498	0.05674	0.05845	0.06011	0.06172	0.06327	0.06479	0.06625	0.06768	0.06907	0.07042	0.07173	0.07300	0.07424	0.07545	0.07663	0.07778	0.07890	0.07999	0.08105
49	0.05043	0.05230	0.05411	0.05586	0.05755	0.05920	0.06079	0.06234	0.06385	0.06531	0.06673	0.06811	0.06945	0.07076	0.07203	0.07327	0.07447	0.07565	0.07679	0.07791	0.07900
50	0.04771	0.04962	0.05147	0.05326	0.05500	0.05668	0.05831	0.05990	0.06144	0.06294	0.06439	0.06580	0.06718	0.06851	0.06981	0.07108	0.07232	0.07352	0.07469	0.07583	0.07695
51	0.04499	0.04694	0.04883	0.05067	0.05244	0.05416	0.05584	0.05746	0.05903	0.06056	0.06205	0.06349	0.06490	0.06627	0.06760	0.06890	0.07016	0.07139	0.07259	0.07376	0.07490
52	0.04226	0.04426	0.04620	0.04807	0.04989	0.05165	0.05336	0.05501	0.05662	0.05819	0.05971	0.06119	0.06262	0.06402	0.06538	0.06671	0.06800	0.06926	0.07048	0.07168	0.07285
53	0.03954	0.04158	0.04356	0.04547	0.04733	0.04913	0.05088	0.05257	0.05422	0.05582	0.05737	0.05888	0.06035	0.06178	0.06317	0.06452	0.06584	0.06713	0.06838	0.06960	0.07080
54	0.03682	0.03890	0.04092	0.04288	0.04478	0.04661	0.04840	0.05013	0.05181	0.05344	0.05503	0.05657	0.05807	0.05953	0.06095	0.06234	0.06369	0.06500	0.06628	0.06753	0.06874
55	0.03409	0.03622	0.03829	0.04028	0.04222	0.04410	0.04592	0.04769	0.04940	0.05107	0.05269	0.05427	0.05580	0.05729	0.05874	0.06015	0.06153	0.06287	0.06418	0.06545	0.06669
56	0.03137	0.03354	0.03565	0.03769	0.03966	0.04158	0.04344	0.04524	0.04699	0.04870	0.05035	0.05196	0.05352	0.05504	0.05652	0.05797	0.05937	0.06074	0.06207	0.06337	0.06464
57	0.02865	0.03087	0.03301	0.03509	0.03711	0.03906	0.04096	0.04280	0.04459	0.04632	0.04801	0.04965	0.05125	0.05280	0.05431	0.05578	0.05721	0.05861	0.05997	0.06130	0.06259
58	0.02592	0.02819	0.03038	0.03250	0.03455	0.03655	0.03848	0.04036	0.04218	0.04395	0.04567	0.04734	0.04897	0.05055	0.05209	0.05360	0.05506	0.05648	0.05787	0.05922	0.06054
59	0.02320	0.02551	0.02774	0.02990	0.03200	0.03403	0.03600	0.03791	0.03977	0.04158	0.04333	0.04504	0.04670	0.04831	0.04988	0.05141	0.05290	0.05435	0.05577	0.05714	0.05849
60	0.02048	0.02283	0.02510	0.02731	0.02944	0.03151	0.03352	0.03547	0.03736	0.03920	0.04099	0.04273	0.04442	0.04606	0.04766	0.04922	0.05074	0.05222	0.05366	0.05507	0.05644
61	0.01776	0.02015	0.02247	0.02471	0.02689	0.02899	0.03104	0.03303	0.03496	0.03683	0.03865	0.04042	0.04214	0.04382	0.04545	0.04704	0.04858	0.05009	0.05156	0.05299	0.05439
62		0.01747	0.01983	0.02211	0.02433	0.02648	0.02856	0.03059	0.03255	0.03446	0.03631	0.03811	0.03987	0.04157	0.04323	0.04485	0.04643	0.04796	0.04946	0.05092	0.05234
63			0.01719	0.01952	0.02177	0.02396	0.02608	0.02814	0.03014	0.03208	0.03397	0.03581	0.03759	0.03933	0.04102	0.04267	0.04427	0.04583	0.04735	0.04884	0.05029
64				0.01692	0.01922	0.02144	0.02360	0.02570	0.02773	0.02971	0.03163	0.03350	0.03532	0.03708	0.03881	0.04048	0.04211	0.04370	0.04525	0.04676	0.04824
65					0.01666	0.01893	0.02112	0.02326	0.02533	0.02734	0.02929	0.03119	0.03304	0.03484	0.03659	0.03829	0.03995	0.04157	0.04315	0.04469	0.04618
66						0.01641	0.01864	0.02081	0.02292	0.02496	0.02695	0.02889	0.03077	0.03259	0.03438	0.03611	0.03780	0.03944	0.04105	0.04261	0.04413
67							0.01617	0.01837	0.02051	0.02259	0.02461	0.02658	0.02849	0.03035	0.03216	0.03392	0.03564	0.03731	0.03894	0.04053	0.04208
68								0.01593	0.01810	0.02022	0.02227	0.02427	0.02621	0.02811	0.02995	0.03174	0.03348	0.03518	0.03684	0.03846	0.04003
69									0.01570	0.01785	0.01993	0.02196	0.02394	0.02586	0.02773	0.02955	0.03132	0.03305	0.03474	0.03638	0.03798
70										0.01547	0.01759	0.01966	0.02166	0.02362	0.02552	0.02737	0.02917	0.03092	0.03263	0.03430	0.03593
71											0.01525	0.01735	0.01939	0.02137	0.02330	0.02518	0.02701	0.02879	0.03053	0.03223	0.03388
72												0.01504	0.01711	0.01913	0.02109	0.02299	0.02485	0.02666	0.02843	0.03015	0.03183
73													0.01484	0.01688	0.01887	0.02081	0.02270	0.02453	0.02633	0.02807	0.02978
74														0.01464	0.01666	0.01862	0.02054	0.02240	0.02422	0.02600	0.02773
75															0.01444	0.01644	0.01838	0.02027	0.02212	0.02392	0.02568
76																0.01425	0.01622	0.01814	0.02002	0.02184	0.02363
77																	0.01407	0.01602	0.01792	0.01977	0.02157
78																		0.01389	0.01581	0.01769	0.01952
79																			0.01371	0.01561	0.01747
80																				0.01354	0.01542
81																					0.01337

	User Inputs	Calculations	
State	Florida		
Company	Alltel Florida Inc		
Cost of Capital Inputs			
Cost of Debt			
Debt fraction			
Cost of Equity			
Equity fraction			
Weighted equity fraction			
Overall Cost of Capital			
Traffic Inputs			
local DEMs, thousands	873,192		
intrastate DEMs, thousands	186,443		
interstate DEMs, thousands	184,077	1,243,712	total DEMs, thousands
Local call completion fraction	70.00%		
Total local calls attempted	197,857	138,500	Total local calls completed
Total intraLATA calls completed	11,845		
Total interLATA calls completed - intrastate	11,920		
Total interLATA calls completed - interstate	25,344		
local DEM fraction	68.21%		
local interoffice traffic fraction	48.69%		
D link investment, per link	$ 4,623		
Bus/Res DEMs ratio (local, state, interstate)	110%	200%	300%
per-line entrance facility investment	4.0		
local direct-routed fraction	98.00%		
tandem-routed intraLATA fraction	20.00%		
tandem-routed access fraction	20.00%		
maximum trunk usage, CCS	27.5		
ISUP msgs per i/o call attempt	6		
avg ISUP msg length, octets	25		
TCAP msgs per transaction	2		
TCAP msg length, octets	100		
fraction of calls requiring TCAP	10.00%		
trunk port investment, per port	$ 100		
Switch line circuit offset per DLC line	$ 5.00		
Total signaling links	53		
Average trunk utilization	30.00%		

Cost Parameters

tax rate		[redacted]
corporate overhead factor		
other taxes factor		
billing/bill inquiry per line per month	$	1.22
directory listing per line per month	$	-
forward-looking network operations factor		50.00%
alternative CO switching factor		2.69%
alternative circuit equipment factor		1.53%
EO non-port fraction		70.00%
per-line monthly LNP cost	$	0.25
Carrier-carrier customer service, per line per year	$	1.69
NID expense per line per year	$	1.00
DS-0/DS-1 crossover		12.4
DS-1/DS-3 crossover		9.9
Average lines per business location		4.00

Structure fraction assigned to telephone

density range	dist aerial	dist buried	dist underground	fdr aerial
0-5	50%	33%	100%	50%
5-100	33%	33%	50%	33%
100-200	25%	33%	50%	25%
200-650	25%	33%	50%	25%
650-850	25%	33%	40%	25%
850-2550	25%	33%	33%	25%
2550-5000	25%	33%	33%	25%
5000-10000	25%	33%	33%	25%
>10000	25%	33%	33%	25%

Usage Calculations

Intrastate Toll DEMs	186,443,000	
Interstate Toll DEMs	184,077,000	
trunk port usage	1,347,222,169	
trk-min/mo	10,044	
interLATA ded. trunks	2,457	
Common Transport MOU		
Local	8,260,371	w/o OS usage
Intrastate Toll	37,288,600	

Interstate Toll	36,815,400	
	82,364,371	
Intrastate IntraLATA Calls	11,845	49.84% SOCCC message counts
Intrastate InterLATA Calls	11,920	50.16%
	23,765	

Calculation of EO Usage

Local DEMs, incl OS	873,192,000	70.2% of total DEMs		
Intraoffice Local DEMs	448,062,975			
Intraoffice Local Actual Min	224,031,487		**Dedicated Transport MOU**	
Interoffice Local Actual Min	425,129,025	per end	Local, w/o OS	202,379,094
Intrastate Toll Actual Min	186,443,000		IntraLATA Toll	37,170,921
Interstate Toll Actual Min	184,077,000		InterLATA Toll	296,178,158
	1,019,680,513			535,728,174
Tandem Switch MOU			Dedicated Trunk-SW	4,445
Local	4,130,186			
IntraLATA Toll	9,292,730			
InterLATA Toll	55,518,540			
	68,941,455			

September 12, 2005
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Account	USOA Category	Economic Lives	Net Salvage Percent	Adjusted Projection Lives (years)	Investment	
2112	Motor Vehicles	[redacted]				
2115	Garage Work Equipment					
2116	Other Work Equipment					
2121	Buildings					
2122	Furniture					
2123.1	Office Support Equipment					
2123.2	Company Comm Equipment					
2124	Computers					
2212	Digital Switching					
2220	Operator Systems					
2232.2	Digital Circuit Equipment					
2351	Public Telephone					
	NID, SAI				*Calculated*	
2411	Poles					
2421-m	Aerial Cable - Metallic				$ 12,117,831	$ 739,239
2421-nm	Aerial Cable - Non-Metallic				$ 12,300,538	$ 811,711
2422-m	Underground - Metallic				$ 211,736	$ 12,704
2422-nm	Underground - Non-Metallic				$ 5,905,768	$ 348,423
2423-m	Buried - Metallic				$ 36,822,082	$ 2,125,115
2423-nm	Buried - Non-Metallic				$ 25,854,839	$ 1,344,251
2426-m	Intrabuilding - Metallic					
2426-nm	Intrabuilding - Non-Metallic					
2441	Conduit Systems					
Average Metallic Cable (calculated)				17.08	$ 49,151,648	$ 2,877,058
Average Metallic Cable (calculated)				17.59	$ 44,061,146	$ 2,504,384

fdr underground	fdr buried
50%	40%
50%	40%
40%	40%
33%	40%
33%	40%
33%	40%
33%	40%
33%	40%
33%	40%

TRANSFORMED REGULATED

1995 COMPANY NAME: ICO

		OTHER TAXES & UNCOLLECTIBLES CALCULATION	EXPENSES	NET REVENUES
	7230	OPERATING STATE & LOCAL INCOME TAX-NET	482	
	7240	OPERATING OTHER TAXES	2,038	
	5300	UNCOLLECTIBLE REVENUES		772
	530	NET REVENUES		48,919
		GROSS REVENUES (5300 + 530)		49,691
		UNCLL/GROSS REV		0.015532
	(5300-4040(p..r))/(5081+52	UNCLL RETAIL RATE		2.27%
	(4040(p))/(5082..5084)	UNCLL WHOLESALE RATE		0.43%

EXP	INV	PLANT SPECIFIC OPERATIONS EXPENSES	A. EXPENSES	B. INVESTMENTS	C. EXP/INV (A/B)
		TPIS GENERAL SUPPORT			
	2111	2111 LAND		667	0.000000
	2121	2121 BUILDINGS		9,708	0
6121		TOTAL LAND & BUILDINGS	1,071	10,375	0.103180
6112	2112	2112 MOTOR VEHICLES	58	1,680	0.03475
6113	2113	2113 AIRCRAFT	23	74	0.31246
6114	2114	2114 SPECIAL PURPOSE VEHICLES	0	1	0.01425
6115	2115	2115 GARAGE WORK EQUIPMENT	2	48	0.03533
6116	2116	2116 OTHER WORK EQUIPMENT	15	1,309	0.01131
6122	2122	2122 FURNITURE	78	639	0.12243
6123	2123	2123 OFFICE EQUIPMENT	166	1,633	0.10150
6124	2124	2124 GENERAL PRUPOSE COMPUTERS	1,603	2,512	0.63809
6120	2110	2110 TOTAL LAND & SUPPORT ASSETS	2,917	18,272	0.15965
		TPIS - CENTRAL OFFICE SWITCHING			
6211	2211	2211 ANALOG ELECT SWITCH	48	1,066	0.045322
6212	2212	2212 DIGITAL ELECTRONIC SWITCHING	1,818	31,953	0.056899
6220	2220	2220 OPERATOR SYSTEMS	33	485	0.067518
6210	2210	22102210221022102210 CENTRAL OFFICE SWITCH	1,908	33,516	0.056941
		TPIS - CENTRAL OFFICE TRANSMISSION			
6232	2232	2232 CIRCUIT EQUIPMENT	358	22,014	0.016263483
6230	2230	2230 TRANSMISSION	383	23,025	0.01663194
		TPIS - INFORMATION ORIG/TERM			
6311	2311	2311 STATION APPARATUS	6	15	0.382353
	2321	2321 CUSTOMER PREMISES WIRING	0	0	#DIV/0!
6341	2341	2341 LARGE PRIVATE BRANCH EXCHANGE	0	0	4.500000
6351	2351	2351 PUBLIC TEL TERMINAL EQUIPMENT	131	699	0.188118
6362	2362	2362 OTHER TERMINAL EQUIPMENT	212	1,200	0.176350
6310	2310	2310 TOTAL INFORMATION ORIG/TERM	349	1,914	0.182378

		TPIS - CABLE & WIRE FACILITIES				
6411	2411	2411	POLES	157	3,796	0.041273
6421	2421	2421	AERIAL CABLE	1,125	17,890	0.062887
6422	2422	2422	UNDERGROUND CABLE	223	11,393	0.019603
6423	2423	2423	BURIED CABLE	1,231	31,657	0.038878
6441	2441	2441	CONDUIT SYSTEMS	24	6,461	0.003679
6410	2410	2410	TOTAL CABLE & WIRE FACILITIES	2,795	71,952	0.038842
	240	240	TOTAL TPIS(BEFORE AMORTIZABLE ASSETS) (2110+2210+2220+2230+2310+2410)	5,554	149,783	0.037083
		PLANT NON-SPECIFIC OPERATIONS EXPENSES		A. EXPENSES	B. TPIS INVESTMENT	C. EXP/INV (A/B)
6512	240	6512	PROVISIONING EXPENSES	45	149,783	0.000300
6531	240	6531	POWER EXPENSES	243	149,783	0.001623
6532	240	6532	NETWORK ADMINISTRATION	614	149,783	0.004102
6533	240	6533	TESTING	637	149,783	0.004252
6534	240	6534	PLANT OPERATIONS ADMINISTRATION	957	149,783	0.006391
6535	240	6535	ENGINEERING	505	149,783	0.003373
6540	240	6540	ACCESS EXPENSE	835	149,783	0.005573799
6530	240	6530	TOTAL NETWORK OPERATIONS EXPENSES	2,957	149,783	0.019740601
6561	240	65616561656165616561	DEPRECIATION -TPISDEPRECIATION -TPIS	10,436 10,436	149,783 149,783 149,783	0.069677525 0.069677525
		NETWORK SUPPORT FACTOR CALCULATION		A. EXPENSES	B. CABLE & WIRE INV	C. EXP/INV (A/B)
6112		2112	MOTOR VEHICLES	58		
6113		2113	AIRCRAFT	23		
6114		2114	SPECIAL PURPOSE VEHICLES	0		
6115		2115	GARAGE WORK EQUIPMENT	2		
6116		2116	OTHER WORK EQUIPMENT	15		
	2410		TOTAL NETWORK SUPPORT (EXCL 2113)	75	71,952	0.001041087
		CUSTOMER OPERATIONS EXPENSES		A. EXPENSES	B. NET REVENUES	C. EXP/NET REV (A/B)
6611		6611	PRODUCT MANAGEMENT	427		CALC
6612		6612	SALES	785		CALC
6613		6613	PRODUCT ADVERTISING	283		CALC
6610		6610	TOTAL MARKETING EXPENSES	1,495		CALC
6621		6621	CALL COMPLETION SERVICE	336		CALC
6622		6622	NUMBER SERVICES	816		CALC
6623		6623	CUSTOMER SERVICES	2,686		CALC
6620		6620	TOTAL SERVICES EXPENSES	3,839		CALC
		700	TOTAL CUSTOMER OPERATIONS EXPENSE (6610 + 6620)	5,334		CALC
		CORPORATE OPERATIONS EXPENSES		A. EXPENSES	B. REVENUES	C. EXP/REV (A/B)

6711		6711	EXECUTIVE	202	CALC
6712		6712	PLANNING	99	CALC
6710		6710	TOTAL EXECUTIVE & PLANNING	301	CALC
6721		6721	ACCOUNTING & FINANCE	608	CALC
6722		6722	EXTERNAL RELATIONS	368	CALC
6723		6723	HUMAN RESOURCES	438	CALC
6724		6724	INFORMATION MANAGEMENT	1,676	CALC
6725		6725	LEGAL	140	CALC
6726		6726	PROCUREMENT	77	CALC
6727		6727	RESEARCH & DEVELOPMENT	98	CALC
6728		6728	OTHER GENERAL & ADMINISTRATIVE	1,421	CALC
6720		6720	TOTAL GENERAL & ADMINISTRATIVE	4,827	CALC
		710	TOTAL CORPORATE OPERATIONS EXPENSE (6710 + 6720 + 6790)	6,347	CALC
		720	TOTAL OPERATING EXPENSES		CALC
			DEM - LOCAL	873,193	
			DEM - INTRASTATE	186,444	
			DEM - INTERSTATE	184,077	
			MESSAGES - INTRALATA	11,846	
			MESSAGES - INTERLATA - interstate	25,345	
			MESSAGES - INTERLATA - intrastate	11920.95193	
4308 (EC)			LOCAL CALL ATTEMPTS	197,857	
			LINES - BUSINESS	19,212	
			RESIDENTIAL	52,068	
			PUBLIC	602	
			SPECIAL	4,764	
			TOTAL	76,744	
		5081	END USER		3,256
		5082	SWITCHED ACCESS		7,290
		5083	SPECIAL ACCESS		1,342
			TOTAL INTER ACCESS		11,888
		5084	END USER		
		5084	SWITCHED ACCESS		
		5084	SPECIAL ACCESS		
			STATE ACCESS		6,124
			TOTAL ACCESS REVENUES		18,012
			LD MESSAGE REVENUE		
		5100	INTERSTATE MESSAGE		
		5100	INTRASTATE MESSAGE		

5100	INTERSTATE CALLING PLAN	
5100	INTRASTATE CALLING PLAN	
	LD MSG REV (CLASS A)	5,155
	UNIDIRECTIONAL LD	
5110	INTERSTATE	
	INTRASTATE	
	TOTAL	188
5120	LD PRIVATE NETWORK	427
	OTHER LD	
5160	INTERSTATE	
	INTRASTATE	
	TOTAL	67
	TOTAL LD NETWORK REVENUE	
	INTERSTATE	
	INTRASTATE	
	TOTAL	5,838
	BASIC LOCAL SERVICE	
5001	BASIC AREA	15,852
5002	OPTIONAL EXTEND AREA	486
5003	CELLAR MOBIL	374
5004	OTHER MOBIL SVC	30
	TOTAL BASIC SVC	16,743
	PUBLIC TELEPHONE REVENUE	
5010	LOCAL PUBLIC MSG	
	UNIVERSAL	
	PB EXCHANGE IX CARRIER	
	CC COINLESS	
	PUBLIC EXH	
	SEMI-PUBLIC	
	OTHER PUBLIC PHONE REV	
	TOTAL PUBLIC PHONE REVENUE	465
5040	LOCAL PRIVATE LINE	552
	CUSTOMER PREMISE	
5050	STATION APP	
	CUSTOMER PREMISE WIRING	

		TOTAL CUSTOMER PREMISES				40
		OTHER LOCAL EXCHANGE				
	5060	CO FEATURES				
		INFO TRANSPORT				
		DIRECTORY ASSIST				
		INTERCEPT SRVC				
		OTHER LOC EXCH				
		TOTAL OTHER				3,899
		TOTAL LOCAL NETWORK SRVC REVENUE				
		INTERSTATE				
		INTRASTATE				21699.08624
		TOTAL REVENUE				45549.3964
CAPITAL STRUCTURE PARAMETERS						
		DEBT/EQUITY RATIODEBT/EQUITY RATIODEBT/EQUITY RATIODEBT/EQUITY RATIODEBT/EQUITY RATIODEBT/EQUITY RATIO				
		COST OF DEBT				
		COST OF EQUITY				
			BALANCE SHEET 43-02,B-1 AVG=(ab+af)/2 A -	ACCRUEL 43-02,B-5 (col 2C) B -		DEPR LIFE (ASSUMING STRAIGHT LIFE) C = (A/C) -
		ECONOMIC LIFE				
(2422,21,22,23,41)		FEEDER				
(2422,21,22,23,41)		DISTRIBUTION				
	2121	BUILDINGS				
	2232	DLC ELECTRONIC EQUIPMENT				
	2212	EO SWITCHING				
	2212	TANDEM SWITCHING				
	2220	OS POSITIONS				
	2220	OS TANDEM				
	2232	TRANSMISSION SYSTEMS				
	2351	PUBLIC TELEPHONE EQUIPMENT				
2122,2124		FURNITURE + GP COMPUTERS				
DATA SOURCEDATA SOURCEDATA SOURCEDATA SOURCE			sum checksum checksum checksum checksum checksum checksum check			
ARMIS 4303		Jan 1996 to Dec 1996		28215	495	
ARMIS 4304		GEORGIA		9007	9010	
ARMIS 4308			0 (EJ)	(EJ)		
DEM				0		
=		=	=	=	=	
UNCOLL RATE:		BA Lcl Svc	4303,Ln 520			21699.61457
		LD Ntwk Svs Rev	4303,Ln 525			5884.242756
		End User	4303,Ln 5081			3256.256704

		Sw Acc	4303,Ln 5082	7290.465656
		Spcl Acc	4303,Ln 5083	1341.628906
		St Acc	4303,Ln 5084	6123.865637
		Uncoll Rev	4303,Ln 5300	771.7728115
		Tot Acc	4304,Ln4040 (P)	63.97185331
		B&C	4304,Ln4040 (Q)	6.283126222
		IX	4304,Ln4040 (R)	0.227130693
		Ln4040 (P+Q+R)	Calc (P+Q+R)	70.48211022
	Uncoll -Acc	5300-(4040p..r)	1a	701.2907012
	End User+ Revs	5081+520+525	1b	30840.11403
	Uncoll Retail Rate		1c=(a/b)	0.022739563
	Uncoll Wholesale rate	4040p/(5082..5084)	2a	0.004335323

Actuals for 1996 ($000s)

	Investments	Expenses	Calculated Factor	
Plant-Specific Operations Expenses				
TPIS - General Support				
2111 Land	$ 667	$ -	-	
2112 Motor Vehicles	$ 1,680	$ 58	0.0348	
2113 Aircraft	$ 74	$ 23	0.3125	
2114 Special Purpose Vehicles	$ 1	$ 0	0.0142	
2115 Garage Work Equipment	$ 48	$ 2	0.0353	
2116 Other Work Equipment	$ 1,309	$ 15	0.0113	
2121 Buildings	$ 9,708	$ 1,071	0.1103	Land & Bldg Exp Applied to Bldgs
2122 Furniture	$ 639	$ 78	0.1224	
2123 Office Equipment	$ 1,633	$ 166	0.1015	
2124 General Purpose Computers	$ 2,512	$ 1,603	0.6381	
2110 Total Land & Support Assets	$ 18,272	$ 3,015	0.1650	
TPIS - Central Office Switching				
2211 Analog Electronic Switching	$ 1,066	$ 48	0.0453	
2212 Digital Electronic Switching	$ 31,953	$ 1,818	0.0569	2.69% NET CO Switch Factor
2210 Total Central Office Switching	$ 33,020	$ 1,866	0.0565	
2220 Operator Systems	$ 485	$ 33	0.0675	
TPIS - Central Office Transmission				
2231 Satellite & Earth Station Facilities				
2231 Other Radio Facilities				
2231 Radio Systems				
2232 Circuit Equipment	$ 22,014	$ 358	0.0163	1.53% alternative factor
2230 Total Central Office Transmission	$ 22,014	$ 358	0.0163	
TPIS - Information Orig/Term				
2311 Station Apparatus	$ 15	$ 6	0.3824	
2321 Customer Premises Wiring	$ -	$ -	0.0000	
2341 Large Private Branch Exchange	$ 0	$ 0	4.5000	
2351 Public Telephone Terminal Equipment	$ 699	$ 131	0.1881	
2362 Other Terminal Equipment	$ 1,200	$ 212	0.1763	
2310 Total Information Orig/Term	$ 1,914	$ 349	0.1824	
TPIS - Cable & Wire Facilities				
2411 Poles	$ 3,796	$ 157	0.0413	
2421 Aerial Cable	$ 17,890	$ 1,125	0.0629	
2422 Underground Cable	$ 11,393	$ 223	0.0196	
2423 Buried Cable	$ 31,657	$ 1,231	0.0389	
2424 Submarine Cable			0.0000	
2425 Deep Sea Cable			0.0000	
2426 Intrabuilding Network Cable			0.0000	
2431 Aerial Wire			0.0000	
2441 Conduit Systems	$ 6,461	$ 24	0.0037	
2410 Total Cable & Wire Facilities	$ 71,198	$ 2,760	0.0388	

240	Total TPIS (before amortizable assets)	$ 128,631	$ 8,381	0.0652	

Plant Non-Specific Operations Expenses

		Expenses	Investment	Factor	
6512	Provisioning Expenses	$ 45	$ 128,631	0.0003	
6531	Power Expenses	$ 243	$ 128,631	0.0019	8.10% all
6532	Network Administration	$ 614	$ 128,631	0.0048	20.47% switching, interoffice
6533	Testing	$ 637	$ 128,631	0.0050	21.22% all
6534	Plant Operations Administration	$ 957	$ 128,631	0.0074	31.89% all
6535	Engineering	$ 505	$ 128,631	0.0039	16.83% all
6540	Access Expense				
6530	Total Network Operations Expenses (Including Provisioning Expenses)	$ 3,002	$ 128,631	0.0233	

per line network operations	(=total ARMIS 6530/total lines)	
total lines (from net. invest. inputs)		76,744
annual net ops per line		$ 39.11

Network Support Factor Calculation

		Expenses	Cable & Wire Inv	Factor
2112	Motor Vehicles	$ 58		
2113	Aircraft	$ 23		
2114	Special Purpose Vehicles	$ 0		
2115	Garage Work Equipment	$ 2		
2116	Other Work Equipment	$ 15		
	Aircraft & Special Purpose Vehicles	$ 75	$ 71,198	0.0011

Customer Operations Expenses

		Expenses		Net Revenues	Factor	
6611	Product Management *	$ 427	$ 0.4638	$ 25,671	0.01664	
6612	Sales *	$ 785	$ 0.8522	$ 25,671	0.03057	
6613	Product Advertising	$ 283		$ 25,671	0.01104	
6610	Total Marketing Expenses	$ 1,495			0.05824	
6621	Call Completion Service	$ 336		$ 25,671	0.01310	
6622	Number Services	$ 816	$ 0.8863	$ 25,671	0.03179	
6623	Customer Services	$ 2,686	$ 2.9168	$ 25,671	0.10464	
6620	Total Services Expenses	$ 3,839	$ 4.23		0.14954	
	Billing/bill inquiry (per line/month)	$ 1.22				
	Service order processing fraction of 6623	-				
	Directory listing (per line/month)	$ -				
700	Total Customer Operations Expenses	$ 5,334		$ 25,671	0.20778	24.42%

Corporate Operations Expenses

		Expenses	Revenues	Factor
6711	Executive	$ 202	$ 25,671	0.007873
6712	Planning	$ 99	$ 25,671	0.003852
6710	Total Executive & Planning	$ 301	$ 25,671	0.011725
6721	Accounting & Finance	$ 608	$ 25,671	0.023687

6722	External Relations	$	368	$	25,671	0.014352
6723	Human Resources	$	438	$	25,671	0.017052
6724	Information Management	$	1,676	$	25,671	0.065281
6725	Legal	$	140	$	25,671	0.005470
6726	Procurement	$	77	$	25,671	0.003018
6727	Research & Development	$	98	$	25,671	0.003803
6728	Other General & Administrative	$	1,421	$	25,671	0.055362
6720	Total General & Administrative	$	4,827	$	25,671	0.188024
710	Total Corporate Operations Expense	$	5,128	$	25,671	[redacted]
720	Total Operating Expenses	$	21,845			
	note: does not include dep/amort					

23.47%

47.89% Total Operations General Support Allocator
0.455545869 "Office Worker" General Support Alllocator

Misc Expenses Calculation

	2122 Furniture	2123 Ofc Equpt	2124 GP Comptr	2112 Motor Vehicles	2121 Buildings	2115 Grg Wk Eq	2116 Other Wk Eq
Investment	$ 639	$ 1,633	$ 2,512	$ 1,680	$ 4,854	$ 48	$ 1,309
Investment/TPIS	0.00497	0.01270	0.01953	0.01306	0.03774	0.00037	0.01018
Expense	$ 78	$ 166	$ 1,603	$ 58	$ 535	$ 2	$ 15
Expense Factor	0.12243	0.10150	0.63809	0.03475	0.11027	0.03533	0.01131
Model TPIS	$ 227,791	$ 227,791	$ 227,791	$ 227,791	# $ 227,791	$ 227,791	$ 227,791
Calculated Investment	$ 1,132	$ 2,892	$ 4,448	$ 2,975	$ 8,596	$ 85	$ 2,318
Calculated Expense	$ 139	$ 294	$ 2,838	$ 103	$ 948	$ 3	$ 26

Subtotal ($s)	$	1,921,518
Total Misc Expense	$	1,921,518

Other Taxes & Uncollectibles Calculation

		Expenses		Net Revenues	Factor
7230	Operating State & Local Income Tax	$ 482	$	(2,481)	0.0000
7240	Operating Other Taxes	$ 2,038	$	(2,481)	[redacted]
5300	Uncollectible Revenues	$ 772	$	25,671	0.0301
	retail				0.0227
	wholesale				0.0043

Ratio of Net Plant to TPIS

TPIS	$	128,631
Net Plant	$	128,631
Ratio		100.00%
Model Investment	$	184,627
Model % of Net Plant		144%
Model % of TPIS		144%

Actual 1996 Revenue

			% of total
Interstate Access			
5081 End User	$	3,256	8.26%
5082 Switched Access	$	7,290	18.49%
5083 Special Access	$	1,342	3.40%
Total Inter Access	$	11,888	30.15%
State Access Revenue			
5084 End User	$	-	0.00%
5084 Switched Access	$	-	0.00%
5084 Special Access	$	-	0.00%
Total State Access	$	-	0.00%
Total Access Revenue	$	11,888	30.15%
Long Distance Network Revenue			
5100 Interstate Message	$	-	0.00%
5100 Intrastate Message	$	-	0.00%
5100 Interstate Calling Plan	$	-	0.00%
5100 Intrastate Calling Plan	$	-	0.00%
Total LD Msg Revenue	$	5,155	13.08%
Unidirectional LD Revenue			
5110 Interstate	$	-	0.00%
Intrastate	$	-	0.00%
Total	$	188	0.48%
LD Private Network Revenue			
5120 Interstate	$	-	0.00%
Intrastate	$	-	0.00%
Total	$	427	1.08%
Other Long Distance Revenue			
5160 Interstate	$	-	0.00%
Intrastate	$	-	0.00%
Total	$	67	0.17%
Total Long Distance Network Rev			
Interstate	$	-	0.00%
Intrastate	$	-	0.00%
Total	$	5,838	14.81%

Basic Local Service			
5001 Basic Area	$	15,852	40.21%
5002 Optional Extended Area	$	486	1.23%
5003 Cellular Mobile	$	374	0.95%
5004 Other Mobile Svcs	$	30	0.08%
Total Basic Local Service	$	16,743	42.47%
Public Telephone Revenue			
5010 Local Public Msgs	$	-	0.00%
Universal Public Phone	$	-	0.00%
Public Exchange - IX Carrier	$	-	0.00%
Credit Card Coinless	$	-	0.00%
Public Exchange - CPE	$	-	0.00%
Semi-Public Msgs	$	-	0.00%
Other Public Phone Revenue	$	-	0.00%
Total Public Phone Revenue	$	465	1.18%
Local Private Line Revenue			
5040 Interstate	$	-	0.00%
Intrastate	$	-	0.00%
Total Private Line	$	552	1.40%
Customer Premises Revenue			
5050 Station Apparatus	$	-	0.00%
Customer Premises Wiring	$	-	0.00%
Total Customer Premises	$	40	0.10%
Other Local Exchange Revenue			
5060 Central Office Features	$	-	0.00%
Information Transport	$	-	0.00%
Directory Assistance	$	-	0.00%
Intercept Services	$	-	0.00%
Other Loc Exchg	$	-	0.00%
Total Other	$	3,899	9.89%
Total Local Network Service Revenue			
Interstate	$	-	0.00%
Intrastate	$	21,699	55.04%
Total Revenue	$	39,426	100.00%

HAI Model Release 5.0a

Expense Module Release 5.0a

NOTE: This sheet diplays all user adjustable inputs which vary from HM 5.0a default settings

Workfile Name: C:\HM50a\WORKFILES\HMWKFL2103363.XLS
Distribution Module Name: C:\HM50a\MODULES\R50a_distribution.xls
Feeder Module Name: C:\HM50a\MODULES\R50a_feeder.xls
Switching Module Name: C:\HM50a\MODULES\R50a_switching_io.xls
Expense Module Name: C:\HM50a\MODULES\R50a_expense_wirecenter.xls

Module/Table	Scenario Input	Scenario Value	Default Value
Distribution	Aerial Drop Placement (total) - 0	37.5	23.33
Distribution	Aerial Drop Placement (total) - 5	37.5	23.33
Distribution	Aerial Drop Placement (total) - 100	25	17.5
Distribution	Aerial Drop Placement (total) - 200	25	17.5
Distribution	Aerial Drop Placement (total) - 650	12.5	11.67
Distribution	Aerial Drop Placement (total) - 850	12.5	11.67
Distribution	Aerial Drop Placement (total) - 2550	12.5	11.67
Distribution	Aerial Drop Placement (total) - 5000	12.5	11.67
Distribution	Aerial Drop Placement (total) - 10000	12.5	11.67
Distribution	Buried Drop Placement (total) - 0	0.8	0.6
Distribution	Buried Drop Placement (total) - 5	0.8	0.6
Distribution	Buried Drop Placement (total) - 100	0.8	0.6
Distribution	Buried Drop Placement (total) - 200	0.8	0.6
Distribution	Buried Drop Placement (total) - 650	0.8	0.6
Distribution	Buried Drop Placement (total) - 850	0.8	0.6
Distribution	Buried Drop Placement (total) - 2550	0.8	0.75
Distribution	Buried Drop Placement (total) - 5000	0.8	1.5
Distribution	Buried Drop Placement (total) - 10000	0.8	5
Distribution	Pole Investment	207.3	201
Distribution	Pole Labor	381.5	216
Distribution	Conduit Investment per foot	3.4	0.6
Distribution	Residential NID case, no protector	17.5	10
Distribution	Residential NID basic labor	22.5	15
Distribution	Residential Protection Block, per pair	4.5	4
Distribution	Business NID case, no protector	28.2	25
Distribution	Business NID basic labor	22.5	15
Distribution	Business Protection Block, per pair	4.5	4
Distribution	Drop cable investment per foot buried	0.2	0.14
Distribution	Drop cable investment per foot aerial	0.12	0.095
Distribution	Low Density DLC Basic Common Eqpt Invest + initial lines	18020	16000
Distribution	Distribution Cable Investment per foot 1	24.5	20
Distribution	Distribution Cable Investment per foot 2	19.05	16
Distribution	Distribution Cable Investment per foot 3	13.15	12

NOTE: This sheet diplays all user adjustable inputs which vary from HM 5.0a default settings

Workfile Name: C:\HM50a\WORKFILES\HMWKFL2103363.XLS
Distribution Module Name: C:\HM50a\MODULES\R50a_distribution.xls
Feeder Module Name: C:\HM50a\MODULES\R50a_feeder.xls
Switching Module Name: C:\HM50a\MODULES\R50a_switching_io.xls
Expense Module Name: C:\HM50a\MODULES\R50a_expense_wirecenter.xls

Module/Table	Scenario Input	Scenario Value	Default Value
Distribution	Distribution Cable Investment per foot 4	9.95	10
Distribution	Distribution Cable Investment per foot 5	7.1	7.75
Distribution	Distribution Cable Investment per foot 6	5.45	6
Distribution	Distribution Cable Investment per foot 7	3.85	4.25
Distribution	Distribution Cable Investment per foot 8	2.45	2.5
Distribution	Distribution Cable Investment per foot 9	1.76	1.63
Distribution	Distribution Cable Investment per foot 10	1.43	1.19
Distribution	Distribution Cable Investment per foot 11	1.27	0.76
Distribution	Distribution Cable Investment per foot 12	1.19	0.63
Feeder	Fiber Feeder Investment per foot - 216	11.6	13.1
Feeder	Fiber Feeder Investment per foot - 144	10	9.5
Feeder	Fiber Feeder Investment per foot - 96	7.95	7.1
Feeder	Fiber Feeder Investment per foot - 72	6.65	5.9
Feeder	Fiber Feeder Investment per foot - 60	6.05	5.3
Feeder	Fiber Feeder Investment per foot - 48	5.6	4.7
Feeder	Fiber Feeder Investment per foot - 36	4.9	4.1
Feeder	Fiber Feeder Investment per foot - 24	4.2	3.5
Feeder	Fiber Feeder Investment per foot - 18	3.95	3.2
Feeder	Fiber Feeder Investment per foot - 12	3.55	2.9
Feeder	Copper Feeder Investment per foot - 4200	34.25	29
Feeder	Copper Feeder Investment per foot - 3600	31.25	26
Feeder	Copper Feeder Investment per foot - 3000	31.4	23
Feeder	Copper Feeder Investment per foot - 2400	24.5	20
Feeder	Copper Feeder Investment per foot - 1800	19.05	16
Feeder	Copper Feeder Investment per foot - 1200	13.15	12
Feeder	Copper Feeder Investment per foot - 900	9.95	10
Feeder	Copper Feeder Investment per foot - 600	7.1	7.75
Feeder	Copper Feeder Investment per foot - 400	5.45	6
Feeder	Copper Feeder Investment per foot - 200	3.85	4.25
Feeder	Copper Feeder Investment per foot - 100	2.45	2.5
Feeder	Pole Materials	207.3	201
Feeder	Pole Labor	381.5	216
Feeder	Conduit Material Investment per foot	3.4	0.6

NOTE: This sheet diplays all user adjustable inputs which vary from HM 5.0a default settings

Workfile Name: C:\HM50a\WORKFILES\HMWKFL2103363.XLS
Distribution Module Name: C:\HM50a\MODULES\R50a_distribution.xls
Feeder Module Name: C:\HM50a\MODULES\R50a_feeder.xls
Switching Module Name: C:\HM50a\MODULES\R50a_switching_io.xls
Expense Module Name: C:\HM50a\MODULES\R50a_expense_wirecenter.xls

Module/Table	Scenario Input	Scenario Value	Default Value
Switching	Constant EO Switching Investment Term, BOC and large ICO	254.87	242.73
Expense	Cost of Debt	[redacted]	0.077
Expense	Debt Fraction		0.45
Expense	Cost of Equity		0.119
Expense	Corporate Overhead Factor		0.104
Expense	Other Taxes Factor		0.05
Expense	Motor Vehicles - Economic Life		8.24
Expense	Buildings - Economic Life		46.93
Expense	Digital Electronic Switching - Economic Life		16.17
Expense	Digital Circuit Equipment - Economic Life		10.24
Expense	Poles - Economic Life		30.25
Expense	Aerial Cable - metallic - Economic Life		20.61
Expense	Aerial Cable - non metallic - Economic Life		26.14
Expense	Underground Cable - metallic - Economic Life		25
Expense	Underground Cable - non metallic - Economic Life		26.45
Expense	Buried - metallic - Economic Life		21.57
Expense	Buried - non metallic - Economic Life		25.91
Expense	Conduit Systems - Economic Life		56.19
Expense	Motor Vehicles - Net Salvage %		0.1121
Expense	Buildings - Net Salvage %		0.0187
Expense	Digital Electronic Switching - Net Salvage %		0.0297
Expense	Digital Circuit Equipment - Net Salvage %		-0.0169
Expense	Poles - Net Salvage %		-0.8998
Expense	Aerial Cable - metallic - Net Salvage %		-0.2303
Expense	Aerial Cable - non metallic - Net Salvage %		-0.1753
Expense	Underground Cable - metallic - Net Salvage %		-0.1826
Expense	Underground Cable - non metallic - Net Salvage %		-0.1458
Expense	Buried - metallic - Net Salvage %		-0.0839
Expense	Buried - non metallic - Net Salvage %		-0.0858
Expense	Conduit Systems - Net Salvage %		-0.1034

Distribution Input	Current Scenario Value	Default Scenario Value
Distribution Cable Fill - 0	0.50	0.50
Distribution Cable Fill - 5	0.55	0.55
Distribution Cable Fill - 100	0.55	0.55
Distribution Cable Fill - 200	0.60	0.60
Distribution Cable Fill - 650	0.65	0.65
Distribution Cable Fill - 850	0.70	0.70
Distribution Cable Fill - 2550	0.75	0.75
Distribution Cable Fill - 5000	0.75	0.75
Distribution Cable Fill - 10000	0.75	0.75
Buried Fraction - 0	0.75	0.75
Buried Fraction - 5	0.75	0.75
Buried Fraction - 100	0.75	0.75
Buried Fraction - 200	0.70	0.70
Buried Fraction - 650	0.70	0.70
Buried Fraction - 850	0.70	0.70
Buried Fraction - 2550	0.65	0.65
Buried Fraction - 5000	0.35	0.35
Buried Fraction - 10000	0.05	0.05
Aerial Cable Fraction - 0	0.25	0.25
Aerial Cable Fraction - 5	0.25	0.25
Aerial Cable Fraction - 100	0.25	0.25
Aerial Cable Fraction - 200	0.30	0.30
Aerial Cable Fraction - 650	0.30	0.30
Aerial Cable Fraction - 850	0.30	0.30
Aerial Cable Fraction - 2550	0.30	0.30
Aerial Cable Fraction - 5000	0.60	0.60
Aerial Cable Fraction - 10000	0.85	0.85
Pole Spacing, feet - 0	250	250
Pole Spacing, feet - 5	250	250
Pole Spacing, feet - 100	200	200
Pole Spacing, feet - 200	200	200
Pole Spacing, feet - 650	175	175
Pole Spacing, feet - 850	175	175
Pole Spacing, feet - 2550	150	150
Pole Spacing, feet - 5000	150	150
Pole Spacing, feet - 10000	150	150
Drop Distance, feet - 0	150	150
Drop Distance, feet - 5	150	150
Drop Distance, feet - 100	100	100
Drop Distance, feet - 200	100	100
Drop Distance, feet - 650	50	50
Drop Distance, feet - 850	50	50
Drop Distance, feet - 2550	50	50
Drop Distance, feet - 5000	50	50
Drop Distance, feet - 10000	50	50
Aerial Drop Placement (total) - 0	37.50	23.33
Aerial Drop Placement (total) - 5	37.50	23.33
Aerial Drop Placement (total) - 100	25.00	17.50
Aerial Drop Placement (total) - 200	25.00	17.50
Aerial Drop Placement (total) - 650	12.50	11.67
Aerial Drop Placement (total) - 850	12.50	11.67
Aerial Drop Placement (total) - 2550	12.50	11.67
Aerial Drop Placement (total) - 5000	12.50	11.67

Feeder Input	Current Scenario Value	Default Scenario Value
Copper Feeder Fill - 0	0.65	0.65
Copper Feeder Fill - 5	0.75	0.75
Copper Feeder Fill - 100	0.80	0.80
Copper Feeder Fill - 200	0.80	0.80
Copper Feeder Fill - 650	0.80	0.80
Copper Feeder Fill - 850	0.80	0.80
Copper Feeder Fill - 2550	0.80	0.80
Copper Feeder Fill - 5000	0.80	0.80
Copper Feeder Fill - 10000	0.80	0.80
Fiber Feeder Strand Fill - 0	1.00	1.00
Fiber Feeder Strand Fill - 5	1.00	1.00
Fiber Feeder Strand Fill - 100	1.00	1.00
Fiber Feeder Strand Fill - 200	1.00	1.00
Fiber Feeder Strand Fill - 650	1.00	1.00
Fiber Feeder Strand Fill - 850	1.00	1.00
Fiber Feeder Strand Fill - 2550	1.00	1.00
Fiber Feeder Strand Fill - 5000	1.00	1.00
Fiber Feeder Strand Fill - 10000	1.00	1.00
Copper Aerial Fraction - 0	0.50	0.50
Copper Aerial Fraction - 5	0.50	0.50
Copper Aerial Fraction - 100	0.50	0.50
Copper Aerial Fraction - 200	0.40	0.40
Copper Aerial Fraction - 650	0.30	0.30
Copper Aerial Fraction - 850	0.20	0.20
Copper Aerial Fraction - 2550	0.15	0.15
Copper Aerial Fraction - 5000	0.10	0.10
Copper Aerial Fraction - 10000	0.05	0.05
Copper Buried Fraction - 0	0.45	0.45
Copper Buried Fraction - 5	0.45	0.45
Copper Buried Fraction - 100	0.45	0.45
Copper Buried Fraction - 200	0.40	0.40
Copper Buried Fraction - 650	0.30	0.30
Copper Buried Fraction - 850	0.20	0.20
Copper Buried Fraction - 2550	0.10	0.10
Copper Buried Fraction - 5000	0.05	0.05
Copper Buried Fraction - 10000	0.05	0.05
Copper Manhole Spacing, feet - 0	800	800
Copper Manhole Spacing, feet - 5	800	800
Copper Manhole Spacing, feet - 100	800	800
Copper Manhole Spacing, feet - 200	800	800
Copper Manhole Spacing, feet - 650	600	600
Copper Manhole Spacing, feet - 850	600	600
Copper Manhole Spacing, feet - 2550	600	600
Copper Manhole Spacing, feet - 5000	400	400
Copper Manhole Spacing, feet - 10000	400	400
Fiber Aerial Fraction - 0	0.35	0.35
Fiber Aerial Fraction - 5	0.35	0.35
Fiber Aerial Fraction - 100	0.35	0.35
Fiber Aerial Fraction - 200	0.30	0.30
Fiber Aerial Fraction - 650	0.30	0.30
Fiber Aerial Fraction - 850	0.20	0.20
Fiber Aerial Fraction - 2550	0.15	0.15
Fiber Aerial Fraction - 5000	0.10	0.10

Distribution Input	Current Scenario Value	Default Scenario Value
Aerial Drop Placement (total) - 10000	12.50	**11.67**
Buried Drop Placement (total) - 0	0.80	**0.60**
Buried Drop Placement (total) - 5	0.80	**0.60**
Buried Drop Placement (total) - 100	0.80	**0.60**
Buried Drop Placement (total) - 200	0.80	**0.60**
Buried Drop Placement (total) - 650	0.80	**0.60**
Buried Drop Placement (total) - 850	0.80	**0.60**
Buried Drop Placement (total) - 2550	0.80	**0.75**
Buried Drop Placement (total) - 5000	0.80	**1.50**
Buried Drop Placement (total) - 10000	0.80	**5.00**
Buried Drop Sharing Fraction - 0	0.50	**0.50**
Buried Drop Sharing Fraction - 5	0.50	**0.50**
Buried Drop Sharing Fraction - 100	0.50	**0.50**
Buried Drop Sharing Fraction - 200	0.50	**0.50**
Buried Drop Sharing Fraction - 650	0.50	**0.50**
Buried Drop Sharing Fraction - 850	0.50	**0.50**
Buried Drop Sharing Fraction - 2550	0.50	**0.50**
Buried Drop Sharing Fraction - 5000	0.50	**0.50**
Buried Drop Sharing Fraction - 10000	0.50	**0.50**
Buried Drop Fraction - 0	0.75	**0.75**
Buried Drop Fraction - 5	0.75	**0.75**
Buried Drop Fraction - 100	0.75	**0.75**
Buried Drop Fraction - 200	0.70	**0.70**
Buried Drop Fraction - 650	0.70	**0.70**
Buried Drop Fraction - 850	0.70	**0.70**
Buried Drop Fraction - 2550	0.70	**0.70**
Buried Drop Fraction - 5000	0.40	**0.40**
Buried Drop Fraction - 10000	0.15	**0.15**
Pole Investment	207.30	**201.00**
Pole Labor	381.50	**216.00**
Buried Cable Jacketing Multiplier	1.04	**1.04**
Conduit Investment per foot	3.40	**0.60**
Spare Tubes per route	1.00	**1.00**
Regional Labor Adjustment Factor (see Labor Inputs)	1.00	**1.00**
Residential NID case, no protector	17.50	**10.00**
Residential NID basic labor	22.50	**15.00**
spare	-	**-**
Residential Protection Block, per pair	4.50	**4.00**
Business NID case, no protector	28.20	**25.00**
Business NID basic labor	22.50	**15.00**
Business Protection Block, per pair	4.50	**4.00**
Average Lines per business location	4.00	**4.00**
Terminal and Splice per line, buried	42.50	**42.50**
Terminal and Splice per line, aerial	32.00	**32.00**
Drop cable investment per foot buried	0.20	**0.14**
Drop cable buried pairs	3.00	**3.00**
Drop cable investment per foot aerial	0.120	**0.095**
Drop cable aerial pairs	2.00	**2.00**
DS-0 fraction	1.00	**1.00**
DS-1 fraction	-	**-**
DS-0 pair equivalent	1.00	**1.00**
DS-1 pair equivalent	2.00	**2.00**

Feeder Input	Current Scenario Value	Default Scenario Value
Fiber Aerial Fraction - 10000	0.05	**0.05**
Fiber Buried Fraction - 0	0.60	**0.60**
Fiber Buried Fraction - 5	0.60	**0.60**
Fiber Buried Fraction - 100	0.60	**0.60**
Fiber Buried Fraction - 200	0.60	**0.60**
Fiber Buried Fraction - 650	0.30	**0.30**
Fiber Buried Fraction - 850	0.20	**0.20**
Fiber Buried Fraction - 2550	0.10	**0.10**
Fiber Buried Fraction - 5000	0.05	**0.05**
Fiber Buried Fraction - 10000	0.05	**0.05**
Fiber Pullbox Spacing, feet - 0	2,000.00	**2,000.00**
Fiber Pullbox Spacing, feet - 5	2,000.00	**2,000.00**
Fiber Pullbox Spacing, feet - 100	2,000.00	**2,000.00**
Fiber Pullbox Spacing, feet - 200	2,000.00	**2,000.00**
Fiber Pullbox Spacing, feet - 650	2,000.00	**2,000.00**
Fiber Pullbox Spacing, feet - 850	2,000.00	**2,000.00**
Fiber Pullbox Spacing, feet - 2550	2,000.00	**2,000.00**
Fiber Pullbox Spacing, feet - 5000	2,000.00	**2,000.00**
Fiber Pullbox Spacing, feet - 10000	2,000.00	**2,000.00**
Fiber Feeder Investment per foot - 216	11.60	**13.10**
Fiber Feeder Investment per foot - 144	10.00	**9.50**
Fiber Feeder Investment per foot - 96	7.95	**7.10**
Fiber Feeder Investment per foot - 72	6.65	**5.90**
Fiber Feeder Investment per foot - 60	6.05	**5.30**
Fiber Feeder Investment per foot - 48	5.60	**4.70**
Fiber Feeder Investment per foot - 36	4.90	**4.10**
Fiber Feeder Investment per foot - 24	4.20	**3.50**
Fiber Feeder Investment per foot - 18	3.95	**3.20**
Fiber Feeder Investment per foot - 12	3.55	**2.90**
Copper Feeder Investment per foot - 4200	34.25	**29.00**
Copper Feeder Investment per foot - 3600	31.25	**26.00**
Copper Feeder Investment per foot - 3000	31.40	**23.00**
Copper Feeder Investment per foot - 2400	24.50	**20.00**
Copper Feeder Investment per foot - 1800	19.05	**16.00**
Copper Feeder Investment per foot - 1200	13.15	**12.00**
Copper Feeder Investment per foot - 900	9.95	**10.00**
Copper Feeder Investment per foot - 600	7.10	**7.75**
Copper Feeder Investment per foot - 400	5.45	**6.00**
Copper Feeder Investment per foot - 200	3.85	**4.25**
Copper Feeder Investment per foot - 100	2.45	**2.50**
Buried Copper Cable Sheath Multiplier	1.04	**1.04**
Buried Fiber Sheath Addition per foot	0.20	**0.20**
Pole Materials	207.30	**201.00**
Pole Labor	381.50	**216.00**
Conduit Material Investment per foot	3.40	**0.60**
Inner Duct Investment per foot	0.30	**0.30**
Spare Tubes per section	1.00	**1.00**
Regional Labor Adjustment Factor (see Labor	1.00	**1.00**
Pole Spacing, feet - 0	250.00	**250.00**
Pole Spacing, feet - 5	250.00	**250.00**
Pole Spacing, feet - 100	200.00	**200.00**
Pole Spacing, feet - 200	200.00	**200.00**

Distribution Input	Current Scenario Value	Default Scenario Value
DS-3 pair equivalent	56.00	**56.00**
Indoor NID case	5.00	**5.00**
Buried fraction available for shift - 0	0.75	**0.75**
Buried fraction available for shift - 5	0.75	**0.75**
Buried fraction available for shift - 100	0.75	**0.75**
Buried fraction available for shift - 200	0.75	**0.75**
Buried fraction available for shift - 650	0.75	**0.75**
Buried fraction available for shift - 850	0.75	**0.75**
Buried fraction available for shift - 2550	0.75	**0.75**
Buried fraction available for shift - 5000	-	-
Buried fraction available for shift - 10000	-	-
Wireless Investment Cap Enabled	FALSE	**FALSE**
Wireless Point to Point Inv cap - distribution, per line	7,500.00	**7,500.00**
Wireless Common inv, broadcast	112,500.00	**112,500.00**
Wireless per line inv, broadcast	500.00	**500.00**
Maximum broadcast lines for common inv	30.00	**30.00**
High Density DLC Site and Power	3,000.00	**3,000.00**
High Density DLC Maximum Lines/Increment	672.00	**672.00**
High Density DLC RT Fill Factor	0.90	**0.90**
High Density DLC Basic Common Eqpt Invest + initial lines	66,000.00	**66,000.00**
High Density DLC POTS Channel Unit Investment	310.00	**310.00**
High Density DLC POTS Lines per CU	4.00	**4.00**
High Density DLC Coin Channel Unit Investment	250.00	**250.00**
High Density DLC Coin Lines per CU	2.00	**2.00**
High Density DLC 303/LD crossover, lines	480.00	**480.00**
High Density DLC Fibers per RT	4.00	**4.00**
High Density DLC Optical Patch Panel	1,000.00	**1,000.00**
High Density DLC Copper Feeder Max Distance, ft	9,000.00	**9,000.00**
High Density DLC Common Eqpt Invest per additional 672 lines	18,500.00	**18,500.00**
High Density DLC Maximum Number of additional line modules/R	2.00	**2.00**
Low Density DLC Site and Power	1,300	**1,300**
Low Density DLC Maximum Lines/Increment	120.00	**120.00**
Low Density DLC RT Fill Factor	0.90	**0.90**
Low Density DLC Basic Common Eqpt Invest + initial lines	18,020.00	**16,000.00**
Low Density DLC POTS Channel Unit Investment	600.00	**600.00**
Low Density DLC POTS Lines per CU	6.00	**6.00**
Low Density DLC Coin Channel Unit Investment	600.00	**600.00**
Low Density DLC Coin Lines per CU	6.00	**6.00**
Low Density DLC Fibers per RT	4.00	**4.00**
Low Density DLC Optical Patch Panel	1,000.00	**1,000.00**
Low Density DLC Common Eqpt Invest per additional 96 lines	9,400.00	**9,400.00**
Low Density DLC Maximum Number of additional line modules/R	1.00	**1.00**
Distribution Cable Size 1	2,400.00	**2,400.00**
Distribution Cable Size 2	1,800.00	**1,800.00**
Distribution Cable Size 3	1,200.00	**1,200.00**
Distribution Cable Size 4	900.00	**900.00**
Distribution Cable Size 5	600.00	**600.00**
Distribution Cable Size 6	400.00	**400.00**
Distribution Cable Size 7	200.00	**200.00**
Distribution Cable Size 8	100.00	**100.00**
Distribution Cable Size 9	50.00	**50.00**
Distribution Cable Size 10	25.00	**25.00**

Feeder Input	Current Scenario Value	Default Scenario Value
Pole Spacing, feet - 650	175.00	**175.00**
Pole Spacing, feet - 850	175.00	**175.00**
Pole Spacing, feet - 2550	150.00	**150.00**
Pole Spacing, feet - 5000	150.00	**150.00**
Pole Spacing, feet - 10000	150.00	**150.00**
Buried fraction available for shift - 0	0.75	**0.75**
Buried fraction available for shift - 5	0.75	**0.75**
Buried fraction available for shift - 100	0.75	**0.75**
Buried fraction available for shift - 200	0.75	**0.75**
Buried fraction available for shift - 650	0.75	**0.75**
Buried fraction available for shift - 850	0.75	**0.75**
Buried fraction available for shift - 2550	0.75	**0.75**
Buried fraction available for shift - 5000	0.75	**0.75**
Buried fraction available for shift - 10000	0.75	**0.75**
Fiber investment/strand - foot	0.1000	**0.10**
Copper investment/pair - foot	0.0075	**0.01**
Copper Manhole Materials - 0	1865	**1,865.00**
Copper Manhole Materials - 5	1865	**1,865.00**
Copper Manhole Materials - 100	1865	**1,865.00**
Copper Manhole Materials - 200	1865	**1,865.00**
Copper Manhole Materials - 650	1865	**1,865.00**
Copper Manhole Materials - 850	1865	**1,865.00**
Copper Manhole Materials - 2550	1865	**1,865.00**
Copper Manhole Materials - 5000	1865	**1,865.00**
Copper Manhole Materials - 10000	1865	**1,865.00**
Copper Manhole Frame and Cover - 0	350.00	**350.00**
Copper Manhole Frame and Cover - 5	350.00	**350.00**
Copper Manhole Frame and Cover - 100	350.00	**350.00**
Copper Manhole Frame and Cover - 200	350.00	**350.00**
Copper Manhole Frame and Cover - 650	350.00	**350.00**
Copper Manhole Frame and Cover - 850	350.00	**350.00**
Copper Manhole Frame and Cover - 2550	350.00	**350.00**
Copper Manhole Frame and Cover - 5000	350.00	**350.00**
Copper Manhole Frame and Cover - 10000	350.00	**350.00**
Copper Manhole Site Delivery - 0	125.00	**125.00**
Copper Manhole Site Delivery - 5	125.00	**125.00**
Copper Manhole Site Delivery - 100	125.00	**125.00**
Copper Manhole Site Delivery - 200	125.00	**125.00**
Copper Manhole Site Delivery - 650	125.00	**125.00**
Copper Manhole Site Delivery - 850	125.00	**125.00**
Copper Manhole Site Delivery - 2550	125.00	**125.00**
Copper Manhole Site Delivery - 5000	125.00	**125.00**
Copper Manhole Site Delivery - 10000	125.00	**125.00**
Copper Manhole Excavate and Backfill - 0	2,800	**2,800**
Copper Manhole Excavate and Backfill - 5	2,800	**2,800**
Copper Manhole Excavate and Backfill - 100	2,800	**2,800**
Copper Manhole Excavate and Backfill - 200	2,800	**2,800**
Copper Manhole Excavate and Backfill - 650	3,200	**3,200**
Copper Manhole Excavate and Backfill - 850	3,500	**3,500**
Copper Manhole Excavate and Backfill - 255C	3,500	**3,500**
Copper Manhole Excavate and Backfill - 500C	5,000	**5,000**
Copper Manhole Excavate and Backfill - 100C	5,000	**5,000**

Distribution Input	Current Scenario Value	Default Scenario Value
Distribution Cable Size 11	12.00	**12.00**
Distribution Cable Size 12	6.00	**6.00**
Distribution Cable Investment per foot 1	24.50	**20.00**
Distribution Cable Investment per foot 2	19.05	**16.00**
Distribution Cable Investment per foot 3	13.15	**12.00**
Distribution Cable Investment per foot 4	9.95	**10.00**
Distribution Cable Investment per foot 5	7.10	**7.75**
Distribution Cable Investment per foot 6	5.45	**6.00**
Distribution Cable Investment per foot 7	3.85	**4.25**
Distribution Cable Investment per foot 8	2.45	**2.50**
Distribution Cable Investment per foot 9	1.76	**1.63**
Distribution Cable Investment per foot 10	1.43	**1.19**
Distribution Cable Investment per foot 11	1.27	**0.76**
Distribution Cable Investment per foot 12	1.19	**0.63**
Distribution Riser Cable Size 1	2,400.00	**2,400.00**
Distribution Riser Cable Size 2	1,800.00	**1,800.00**
Distribution Riser Cable Size 3	1,200.00	**1,200.00**
Distribution Riser Cable Size 4	900.00	**900.00**
Distribution Riser Cable Size 5	600.00	**600.00**
Distribution Riser Cable Size 6	400.00	**400.00**
Distribution Riser Cable Size 7	200.00	**200.00**
Distribution Riser Cable Size 8	100.00	**100.00**
Distribution Riser Cable Size 9	50.00	**50.00**
Distribution Riser Cable Size 10	25.00	**25.00**
Distribution Riser Cable Size 11	12.00	**12.00**
Distribution Riser Cable Size 12	6.00	**6.00**
Distribution Riser Cable Investment per foot 1	25.00	**25.00**
Distribution Riser Cable Investment per foot 2	20.00	**20.00**
Distribution Riser Cable Investment per foot 3	15.00	**15.00**
Distribution Riser Cable Investment per foot 4	12.50	**12.50**
Distribution Riser Cable Investment per foot 5	10.00	**10.00**
Distribution Riser Cable Investment per foot 6	7.50	**7.50**
Distribution Riser Cable Investment per foot 7	5.30	**5.30**
Distribution Riser Cable Investment per foot 8	3.15	**3.15**
Distribution Riser Cable Investment per foot 9	2.05	**2.05**
Distribution Riser Cable Investment per foot 10	1.50	**1.50**
Distribution Riser Cable Investment per foot 11	0.95	**0.95**
Distribution Riser Cable Investment per foot 12	0.80	**0.80**
Distance Multiplier for difficult terrain	1.00	**1.00**
Rock Depth Threshold, Inches	24.00	**24.00**
Hard Rock Placement Multiplier	3.50	**3.50**
Soft Rock Placement Multiplier	2.00	**2.00**
Sidewalk/Street Fraction	0.20	**0.20**
Local RT - Maximum Total Distance	18,000.00	**18,000.00**
SAI Cable Size 1	7,200.00	**7,200.00**
SAI Cable Size 2	5,400.00	**5,400.00**
SAI Cable Size 3	3,600.00	**3,600.00**
SAI Cable Size 4	2,400.00	**2,400.00**
SAI Cable Size 5	1,800	**1,800**
SAI Cable Size 6	1,200	**1,200**
SAI Cable Size 7	900	**900**
SAI Cable Size 8	600	**600**

Feeder Input	Current Scenario Value	Default Scenario Value
Fiber Pullbox Materials - 0	280.00	**280.00**
Fiber Pullbox Materials - 5	280.00	**280.00**
Fiber Pullbox Materials - 100	280.00	**280.00**
Fiber Pullbox Materials - 200	280.00	**280.00**
Fiber Pullbox Materials - 650	280.00	**280.00**
Fiber Pullbox Materials - 850	280.00	**280.00**
Fiber Pullbox Materials - 2550	280.00	**280.00**
Fiber Pullbox Materials - 5000	280.00	**280.00**
Fiber Pullbox Materials - 10000	280.00	**280.00**
Fiber Pullbox Installation - 0	220.00	**220.00**
Fiber Pullbox Installation - 5	220.00	**220.00**
Fiber Pullbox Installation - 100	220.00	**220.00**
Fiber Pullbox Installation - 200	220.00	**220.00**
Fiber Pullbox Installation - 650	220.00	**220.00**
Fiber Pullbox Installation - 850	220.00	**220.00**
Fiber Pullbox Installation - 2550	220.00	**220.00**
Fiber Pullbox Installation - 5000	220.00	**220.00**
Fiber Pullbox Installation - 10000	220.00	**220.00**
Dewatering factor manhole excavation (additi	0.20	**0.20**
Water table depth for dewatering, ft	5.00	**5.00**

Distribution Input	Current Scenario Value	Default Scenario Value
SAI Cable Size 9	400	400
SAI Cable Size 10	200	200
SAI Cable Size 11	100	100
SAI Cable Size 12	50	50
SAI Indoor Investment 1	9,656	9,656
SAI Indoor Investment 2	7,392	7,392
SAI Indoor Investment 3	4,928	4,928
SAI Indoor Investment 4	3,352	3,352
SAI Indoor Investment 5	2,464.00	2,464.00
SAI Indoor Investment 6	1,776.00	1,776.00
SAI Indoor Investment 7	1,232.00	1,232.00
SAI Indoor Investment 8	888.00	888.00
SAI Indoor Investment 9	592.00	592.00
SAI Indoor Investment 10	296.00	296.00
SAI Indoor Investment 11	148.00	148.00
SAI Indoor Investment 12	98.00	98.00
SAI Outdoor Investment 1	10,000.00	10,000.00
SAI Outdoor Investment 2	8,200.00	8,200.00
SAI Outdoor Investment 3	6,000.00	6,000.00
SAI Outdoor Investment 4	4,300.00	4,300.00
SAI Outdoor Investment 5	3,400.00	3,400.00
SAI Outdoor Investment 6	2,400.00	2,400.00
SAI Outdoor Investment 7	1,900.00	1,900.00
SAI Outdoor Investment 8	1,400.00	1,400.00
SAI Outdoor Investment 9	1,000.00	1,000.00
SAI Outdoor Investment 10	600.00	600.00
SAI Outdoor Investment 11	350.00	350.00
SAI Outdoor Investment 12	250.00	250.00
Repeater Investment, installed	527.00	527.00
Integrated COT, installed	420.00	420.00
Remote Multiplexer Common Equip Inv, installed	8,200.00	8,200.00
Channel Unit Investment, per subscriber	125.00	125.00
COT investment per RT, installed	1,170.00	1,170.00
Remote Terminal fill factor	0.90	0.90
Maximum T1s per cable	8.00	8.00
T1 repeater spacing, dB	32.00	32.00
Aerial T1 attenuation, dB/kft	6.30	6.30
Buried T1 attenuation, dB/kft	5.00	5.00
Feeder steering enable	FALSE	FALSE
Main feeder route/air multiplier	1	1
Rectangular cluster switch	FALSE	FALSE

Feeder Input	Current Scenario Value	Default Scenario Value

Switching Input	Current Scenario Value	Default Scenario Value
Constant EO Switching Investment Term, small ICO	416.11	**416.11**
Constant EO Switching Investment Term, BOC and large ICO	254.87	**242.73**
Switch Capacity Real-Time (BHCA) - 1	10,000	**10,000**
Switch Capacity Real-Time (BHCA) - 2	50,000	**50,000**
Switch Capacity Real-Time (BHCA) - 3	200,000	**200,000**
Switch Capacity Real-Time (BHCA) - 4	600,000	**600,000**
Switch Capacity Traffic (BHCCS) - 1	30,000	**30,000**
Switch Capacity Traffic (BHCCS) - 2	150,000	**150,000**
Switch Capacity Traffic (BHCCS) - 3	600,000	**600,000**
Switch Capacity Traffic (BHCCS) - 4	1,800,000	**1,800,000**
Initial Switch Maximum Equipped Line Size	80,000	**80,000**
Switch Port Administrative Fill	0.98	**0.98**
Switch Maximim Processor Occupancy	0.90	**0.90**
Processor Feature Loading Multiplier - normal	1.20	**1.20**
Processor Feature Loading Multiplier - heavy business	2.00	**2.00**
Processor Feature Loading Multiplier - business penetration threshold	0.30	**0.30**
MDF/Protector Investment per line	12.00	**12.00**
Analog Line Circuit Offset for DLC lines, per line	5.00	**5.00**
Switch Installation Multiplier	1.10	**1.10**
Operator Traffic Fraction	0.02	**0.02**
Total Interoffice Traffic Fraction	0.65	**0.65**
Maximum Trunk Occupancy, CCS	27.50	**27.50**
Trunk Port, per end	100.00	**100.00**
Entrance Facility Distance, miles	0.50	**0.50**
Direct-routed Fraction of Local Interoffice	0.98	**0.98**
POPs per Tandem Location	5.00	**5.00**
Tandem-routed Fraction of Total IntraLATA Traffic	0.20	**0.20**
Tandem-routed Fraction of Total InterLATA Traffic	0.20	**0.20**
Local Call Attempts	197,857	**197,857**
Call Completion Factor	0.70	**0.70**
IntraLATA Calls Completed	11,845	**11,845**
InterLATA intrastate Calls Completed	11,920	**11,920**
InterLATA interstate Calls Completed	25,344	**25,344**
Local DEMs, thousands	873,192	**873,192**
Intrastate DEMs, thousands	186,443	**186,443**
Interstate DEMs, thousands	184,077	**184,077**
Local Business/Residence DEMs	1.10	**1.10**
Intrastate Business/Residence DEMs	2.00	**2.00**
Interstate Business/Residence DEMs	3.00	**3.00**
BH Fraction of Daily Usage	0.10	**0.10**
Annual to Daily Usage Reduction Factor	270.00	**270.00**
Residential Holding Time Multiplier	1.00	**1.00**
Business Holding Time Multiplier	1.00	**1.00**
Residential Call Attempts per BH	1.30	**1.30**
Business Call Attempts per BH	3.50	**3.50**
ICO STP Investment, per line (equipment)	5.50	**5.50**
ICO Local Tandem Investment, per line	1.90	**1.90**
ICO OS Tandem Investment, per line	0.80	**0.80**
ICO SCP Investment per line (equipment)	2.50	**2.50**
ICO SCP - STP per line (wirecenter)	0.40	**0.40**
ICO Local Tandem Investment, per line (wirecenter)	2.50	**2.50**
ICO OS Tandem Investment, per line (wirecenter)	1.00	**1.00**
ICO Tandem A Links and C Links per line (wirecenter)	0.30	**0.30**

Expense Input	Current Scenario Value	Default Scenario Value
Cost of Debt	[redacted]	**0.077**
Debt Fraction		**0.450**
Cost of Equity		**0.119**
Average Trunk Utilization	0.300	**0.300**
Tax Rate	0.393	**0.393**
Corporate Overhead Factor	[redacted]	**0.104**
Other Taxes Factor		**0.050**
Billing/Bill Inquiry per line per month	1.220	**1.220**
Directory Listing per line per month	-	**-**
Forward-looking Network Operations Factor	0.500	**0.500**
Alternative CO Switching Factor	0.027	**0.027**
Alternative Circuit Equipment Factor	0.015	**0.015**
EO Traffic Sensitive Fraction	0.700	**0.700**
Monthly LNP cost, per line	0.250	**0.250**
Carrier to Carrier Customer Service, per line per ye	1.69	**1.69**
NID Expense per line per year	1.00	**1.00**
DS-0/DS-1 Terminal Factor	12.4	**12.4**
DS-1/DS-3 Terminal Factor	9.9	**9.9**
Average Lines per Business Location	4	**4**
Distribution Aerial Shring Fraction - 0	0.50	**0.50**
Distribution Aerial Shring Fraction - 5	0.33	**0.33**
Distribution Aerial Shring Fraction - 100	0.25	**0.25**
Distribution Aerial Shring Fraction - 200	0.25	**0.25**
Distribution Aerial Shring Fraction - 650	0.25	**0.25**
Distribution Aerial Shring Fraction - 850	0.25	**0.25**
Distribution Aerial Shring Fraction - 2550	0.25	**0.25**
Distribution Aerial Shring Fraction - 5000	0.25	**0.25**
Distribution Aerial Shring Fraction - 10000	0.25	**0.25**
Distribution Buried Shring Fraction - 0	0.33	**0.33**
Distribution Buried Shring Fraction - 5	0.33	**0.33**
Distribution Buried Shring Fraction - 100	0.33	**0.33**
Distribution Buried Shring Fraction - 200	0.33	**0.33**
Distribution Buried Shring Fraction - 650	0.33	**0.33**
Distribution Buried Shring Fraction - 850	0.33	**0.33**
Distribution Buried Shring Fraction - 2550	0.33	**0.33**
Distribution Buried Shring Fraction - 5000	0.33	**0.33**
Distribution Buried Shring Fraction - 10000	0.33	**0.33**
Distribution Underground Shring Fraction - 0	1.00	**1.00**
Distribution Underground Shring Fraction - 5	0.50	**0.50**
Distribution Underground Shring Fraction - 100	0.50	**0.50**
Distribution Underground Shring Fraction - 200	0.50	**0.50**
Distribution Underground Shring Fraction - 650	0.40	**0.40**
Distribution Underground Shring Fraction - 850	0.33	**0.33**
Distribution Underground Shring Fraction - 2550	0.33	**0.33**
Distribution Underground Shring Fraction - 5000	0.33	**0.33**
Distribution Underground Shring Fraction - 10000	0.33	**0.33**
Feeder Aerial Shring Fraction - 0	0.50	**0.50**
Feeder Aerial Shring Fraction - 5	0.33	**0.33**
Feeder Aerial Shring Fraction - 100	0.25	**0.25**
Feeder Aerial Shring Fraction - 200	0.25	**0.25**
Feeder Aerial Shring Fraction - 650	0.25	**0.25**
Feeder Aerial Shring Fraction - 850	0.25	**0.25**
Feeder Aerial Shring Fraction - 2550	0.25	**0.25**

Switching Input	Current Scenario Value	Default Scenario Value
Real-time Limit, BHCA	750,000	750,000
Port Limit, trunks	100,000	100,000
Common Equipment Investment	1,000,000	1,000,000
Maximum Port Fill	0.90	0.90
Maximum Real-time Occupancy	0.90	0.90
Common Equipment Intercept Factor	0.50	0.50
STP Link Capacity	720	720
STP Maximum Link Fill	0.80	0.80
Maximum STP Investment, per pair	5,000,000	5,000,000
Minimum STP Investment, per pair	1,000,000	1,000,000
Link Termination, both ends	900	900
Signaling Link Bit Rate	56,000	56,000
Link Occupancy	0.40	0.40
C Link Cross Section	24.00	24.00
ISUP Messages per Interoffice BHCA	6.00	6.00
ISUP Message Length, bytes	25.00	25.00
TCAP Messages per transaction	2.00	2.00
TCAP Message length, bytes	100.00	100.00
Fraction of BHCA requiring TCAP	0.10	0.10
SCP Investment/Transaction/Second	20,000	20,000
Operator Investment per position	6,400	6,400
Operator Maximum Utilization, per position, CCS	32	32
Operator Intervention Factor	10	10
Public Telephone Investment, per station	760	760
Lot Size, Multiplier of Switch Room Size	2	2
Tandem/EO Wire Center Common Factor	0.40	0.40
Power Investment 1	5,000	5,000
Power Investment 2	10,000	10,000
Power Investment 3	20,000	20,000
Power Investment 4	50,000	50,000
Power Investment 5	250,000	250,000
Switch Room Size, sq ft 1	500	500
Switch Room Size, sq ft 2	1,000	1,000
Switch Room Size, sq ft 3	2,000	2,000
Switch Room Size, sq ft 4	5,000	5,000
Switch Room Size, sq ft 5	10,000	10,000
Construction Investment, sq ft 1	75.00	75.00
Construction Investment, sq ft 2	85.00	85.00
Construction Investment, sq ft 3	100.00	100.00
Construction Investment, sq ft 4	125.00	125.00
Construction Investment, sq ft 5	150.00	150.00
Land Investment, sq ft 1	5	5
Land Investment, sq ft 2	8	8
Land Investment, sq ft 3	10	10
Land Investment, sq ft 4	15	15
Land Investment, sq ft 5	20	20
OC-48 ADM, installed, 48 DS-3s	50,000	50,000
OC-48 ADM, installed, 12 DS-3s	40,000	40,000
OC-3/DS-1 Terminal Multiplexer, installed, 84 DS-1s	26,000	26,000
Investment per 7 DS-1s	500	500
Number of Fibers	24	24
Pigtrails, per strand	60	60

Expense Input	Current Scenario Value	Default Scenario Value
Feeder Aerial Shring Fraction - 5000	0.25	0.25
Feeder Aerial Shring Fraction - 10000	0.25	0.25
Feeder Underground Shring Fraction - 0	0.50	0.50
Feeder Underground Shring Fraction - 5	0.50	0.50
Feeder Underground Shring Fraction - 100	0.40	0.40
Feeder Underground Shring Fraction - 200	0.33	0.33
Feeder Underground Shring Fraction - 650	0.33	0.33
Feeder Underground Shring Fraction - 850	0.33	0.33
Feeder Underground Shring Fraction - 2550	0.33	0.33
Feeder Underground Shring Fraction - 5000	0.33	0.33
Feeder Underground Shring Fraction - 10000	0.33	0.33
Feeder Buried Shring Fraction - 0	0.40	0.40
Feeder Buried Shring Fraction - 5	0.40	0.40
Feeder Buried Shring Fraction - 100	0.40	0.40
Feeder Buried Shring Fraction - 200	0.40	0.40
Feeder Buried Shring Fraction - 650	0.40	0.40
Feeder Buried Shring Fraction - 850	0.40	0.40
Feeder Buried Shring Fraction - 2550	0.40	0.40
Feeder Buried Shring Fraction - 5000	0.40	0.40
Feeder Buried Shring Fraction - 10000	0.40	0.40
Motor Vehicles - Economic Life	[redacted]	8.24
Garage Work Equipment - Economic Life	[redacted]	12.22
Other Work Equipment - Economic Life	[redacted]	13.04
Buildings - Economic Life	[redacted]	46.93
Furniture - Economic Life	[redacted]	15.92
Office Support Equipment - Economic Life	[redacted]	10.78
Company Comm. Equipment - Economic Life	[redacted]	7.40
General Purpose Computer - Economic Life	[redacted]	6.12
Digital Electronic Switching - Economic Life	[redacted]	16.17
Operator Systems - Economic Life	[redacted]	9.41
Digital Circuit Equipment - Economic Life	[redacted]	10.24
Public Telephone Terminal Equipment - Economic	[redacted]	7.60
Poles - Economic Life	[redacted]	30.25
Aerial Cable - metallic - Economic Life	[redacted]	20.61
Aerial Cable - non metallic - Economic Life	[redacted]	26.14
Underground Cable - metallic - Economic Life	[redacted]	25.00
Underground Cable - non metallic - Economic Life	[redacted]	26.45
Buried - metallic - Economic Life	[redacted]	21.57
Buried - non metallic - Economic Life	[redacted]	25.91
Intrabuilding Cable - metallic - Economic Life	[redacted]	18.18
Intrabuilding Cable - non metallic - Economic Life	[redacted]	26.11
Conduit Systems - Economic Life	[redacted]	56.19
Motor Vehicles - Net Salvage %	[redacted]	0.1121
Garage Work Equipment - Net Salvage %	[redacted]	-0.1071
Other Work Equipment - Net Salvage %	[redacted]	0.0321
Buildings - Net Salvage %	[redacted]	0.0187
Furniture - Net Salvage %	[redacted]	0.0688
Office Support Equipment - Net Salvage %	[redacted]	0.0691
Company Comm. Equipment - Net Salvage %	[redacted]	0.0376
General Purpose Computer - Net Salvage %	[redacted]	0.0373
Digital Electronic Switching - Net Salvage %	[redacted]	0.0297
Operator Systems - Net Salvage %	[redacted]	-0.0082

Switching Input	Current Scenario Value	Default Scenario Value
Optical Distribution Panel	1,000	1,000
EF&I, per hour	55	55
EF&I hours	32	32
Regional Labor Adjustment Factor (see Labor Inputs)	1	1
Channel Bank Investment, per 24 lines	5,000	5,000
Fraction of SA Lines Requiring Multiplexing	-	-
Regenerator, installed	15,000	15,000
Regenerator spacing, miles	40	40
DCS installed, per DS-3	30,000	30,000
Transmission Terminal Fill (DS-0 level)	0.90	0.90
Fiber Investment, fiber cable	3.50	3.50
Fiber, number of strands per ADM	4.00	4.00
Fiber Investment, buried fraction	0.60	0.60
Fiber Investment, buried placement	1.77	1.77
Fiber Investment, buried sheath addition	0.20	0.20
Fiber Investment, conduit	0.60	0.60
Fiber, spare tubes per route	1.00	1.00
Fiber Investment, conduit placement	16.40	16.40
Fiber, pullbox spacing	2,000.00	2,000.00
Fiber Investment, pullbox investsment	500.00	500.00
Fiber, aerial fraction	0.20	0.20
Fiber, pole spacing, feet	150.00	150.00
Fiber Investment, pole material	201.00	201.00
Fiber Investment, pole labor (basic)	216.00	216.00
Fraction Poles and Buried/Underground Placement Common with Feer	0.75	0.75
Fraction of Aerial Structure Assigned to Telephone	0.33	0.33
Fraction of Buried Structure Assigned to Telephone	0.33	0.33
Fraction of Underground Structure Assigned to Telephone	0.33	0.33
Multiplicative EO Switching Investment Term	-14.922	(14.92)
Threshold value for off-ring wire centers, total lines	1	1.00
Remote-host fraction of interoffice traffic -- remote	0.1	0.10
Host-remote fraction of interoffice traffice -- host	0.05	0.05
Maximum nodes per ring	16	16.00
Use host - remote assignments	FALSE	FALSE
Ring transiting traffic factor	0.4	0.40
Intertandem fraction of tandem trunks (additive)	0.1	0.10
Equivalent facility investment, per DS-0	138.08	138.08
Equivalent terminal investment, per DS-0	111.62	111.62
Switch line size - 1	0	-
Switch line size - 2	640	640.00
Switch line size - 3	5000	5,000.00
Switch line size - 4	10000	10,000.00
BOC standalone fixed inv - 1	175000	175,000.00
BOC standalone fixed inv - 2	175000	175,000.00
BOC standalone fixed inv - 3	175000	175,000.00
BOC standalone fixed inv - 4	475000	475,000.00
BOC host fixed inv - 1	183750	183,750.00
BOC host fixed inv - 2	183750	183,750.00
BOC host fixed inv - 3	183750	183,750.00
BOC host fixed inv - 4	498750	498,750.00
BOC remote fixed inv - 1	10000	10,000.00
BOC remote fixed inv - 2	55000	55,000.00

Expense Input	Current Scenario Value	Default Scenario Value
Digital Circuit Equipment - Net Salvage %	[redacted]	-0.0169
Public Telephone Terminal Equipment - Net Salva	[redacted]	0.0797
Poles - Net Salvage %	[redacted]	-0.8998
Aerial Cable - metallic - Net Salvage %	[redacted]	-0.2303
Aerial Cable - non metallic - Net Salvage %	[redacted]	-0.1753
Underground Cable - metallic - Net Salvage %	[redacted]	-0.1826
Underground Cable - non metallic - Net Salvage %	[redacted]	-0.1458
Buried - metallic - Net Salvage %	[redacted]	-0.0839
Buried - non metallic - Net Salvage %	[redacted]	-0.0858
Intrabuilding Cable - metallic - Net Salvage %	[redacted]	-0.1574
Intrabuilding Cable - non metallic - Net Salvage %	[redacted]	-0.1052
Conduit Systems - Net Salvage %	[redacted]	-0.1034
Furniture - Capital Costs - % assigned per line	0.0000	0.0000
Furniture - Expenses - % assigned per line	0.0000	0.0000
Office Equipment - Capital Costs - % assigned per l	0.0000	0.0000
Office Equipment - Expenses - % assigned per line	0.0000	0.0000
General Purpose Computer - Capital Costs - % ass	0.0000	0.0000
General Purpose Computer - Expenses - % assigne	0.0000	0.0000
Motor Vehicles - Capital Costs - % assigned per line	0.0000	0.0000
Motor Vehicles - Expenses - % assigned per line	0.0000	0.0000
Buildings - Capital Costs - % assigned per line	0.0000	0.0000
Buildings - Expenses - % assigned per line	0.0000	0.0000
Garage Work Eqpt. - Capital Costs - % assigned pe	0.0000	0.0000
Garage Work Eqpt. - Expenses - % assigned per lir	0.0000	0.0000
Other Work Eqpt. - Capital Costs - % assigned per	0.0000	0.0000
Other Work Eqpt. - Expenses - % assigned per line	0.0000	0.0000
Network Operations - % assigned per line	0.0000	0.0000
Other Taxes - % assigned per line	0.0000	0.0000
Variable Overhead - % assigned per line	0.0000	0.0000

Switching Input	Current Scenario Value	Default Scenario Value
BOC remote fixed inv - 3	70000	70,000.00
BOC remote fixed inv - 4	225000	225,000.00
BOC standalone per line inv - 1	75	75.00
BOC standalone per line inv - 2	75	75.00
BOC standalone per line inv - 3	75	75.00
BOC standalone per line inv - 4	73	73.00
BOC host per line inv - 1	75	75.00
BOC host per line inv - 2	75	75.00
BOC host per line inv - 3	75	75.00
BOC host per line inv - 4	73	73.00
BOC remote per line inv - 1	85	85.00
BOC remote per line inv - 2	83	83.00
BOC remote per line inv - 3	85	85.00
BOC remote per line inv - 4	70	70.00
ICO standalone fixed inv - 1	300001	300,001.00
ICO standalone fixed inv - 2	300001	300,001.00
ICO standalone fixed inv - 3	300001	300,001.00
ICO standalone fixed inv - 4	814289	814,289.00
ICO host fixed inv - 1	315001	315,001.00
ICO host fixed inv - 2	315001	315,001.00
ICO host fixed inv - 3	315001	315,001.00
ICO host fixed inv - 4	855003	855,003.00
ICO remote fixed inv - 1	17143	17,143.00
ICO remote fixed inv - 2	94286	94,286.00
ICO remote fixed inv - 3	120000	120,000.00
ICO remote fixed inv - 4	385716	385,716.00
ICO standalone per line inv - 1	129	129.00
ICO standalone per line inv - 2	129	129.00
ICO standalone per line inv - 3	129	129.00
ICO standalone per line inv - 4	124	124.00
ICO host per line inv - 1	129	129.00
ICO host per line inv - 2	129	129.00
ICO host per line inv - 3	129	129.00
ICO host per line inv - 4	124	124.00
ICO remote per line inv - 1	146	146.00
ICO remote per line inv - 2	141	141.00
ICO remote per line inv - 3	146	146.00
ICO remote per line inv - 4	120	120.00

Expense Input	Current Scenario Value	Default Scenario Value

Switching Input	Current Scenario Value	Default Scenario Value	Expense Input	Current Scenario Value	Default Scenario Value

Underground Excavation/Restoration	Current Scenario Value	Default Scenario Value
Trench Per Ft - 0	1.90	**1.90**
Trench Per Ft - 5	1.90	**1.90**
Trench Per Ft - 100	1.90	**1.90**
Trench Per Ft - 200	1.90	**1.90**
Trench Per Ft - 650	1.95	**1.95**
Trench Per Ft - 850	2.15	**2.15**
Trench Per Ft - 2550	2.15	**2.15**
Trench Per Ft - 5000	6.00	**6.00**
Trench Per Ft -10000	6.00	**6.00**
Backhoe Trench Fraction - 0	0.45	**0.45**
Backhoe Trench Fraction - 5	0.45	**0.45**
Backhoe Trench Fraction - 100	0.45	**0.45**
Backhoe Trench Fraction - 200	0.45	**0.45**
Backhoe Trench Fraction - 650	0.45	**0.45**
Backhoe Trench Fraction - 850	0.45	**0.45**
Backhoe Trench Fraction - 2550	0.55	**0.55**
Backhoe Trench Fraction - 5000	0.67	**0.67**
Backhoe Trench Fraction -10000	0.72	**0.72**
Backhoe Trench Per Ft - 0	3.00	**3.00**
Backhoe Trench Per Ft - 5	3.00	**3.00**
Backhoe Trench Per Ft - 100	3.00	**3.00**
Backhoe Trench Per Ft - 200	3.00	**3.00**
Backhoe Trench Per Ft - 650	3.00	**3.00**
Backhoe Trench Per Ft - 850	3.00	**3.00**
Backhoe Trench Per Ft - 2550	3.00	**3.00**
Backhoe Trench Per Ft - 5000	20.00	**20.00**
Backhoe Trench Per Ft -10000	30.00	**30.00**
Hand Trench Fraction - 0	0.01	**0.01**
Hand Trench Fraction - 5	0.01	**0.01**
Hand Trench Fraction - 100	0.01	**0.01**
Hand Trench Fraction - 200	0.03	**0.03**
Hand Trench Fraction - 650	0.03	**0.03**
Hand Trench Fraction - 850	0.05	**0.05**
Hand Trench Fraction - 2550	0.10	**0.10**
Hand Trench Fraction - 5000	0.10	**0.10**
Hand Trench Fraction -10000	0.12	**0.12**
Hand Trench Per Ft - 0	5.00	**5.00**
Hand Trench Per Ft - 5	5.00	**5.00**
Hand Trench Per Ft - 100	5.00	**5.00**
Hand Trench Per Ft - 200	5.00	**5.00**
Hand Trench Per Ft - 650	5.00	**5.00**
Hand Trench Per Ft - 850	5.00	**5.00**
Hand Trench Per Ft - 2550	5.00	**5.00**
Hand Trench Per Ft - 5000	10.00	**10.00**
Hand Trench Per Ft -10000	18.00	**18.00**
Cut/Restore Asphalt Fraction - 0	0.55	**0.55**
Cut/Restore Asphalt Fraction - 5	0.55	**0.55**
Cut/Restore Asphalt Fraction - 100	0.55	**0.55**
Cut/Restore Asphalt Fraction - 200	0.65	**0.65**
Cut/Restore Asphalt Fraction - 650	0.70	**0.70**
Cut/Restore Asphalt Fraction - 850	0.75	**0.75**
Cut/Restore Asphalt Fraction - 2550	0.75	**0.75**
Cut/Restore Asphalt Fraction - 5000	0.80	**0.80**

Buried Excavation/Restoration	Current Scenario Value	Default Scenario Value
Plow Fraction - 0	0.60	**0.60**
Plow Fraction - 5	0.60	**0.60**
Plow Fraction - 100	0.60	**0.60**
Plow Fraction - 200	0.50	**0.50**
Plow Fraction - 650	0.35	**0.35**
Plow Fraction - 850	0.20	**0.20**
Plow Fraction - 2550	0.00	**0.00**
Plow Fraction - 5000	0.00	**0.00**
Plow Fraction -10000	0.00	**0.00**
Plow Per Ft - 0	0.80	**0.80**
Plow Per Ft - 5	0.80	**0.80**
Plow Per Ft - 100	0.80	**0.80**
Plow Per Ft - 200	0.80	**0.80**
Plow Per Ft - 650	0.80	**0.80**
Plow Per Ft - 850	1.20	**1.20**
Plow Per Ft - 2550	1.20	**1.20**
Plow Per Ft - 5000	1.20	**1.20**
Plow Per Ft -10000	1.20	**1.20**
Trench Per Ft - 0	1.90	**1.90**
Trench Per Ft - 5	1.90	**1.90**
Trench Per Ft - 100	1.90	**1.90**
Trench Per Ft - 200	1.90	**1.90**
Trench Per Ft - 650	1.95	**1.95**
Trench Per Ft - 850	2.15	**2.15**
Trench Per Ft - 2550	2.15	**2.15**
Trench Per Ft - 5000	6.00	**6.00**
Trench Per Ft -10000	15.00	**15.00**
Backhoe Trench Fraction - 0	0.10	**0.10**
Backhoe Trench Fraction - 5	0.10	**0.10**
Backhoe Trench Fraction - 100	0.10	**0.10**
Backhoe Trench Fraction - 200	0.10	**0.10**
Backhoe Trench Fraction - 650	0.10	**0.10**
Backhoe Trench Fraction - 850	0.10	**0.10**
Backhoe Trench Fraction - 2550	0.10	**0.10**
Backhoe Trench Fraction - 5000	0.10	**0.10**
Backhoe Trench Fraction -10000	0.25	**0.25**
Backhoe Trench Per Ft - 0	3.00	**3.00**
Backhoe Trench Per Ft - 5	3.00	**3.00**
Backhoe Trench Per Ft - 100	3.00	**3.00**
Backhoe Trench Per Ft - 200	3.00	**3.00**
Backhoe Trench Per Ft - 650	3.00	**3.00**
Backhoe Trench Per Ft - 850	3.00	**3.00**
Backhoe Trench Per Ft - 2550	3.00	**3.00**
Backhoe Trench Per Ft - 5000	20.00	**20.00**
Backhoe Trench Per Ft -10000	30.00	**30.00**
Hand Trench Fraction - 0	0.00	**0.00**
Hand Trench Fraction - 5	0.00	**0.00**
Hand Trench Fraction - 100	0.00	**0.00**
Hand Trench Fraction - 200	0.01	**0.01**
Hand Trench Fraction - 650	0.02	**0.02**
Hand Trench Fraction - 850	0.04	**0.04**
Hand Trench Fraction - 2550	0.05	**0.05**
Hand Trench Fraction - 5000	0.06	**0.06**

Underground Excavation/Restoration	Current Scenario Value	Default Scenario Value
Cut/Restore Asphalt Fraction -10000	0.82	0.82
Cut/Restore Asphalt Per Ft - 0	6.00	6.00
Cut/Restore Asphalt Per Ft - 5	6.00	6.00
Cut/Restore Asphalt Per Ft - 100	6.00	6.00
Cut/Restore Asphalt Per Ft - 200	6.00	6.00
Cut/Restore Asphalt Per Ft - 650	6.00	6.00
Cut/Restore Asphalt Per Ft - 850	6.00	6.00
Cut/Restore Asphalt Per Ft - 2550	6.00	6.00
Cut/Restore Asphalt Per Ft - 5000	18.00	18.00
Cut/Restore Asphalt Per Ft -10000	30.00	30.00
Cut/Restore Concrete Fraction - 0	0.10	0.10
Cut/Restore Concrete Fraction - 5	0.10	0.10
Cut/Restore Concrete Fraction - 100	0.10	0.10
Cut/Restore Concrete Fraction - 200	0.10	0.10
Cut/Restore Concrete Fraction - 650	0.10	0.10
Cut/Restore Concrete Fraction - 850	0.10	0.10
Cut/Restore Concrete Fraction - 2550	0.15	0.15
Cut/Restore Concrete Fraction - 5000	0.15	0.15
Cut/Restore Concrete Fraction -10000	0.16	0.16
Cut/Restore Concrete Per Ft - 0	9.00	9.00
Cut/Restore Concrete Per Ft - 5	9.00	9.00
Cut/Restore Concrete Per Ft - 100	9.00	9.00
Cut/Restore Concrete Per Ft - 200	9.00	9.00
Cut/Restore Concrete Per Ft - 650	9.00	9.00
Cut/Restore Concrete Per Ft - 850	9.00	9.00
Cut/Restore Concrete Per Ft - 2550	9.00	9.00
Cut/Restore Concrete Per Ft - 5000	21.00	21.00
Cut/Restore Concrete Per Ft -10000	36.00	36.00
Cut/Restore Sod Fraction - 0	0.01	0.01
Cut/Restore Sod Fraction - 5	0.01	0.01
Cut/Restore Sod Fraction - 100	0.01	0.01
Cut/Restore Sod Fraction - 200	0.03	0.03
Cut/Restore Sod Fraction - 650	0.04	0.04
Cut/Restore Sod Fraction - 850	0.06	0.06
Cut/Restore Sod Fraction - 2550	0.04	0.04
Cut/Restore Sod Fraction - 5000	0.02	0.02
Cut/Restore Sod Fraction -10000	0.00	0.00
Cut/Restore Sod Per Ft - 0	1.00	1.00
Cut/Restore Sod Per Ft - 5	1.00	1.00
Cut/Restore Sod Per Ft - 100	1.00	1.00
Cut/Restore Sod Per Ft - 200	1.00	1.00
Cut/Restore Sod Per Ft - 650	1.00	1.00
Cut/Restore Sod Per Ft - 850	1.00	1.00
Cut/Restore Sod Per Ft - 2550	1.00	1.00
Cut/Restore Sod Per Ft - 5000	1.00	1.00
Cut/Restore Sod Per Ft -10000	1.00	1.00
Pavement Stabilization Per Ft - 0	5.00	5.00
Pavement Stabilization Per Ft - 5	5.00	5.00
Pavement Stabilization Per Ft - 100	5.00	5.00
Pavement Stabilization Per Ft - 200	5.00	5.00
Pavement Stabilization Per Ft - 650	5.00	5.00
Pavement Stabilization Per Ft - 850	9.00	9.00

Buried Excavation/Restoration	Current Scenario Value	Default Scenario Value
Hand Trench Fraction -10000	0.10	0.10
Hand Trench Per Ft - 0	5.00	5.00
Hand Trench Per Ft - 5	5.00	5.00
Hand Trench Per Ft - 100	5.00	5.00
Hand Trench Per Ft - 200	5.00	5.00
Hand Trench Per Ft - 650	5.00	5.00
Hand Trench Per Ft - 850	5.00	5.00
Hand Trench Per Ft - 2550	5.00	5.00
Hand Trench Per Ft - 5000	10.00	10.00
Hand Trench Per Ft -10000	18.00	18.00
Bore Cable Fraction - 0	0.00	0.00
Bore Cable Fraction - 5	0.00	0.00
Bore Cable Fraction - 100	0.00	0.00
Bore Cable Fraction - 200	0.00	0.00
Bore Cable Fraction - 650	0.00	0.00
Bore Cable Fraction - 850	0.03	0.03
Bore Cable Fraction - 2550	0.04	0.04
Bore Cable Fraction - 5000	0.05	0.05
Bore Cable Fraction -10000	0.05	0.05
Bore Cable Per Ft - 0	11.00	11.00
Bore Cable Per Ft - 5	11.00	11.00
Bore Cable Per Ft - 100	11.00	11.00
Bore Cable Per Ft - 200	11.00	11.00
Bore Cable Per Ft - 650	11.00	11.00
Bore Cable Per Ft - 850	11.00	11.00
Bore Cable Per Ft - 2550	11.00	11.00
Bore Cable Per Ft - 5000	11.00	11.00
Bore Cable Per Ft -10000	18.00	18.00
Push Pipe/Pull Cable Fraction - 0	0.02	0.02
Push Pipe/Pull Cable Fraction - 5	0.02	0.02
Push Pipe/Pull Cable Fraction - 100	0.02	0.02
Push Pipe/Pull Cable Fraction - 200	0.02	0.02
Push Pipe/Pull Cable Fraction - 650	0.02	0.02
Push Pipe/Pull Cable Fraction - 850	0.04	0.04
Push Pipe/Pull Cable Fraction - 2550	0.05	0.05
Push Pipe/Pull Cable Fraction - 5000	0.06	0.06
Push Pipe/Pull Cable Fraction -10000	0.06	0.06
Push Pipe/Pull Cable Per Ft - 0	6.00	6.00
Push Pipe/Pull Cable Per Ft - 5	6.00	6.00
Push Pipe/Pull Cable Per Ft - 100	6.00	6.00
Push Pipe/Pull Cable Per Ft - 200	6.00	6.00
Push Pipe/Pull Cable Per Ft - 650	6.00	6.00
Push Pipe/Pull Cable Per Ft - 850	6.00	6.00
Push Pipe/Pull Cable Per Ft - 2550	6.00	6.00
Push Pipe/Pull Cable Per Ft - 5000	6.00	6.00
Push Pipe/Pull Cable Per Ft -10000	24.00	24.00
Cut/Restore Asphalt Fraction - 0	0.03	0.03
Cut/Restore Asphalt Fraction - 5	0.03	0.03
Cut/Restore Asphalt Fraction - 100	0.03	0.03
Cut/Restore Asphalt Fraction - 200	0.03	0.03
Cut/Restore Asphalt Fraction - 650	0.03	0.03
Cut/Restore Asphalt Fraction - 850	0.05	0.05

Underground Excavation/Restoration	Current Scenario Value	Default Scenario Value
Pavement Stabilization Per Ft - 2550	13.00	**13.00**
Pavement Stabilization Per Ft - 5000	17.00	**17.00**
Pavement Stabilization Per Ft -10000	20.00	**20.00**
Dirt Stabilization Per Ft - 0	1.00	**1.00**
Dirt Stabilization Per Ft - 5	1.00	**1.00**
Dirt Stabilization Per Ft - 100	1.00	**1.00**
Dirt Stabilization Per Ft - 200	1.00	**1.00**
Dirt Stabilization Per Ft - 650	1.00	**1.00**
Dirt Stabilization Per Ft - 850	4.00	**4.00**
Dirt Stabilization Per Ft - 2550	11.00	**11.00**
Dirt Stabilization Per Ft - 5000	12.00	**12.00**
Dirt Stabilization Per Ft -10000	16.00	**16.00**
Simple Backfill - 0	0.15	**0.15**
Simple Backfill - 5	0.15	**0.15**
Simple Backfill - 100	0.15	**0.15**
Simple Backfill - 200	0.15	**0.15**
Simple Backfill - 650	0.15	**0.15**
Simple Backfill - 850	0.15	**0.15**
Simple Backfill - 2550	0.15	**0.15**
Simple Backfill - 5000	0.15	**0.15**
Simple Backfill -10000	0.15	**0.15**

Buried Excavation/Restoration	Current Scenario Value	Default Scenario Value
Cut/Restore Asphalt Fraction - 2550	0.08	**0.08**
Cut/Restore Asphalt Fraction - 5000	0.18	**0.18**
Cut/Restore Asphalt Fraction -10000	0.60	**0.60**
Cut/Restore Asphalt Per Ft - 0	6.00	**6.00**
Cut/Restore Asphalt Per Ft - 5	6.00	**6.00**
Cut/Restore Asphalt Per Ft - 100	6.00	**6.00**
Cut/Restore Asphalt Per Ft - 200	6.00	**6.00**
Cut/Restore Asphalt Per Ft - 650	6.00	**6.00**
Cut/Restore Asphalt Per Ft - 850	6.00	**6.00**
Cut/Restore Asphalt Per Ft - 2550	6.00	**6.00**
Cut/Restore Asphalt Per Ft - 5000	18.00	**18.00**
Cut/Restore Asphalt Per Ft -10000	30.00	**30.00**
Cut/Restore Concrete Fraction - 0	0.01	**0.01**
Cut/Restore Concrete Fraction - 5	0.01	**0.01**
Cut/Restore Concrete Fraction - 100	0.01	**0.01**
Cut/Restore Concrete Fraction - 200	0.01	**0.01**
Cut/Restore Concrete Fraction - 650	0.01	**0.01**
Cut/Restore Concrete Fraction - 850	0.03	**0.03**
Cut/Restore Concrete Fraction - 2550	0.05	**0.05**
Cut/Restore Concrete Fraction - 5000	0.08	**0.08**
Cut/Restore Concrete Fraction -10000	0.20	**0.20**
Cut/Restore Concrete Per Ft - 0	9.00	**9.00**
Cut/Restore Concrete Per Ft - 5	9.00	**9.00**
Cut/Restore Concrete Per Ft - 100	9.00	**9.00**
Cut/Restore Concrete Per Ft - 200	9.00	**9.00**
Cut/Restore Concrete Per Ft - 650	9.00	**9.00**
Cut/Restore Concrete Per Ft - 850	9.00	**9.00**
Cut/Restore Concrete Per Ft - 2550	9.00	**9.00**
Cut/Restore Concrete Per Ft - 5000	21.00	**21.00**
Cut/Restore Concrete Per Ft -10000	36.00	**36.00**
Cut/Restore Sod Fraction - 0	0.02	**0.02**
Cut/Restore Sod Fraction - 5	0.02	**0.02**
Cut/Restore Sod Fraction - 100	0.02	**0.02**
Cut/Restore Sod Fraction - 200	0.02	**0.02**
Cut/Restore Sod Fraction - 650	0.02	**0.02**
Cut/Restore Sod Fraction - 850	0.35	**0.35**
Cut/Restore Sod Fraction - 2550	0.35	**0.35**
Cut/Restore Sod Fraction - 5000	0.11	**0.11**
Cut/Restore Sod Fraction -10000	0.05	**0.05**
Cut/Restore Sod Per Ft - 0	1.00	**1.00**
Cut/Restore Sod Per Ft - 5	1.00	**1.00**
Cut/Restore Sod Per Ft - 100	1.00	**1.00**
Cut/Restore Sod Per Ft - 200	1.00	**1.00**
Cut/Restore Sod Per Ft - 650	1.00	**1.00**
Cut/Restore Sod Per Ft - 850	1.00	**1.00**
Cut/Restore Sod Per Ft - 2550	1.00	**1.00**
Cut/Restore Sod Per Ft - 5000	1.00	**1.00**
Cut/Restore Sod Per Ft -10000	1.00	**1.00**
Restoration Not Required - 0	0.62	**0.62**
Restoration Not Required - 5	0.62	**0.62**
Restoration Not Required - 100	0.62	**0.62**
Restoration Not Required - 200	0.52	**0.52**

Underground Excavation/Restoration	Current Scenario Value	Default Scenario Value

Buried Excavation/Restoration	Current Scenario Value	Default Scenario Value
Restoration Not Required - 650	0.37	**0.37**
Restoration Not Required - 850	0.27	**0.27**
Restoration Not Required - 2550	0.09	**0.09**
Restoration Not Required - 5000	0.11	**0.11**
Restoration Not Required -10000	0.11	**0.11**
Simple Backfill - 0	0.15	**0.15**
Simple Backfill - 5	0.15	**0.15**
Simple Backfill - 100	0.15	**0.15**
Simple Backfill - 200	0.15	**0.15**
Simple Backfill - 650	0.15	**0.15**
Simple Backfill - 850	0.15	**0.15**
Simple Backfill - 2550	0.15	**0.15**
Simple Backfill - 5000	0.15	**0.15**
Simple Backfill -10000	0.15	**0.15**

Underground Excavation/Restoration	Current Scenario Value	Default Scenario Value	Buried Excavation/Restoration	Current Scenario Value	Default Scenario Value

Surface Texture Table		Effect	fraction of CBG	Effect	fraction of CBG
BY	Bouldery	1	1	1	1
BY-COS	Bouldery Coarse Sand	1	1	1	1
BY-FSL	Bouldery & Fine Sandy Loam	1	1	1	1
BY-L	Bouldery & Loam	1	1	1	1
BY-LS	Bouldery & Sandy Loam	1	1	1	1
BY-SICL	Bouldery & Silty Clay Loam	1	1	1	1
BY-SL	Bouldery & Sandy Loam	1	1	1	1
BYV	Very Bouldery	1.1	1	1.1	1
BYV-FSL	Very Bouldery & Fine Sandy Loam	1.1	1	1.1	1
BYV-L	Very bouldery & Loamy	1.1	1	1.1	1
BYV-LS	Very Bouldery & Loamy Sand	1.1	1	1.1	1
BYV-SIL	Very Bouldery & Silt	1.1	1	1.1	1
BYV-SL	Very Bouldery & Sandy Loam	1.1	1	1.1	1
BYX	Extremely Bouldery	1.3	1	1.3	1
BYX-FSL	Extremely Bouldery & Fine Sandy Loam	1.3	1	1.3	1
BYX-L	Extremely Bouldery & Loamy	1.3	1	1.3	1
BYX-SIL	Extremely Bouldery & Silt Loam	1.3	1	1.3	1
BYX-SL	Extremely Bouldery & Sandy Loam	1.3	1	1.3	1
C	Clay	1	1	1	1
CB	Cobbly	1	1	1	1
CB-C	Cobbly & Clay	1	1	1	1
CB-CL	Cobbly & Clay Loam	1	1	1	1
CB-COSL	Cobbly & Coarse Sandy Loam	1	1	1	1
CB-FS	Cobbly & Fine Sand	1.1	1	1.1	1
CB-FSL	Cobbly & Fine Sandy Loam	1.1	1	1.1	1
CB-L	Cobbly & Loamy	1	1	1	1
CB-LCOS	Cobbly & Loamy coarseSand	1	1	1	1
CB-LS	Cobbly & Loamy Sand	1	1	1	1
CB-S	Cobbly & Sand	1.1	1	1.1	1
CB-SCL	Cobbly & Sandy Clay Loam	1	1	1	1
CB-SICL	Cobbly & Silty Clay Loam	1	1	1	1
CB-SIL	Cobbly & Silt Loam	1	1	1	1
CB-SL	Cobbly & Sandy Loam	1.1	1	1.1	1
CBA	Angular Cobbly	1	1	1	1
CBA-FSL	Angular Cobbly & Fine Sandy Loam	1.1	1	1.1	1
CBV	Very Cobbly	1.2	1	1.2	1
CBV-C	Very Cobbly & Clay	1.2	1	1.2	1
CBV-CL	Very Cobbly & Clay Loam	1.2	1	1.2	1
CBV-FSL	Very Cobbly & Fine Sandy Loam	1.2	1	1.2	1
CBV-L	Very Cobbly & Loamy	1.2	1	1.2	1
CBV-LFS	Very Cobbly & Fine Loamy Sand	1.2	1	1.2	1
CBV-LS	Very Cobbly & Loamy Sand	1.2	1	1.2	1
CBV-MUCK	Very Cobbly & Muck	1.2	1	1.2	1
CBV-SCL	Very Cobbly & Sandy Clay Loam	1.2	1	1.2	1
CBV-SIL	Very Cobbly & Silt	1.2	1	1.2	1
CBV-SL	Very Cobbly & Sandy Loam	1.2	1	1.2	1
CBV-VFS	Very Cobbly & Very Fine Sand	1.2	1	1.2	1
CBX	Extremely Cobbly	1.2	1	1.2	1
CBX-CL	Extremely Cobbly & Clay	1.2	1	1.2	1
CBX-L	Extremely Cobbly Loam	1.2	1	1.2	1
CBX-SIL	Extremely Cobbly & Silt	1.2	1	1.2	1
CBX-SL	Extremely Cobbly &Sandy Loam	1.2	1	1.2	1
CBX-VFSL	Extremely Cobbly Very Fine Sandy Loam	1.3	1	1.3	1

Labor Adjustment Factors	Current Scenario Value	Default Scenario Value
Regional Labor Adjustment Factor	1	1
Contractor excavation and restoration	0.125	0.125
Telco construction -- copper	0.164	0.164
Telco construction -- fiber	0.364	0.364
Telco drop/NID installation and maintenance	0.571	0.571
Contractor pole setting	0.518	0.518

Surface Texture Table		Effect	Fraction of CBG	Effect	Fraction of CBG	Labor Adjustment Factors	Current Scenario Value	Default Scenario Value
CE	Coprogenous Earth	1	1	1	1			
CIND	Cinders	1	1	1	1			
CL	Clay Loam	1	1	1	1			
CM	Cemented	1.3	1	1.3	1			
CN	Channery	1	1	1	1			
CN-CL	Channery & Clay Loam	1	1	1	1			
CN-FSL	Channery & Fine Sandy Loam	1.1	1	1.1	1			
CN-L	Channery & Loam	1	1	1	1			
CN-SICL	Channery & Silty Clay Loam	1	1	1	1			
CN-SIL	Channery & Silty Loam	1	1	1	1			
CN-SL	Channery & Sandy Loam	1	1	1	1			
CNV	Very Channery	1	1	1	1			
CNV-CL	Very Channery & Clay	1	1	1	1			
CNV-L	Very Channery & Loam	1	1	1	1			
CNV-SCL	Channery & Sandy Clay Loam	1	1	1	1			
CNV-SIL	Very Channery & Silty Loam	1	1	1	1			
CNV-SL	Very Channery & Sandy Loam	1	1	1	1			
CNX	Extremely Channery	1	1	1	1			
CNX-SL	Extremely Channery & Sandy Loam	1	1	1	1			
COS	Coarse Sand	1	1	1	1			
COSL	Coarse Sandy Loam	1	1	1	1			
CR	Cherty	1.2	1	1.2	1			
CR-L	Cherty & Loam	1.2	1	1.2	1			
CR-SICL	Cherty & Silty Clay Loam	1.2	1	1.2	1			
CR-SIL	Cherty & Silty Loam	1.2	1	1.2	1			
CR-SL	Cherty & Sandy Loam	1.2	1	1.2	1			
CRC	Coarse Cherty	1.2	1	1.2	1			
CRV	Very Cherty	1.2	1	1.2	1			
CRV-L	Very Cherty & Loam	1.2	1	1.2	1			
CRV-SIL	Very Cherty & Silty Loam	1.2	1	1.2	1			
CRX	Extremely Cherty	1.3	1	1.3	1			
CRX-SIL	Extremely Cherty & Silty Loam	1.3	1	1.3	1			
DE	Diatomaceous Earth	1	1	1	1			
FB	Fibric Material	1	1	1	1			
FINE	Fine	1	1	1	1			
FL	Flaggy	1	1	1	1			
FL-FSL	Flaggy & Fine Sandy Loam	1.1	1	1.1	1			
FL-L	Flaggy & Loam	1	1	1	1			
FL-SIC	Flaggy & Silty Clay	1	1	1	1			
FL-SICL	Flaggy & Silty Clay Loam	1	1	1	1			
FL-SIL	Flaggy & Silty Loam	1	1	1	1			
FL-SL	Flaggy & Sandy Loam	1	1	1	1			
FLV	Very Flaggy	1.1	1	1.1	1			
FLV-COSL	Very Flaggy & Coarse Sandy Loam	1.1	1	1.1	1			
FLV-L	Very Flaggy & Loam	1.1	1	1.1	1			
FLV-SICL	Very Flaggy & Silty Clay Loam	1.1	1	1.1	1			
FLV-SL	Very Flaggy & Sandy Loam	1.1	1	1.1	1			
FLX	Extremely Flaggy	1.1	1	1.1	1			
FLX-L	Extremely Flaggy & Loamy	1.1	1	1.1	1			
FRAG	Fragmental Material	1	1	1	1			
FS	Fine Sand	1.1	1	1.1	1			
FSL	Fine Sandy Loam	1.1	1	1.1	1			

Surface Texture Table		Effect	fraction of CBG	Effect	fraction of CBG
G	Gravel	1	1	1	1
GR	Gravelly	1	1	1	1
GR-C	Gravel & Clay	1	1	1	1
GR-CL	Gravel & Clay Loam	1	1	1	1
GR-COS	Gravel & Coarse Sand	1	1	1	1
GR-COSL	Gravel & Coarse Sandy Loam	1	1	1	1
GR-FS	Gravel & Fine Sand	1	1	1	1
GR-FSL	Gravel & Fine Sandy Loam	1	1	1	1
GR-L	Gravel & Loam	1	1	1	1
GR-LCOS	Gravel & Loamy Coarse Sand	1	1	1	1
GR-LFS	Gravel & Loamy Fine Sand	1.1	1	1.1	1
GR-LS	Gravel & Loamy Sand	1	1	1	1
GR-MUCK	Gravel & Muck	1	1	1	1
GR-S	Gravel & Sand	1	1	1	1
GR-SCL	Gravel & Sandy Clay Loam	1	1	1	1
GR-SIC	Gravel & Silty Clay	1	1	1	1
GR-SICL	Gravel & Silty Clay Loam	1	1	1	1
GR-SIL	Gravel & Silty Loam	1	1	1	1
GR-SL	Gravel & Sandy Loam	1	1	1	1
GR-VFSL	Gravel & Very Fine Sandy Loam	1.1	1	1.1	1
GRC	Coarse Gravelly	1	1	1	1
GRF	Fine Gravel	1	1	1	1
GRF-SIL	Fine Gravel Silty Loam	1	1	1	1
GRV	Very Gravelly	1	1	1	1
GRV-CL	Very gravelly & Clay Loam	1	1	1	1
GRV-COS	Very Gravelly & coarse Sand	1	1	1	1
GRV-COSL	Very Gravelly & coarse Sandy Loam	1	1	1	1
GRV-FSL	Very Gravelly & Fine Sandy Loam	1	1	1	1
GRV-L	Very Gravelly & Loam	1	1	1	1
GRV-LCOS	Very Gravelly & Loamy Coarse Sand	1	1	1	1
GRV-LS	Very Gravelly & Loamy Sand	1	1	1	1
GRV-S	Very Gravelly & Sand	1	1	1	1
GRV-SCL	Very Gravelly & Sandy Clay Loam	1	1	1	1
GRV-SICL	Very Gravelly & Silty Clay Loam	1	1	1	1
GRV-SIL	Very Gravelly & Silt	1	1	1	1
GRV-SL	Very Gravelly & Sandy Loam	1	1	1	1
GRV-VFS	Very Gravelly & Very Fine Sand	1	1	1	1
GRV-VFSL	Very Gravelly & Very Fine Sandy Loam	1	1	1	1
GRX	Extremely Gravelly	1.1	1	1.1	1
GRX-CL	Extremely Gravelly & Coarse Loam	1.1	1	1.1	1
GRX-COS	Extremely Gravelly & Coarse Sand	1.1	1	1.1	1
GRX-COSL	Extremely Gravelly & Coarse Sandy Loam	1.1	1	1.1	1
GRX-FSL	Extremely Gravelly & Fine Sand Loam	1.1	1	1.1	1
GRX-L	Extremely Gravelly & Loam	1.1	1	1.1	1
GRX-LCOS	Extremely Gravelly & Loamy Coarse	1.1	1	1.1	1
GRX-LS	Extremely Gravelly & Loamy Sand	1.1	1	1.1	1
GRX-S	Extremely Gravelly & Sand	1.1	1	1.1	1
GRX-SIL	Extremely Gravelly & Silty Loam	1.1	1	1.1	1
GRX-SL	Extremely Gravelly & Sandy Loam	1.1	1	1.1	1
GYP	Gypsiferous Material	1.2	1	1.2	1
HM	Hemic Material	1	1	1	1
ICE	Ice or Frozen Soil	1.5	1	1.5	1

Labor Adjustment Factors	Current Scenario Value	Default Scenario Value

Surface Texture Table		Effect	fraction of CBG	Effect	fraction of CBG
IND	Indurated	1.2	1	1.2	1
L	Loam	1	1	1	1
LCOS	Loamy Coarse Sand	1	1	1	1
LFS	Loamy Fine Sand	1.1	1	1.1	1
LS	Loamy Sand	1	1	1	1
LVFS	Loamy Very Fine Sand	1	1	1	1
MARL	Marl	1	1	1	1
MEDIUM	Medium Coarse	1	1	1	1
MK	Mucky	1	1	1	1
MK-C	Mucky Clay	1	1	1	1
MK-CL	Mucky Clay Loam	1	1	1	1
MK-FS	Muck & Fine Sand	1	1	1	1
MK-FSL	Muck & Fine Sandy Loam	1	1	1	1
MK-L	Mucky Loam	1	1	1	1
MK-LFS	Mucky Loamy Fine Sand	1	1	1	1
MK-LS	Mucky Loamy Sand	1	1	1	1
MK-S	Muck & Sand	1	1	1	1
MK-SI	Mucky & Silty	1	1	1	1
MK-SICL	Mucky & Silty Clay Loam	1	1	1	1
MK-SIL	Mucky Silt	1	1	1	1
MK-SL	Mucky & Sandy Loam	1	1	1	1
MK-VFSL	Mucky & Very Fine Sandy Loam	1	1	1	1
MPT	Mucky Peat	1	1	1	1
MUCK	Muck	1	1	1	1
PEAT	Peat	1	1	1	1
PT	Peaty	1	1	1	1
RB	Rubbly	1.5	1	1.5	1
RB-FSL	Rubbly Fine Sandy Loam	1.5	1	1.5	1
S	Sand	1	1	1	1
SC	Sandy Clay	1	1	1	1
SCL	Sandy Clay Loam	1	1	1	1
SG	Sand & Gravel	1	1	1	1
SH	Shaly	1	1	1	1
SH-CL	Shaly & Clay	1	1	1	1
SH-L	Shale & Loam	1	1	1	1
SH-SICL	Shaly & Silty Clay Loam	1	1	1	1
SH-SIL	Shaly & Silt Loam	1	1	1	1
SHV	Very Shaly	1.5	1	1.5	1
SHV-CL	Very Shaly & Clay Loam	1.5	1	1.5	1
SHX	Extremely Shaly	2	1	2	1
SI	Silt	1	1	1	1
SIC	Silty Clay	1	1	1	1
SICL	Silty Clay Loam	1	1	1	1
SIL	Silt Loam	1	1	1	1
SL	Sandy Loam	1	1	1	1
SP	Sapric Material	1	1	1	1
SR	Stratified	1	1	1	1
ST	Stony	1	1	1	1
ST-C	Stony & Clay	1	1	1	1
ST-CL	Stony & Clay Loam	1	1	1	1
ST-COSL	Stony & Coarse Sandy Loam	1	1	1	1
ST-FSL	Stony & Fine Sandy Loam	1.1	1	1.1	1

Labor Adjustment Factors	Current Scenario Value	Default Scenario Value

Surface Texture Table		Effect fraction of CBG		Effect fraction of CBG		Labor Adjustment Factors	Current Scenario Value	Default Scenario Value
ST-L	Stony & Loamy	1	1	1	1			
ST-LCOS	Stony & Loamy Coarse Sand	1	1	1	1			
ST-LFS	Stony & Loamy Fine Sand	1.1	1	1.1	1			
ST-LS	Stony & Loamy Sand	1	1	1	1			
ST-SIC	Stony & Silty Clay	1	1	1	1			
ST-SICL	Stony & Silty Clay Loam	1	1	1	1			
ST-SIL	Stony & Silt Loam	1	1	1	1			
ST-SL	Stony & Sandy Loam	1	1	1	1			
ST-VFSL	Stony & Sandy Very Fine Silty Loam	1.1	1	1.1	1			
STV	Very Stony	1.2	1	1.2	1			
STV-C	Very Stony & Clay	1.2	1	1.2	1			
STV-CL	Very Stony & Clay Loam	1.2	1	1.2	1			
STV-FSL	Very Stony & Fine Sandy Loam	1.2	1	1.2	1			
STV-L	Very Stony & Loamy	1.2	1	1.2	1			
STV-LFS	Very Stony & Loamy Fine Sand	1.2	1	1.2	1			
STV-LS	Very Stony & Loamy Sand	1.2	1	1.2	1			
STV-MPT	Very Stony & Mucky Peat	1.2	1	1.2	1			
STV-MUCK	Very Stony & Muck	1.2	1	1.2	1			
STV-SICL	Very Stony & Silty Clay Loam	1.2	1	1.2	1			
STV-SIL	Very Stony & Silty Loam	1.2	1	1.2	1			
STV-SL	Very Stony & Sandy Loam	1.2	1	1.2	1			
STV-VFSL	Very Stony & Very Fine Sandy Loam	1.2	1	1.2	1			
STX	Extremely Stony	1.3	1	1.3	1			
STX-C	Extremely Stony & Clay	1.3	1	1.3	1			
STX-CL	Extremely Stony & Clay Loam	1.3	1	1.3	1			
STX-COS	Extremely Stony & Coarse Sand	1.3	1	1.3	1			
STX-COSL	Extremely Stony & Coarse Sand Loam	1.3	1	1.3	1			
STX-FSL	Extremely Stony & Fine Sandy Loam	1.3	1	1.3	1			
STX-L	Extremely Stony & Loamy	1.3	1	1.3	1			
STX-LCOS	Extremely Stony & Loamy Coarse Sand	1.3	1	1.3	1			
STX-LS	Extremely Stony & Loamy Sand	1.3	1	1.3	1			
STX-MUCK	Extremely Stony & Muck	1.3	1	1.3	1			
STX-SIC	Extremely Stony & Silty Clay	1.3	1	1.3	1			
STX-SICL	Extremely Stony & Silty Clay Loam	1.3	1	1.3	1			
STX-SIL	Extremely Stony & Silty Loam	1.3	1	1.3	1			
STX-SL	Extremely Stony & Sandy Loam	1.3	1	1.3	1			
STX-VFSL	Extremely Stony & Very Fine Sandy Loam	1.3	1	1.3	1			
SY	Slaty	3	1	3	1			
SY-L	Slaty & Loam	3	1	3	1			
SY-SIL	Slaty & Silty Loam	3	1	3	1			
SYV	Very Slaty	3.5	1	3.5	1			
SYX	Extremely Slaty	4	1	4	1			
UNK	Unknown	1	1	1	1			
UWB	Unweathered Bedrock	2	1	2	1			
VAR	Variable	1	1	1	1			
VFS	Very Fine Sand	1	1	1	1			
VFSL	Very Fine Sandy loam	1	1	1	1			
WB	Weathered Bedrock	3	1	3	1			

Document Number: 09288-05 Is/Was Confidential: Y
Order Number: Type: (•) Other
Fine/Settlement: N ( ) Motion
Filing Date: 09/29/2005 ( ) Order
Suffix: TL ( ) NOI
Co. Name: ALLTEL Florida, Inc.

DESCRIPTION

ALLTEL (Wahlen) - (CONFIDENTIAL) Highlighted portions of Exhibit DCB-4 to David C. Blessing direct testimony.

CONFIDENTIAL

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 12
Company/ Alltel
Witness: David C. Blessing (DCB-4)
Date: 12/01/05

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-5)
Embedded Cost Study

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-5

ALLTEL Florida 2004 embedded cost study.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 13
Company/ Alltel
Witness: David C. Blessing (DCB-5)
Date: 12/01/05

Rural LEC Summary by Wire Center

	Embedded Study	Staff's Primary	Difference	Wire Center	Staff's Alternative	Difference	Number of Residential and Single Business Lines
ALLTEL	$ 41.97	$ 41.32	$ 0.65	ALCHFLXA	$ 43.16	$ (1.19)	5,493
				BORAFLXA	$ 131.42	$ (89.45)	404
				BRFRFLXA	$ 54.57	$ (12.60)	3,846
				BRKRFLXA	$ 84.31	$ (42.34)	1,220
				CITRFLXA	$ 43.52	$ (1.55)	2,038
				CLHNFLXA	$ 50.37	$ (8.40)	5,447
				CRCYFLXA	$ 44.05	$ (2.08)	2,049
				DWPKFLXA	$ 80.85	$ (38.88)	1,063
				FLRHFLXA	$ 66.72	$ (24.75)	1,183
				FTWHFLXA	$ 79.01	$ (37.04)	1,627
				HGSPFLXA	$ 50.61	$ (8.64)	4,741
				HLRDFLXA	$ 70.49	$ (28.52)	2,580
				HSNGFLXA	$ 60.50	$ (18.53)	1,765
				INTRFLXA	$ 65.35	$ (23.38)	4,171
				JNGSFLXA	$ 96.46	$ (54.49)	1,415
				JSPRFLXA	$ 43.75	$ (1.78)	1,871
				LKBTFLXA	$ 50.12	$ (8.15)	2,609
				LRVLFLXA	$ 108.02	$ (66.05)	1,238
				LVOKFLXA	$ 35.47	$ 6.50	7,308
				MAYOFLXA	$ 97.38	$ (55.41)	1,663
				MCINFLXA	$ 57.49	$ (15.52)	3,264
				MLRSFLXA	$ 34.29	$ 7.68	3,134
				ORSPFLXA	$ 79.35	$ (37.38)	1,959
				RAFRFLXA	$ 58.46	$ (16.49)	537
				WALDFLXA	$ 60.51	$ (18.54)	1,838
				WHSPFLXA	$ 77.60	$ (35.63)	1,052
				WLBRFLXA	$ 108.37	$ (66.40)	1,493
Frontier	$ 56.13	$ 44.30	$ 11.83	WLHLFXA	$ 47.20	$ 8.93	1,642
				MOLNFLXA	$ 94.61	$ (38.48)	2,442
GTC - Florala	$ 49.81	$ 42.18	$ 7.63	PXTNFLXA	$ 118.24	$ (68.43)	1,462
				LRHLFLXA	$ 96.04	$ (46.23)	826
GTC - Gulf	$ 38.07	$ 33.43	$ 4.64	PRRYFLXA	$ 53.94	$ (15.87)	8,086
GTC - St. Joe	$ 44.16	$ 38.99	$ 5.17	PTSJFLXA	$ 77.76	$ (33.60)	3,921
				TAFBFLXA	$ 35.45	$ 8.71	1,358
				ARPNFLXA	$ 72.60	$ (28.44)	547
				HSFRFLXA	$ 62.09	$ (17.93)	762
				WWHTFLXA	$ 78.22	$ (34.06)	2,356
				BRSTFLXA	$ 31.56	$ 12.60	1,893
				THBHFLXA	$ 48.30	$ (4.14)	2,598
				APLCFLXA	$ 52.66	$ (8.50)	2,182
				CHTHFLXA	$ 87.72	$ (43.56)	1,823
				ESPNFLXA	$ 44.67	$ (0.51)	2,733
				BLTWFLXA	$ 37.92	$ 6.24	3,769
				CRBLFLXA	$ 24.81	$ 19.35	2,190
				ALTHFLXA	$ 62.43	$ (18.27)	1,532
ITS	$ 71.00	$ 65.50	$ 5.50	INTWFLXA	$ 44.98	$ 26.02	3,144
Northeast	$ 65.39	$ 55.43	$ 9.96	MCLNFLXA	$ 40.32	$ 25.07	5,720
				SNSNFLXA	$ 116.52	$ (51.13)	975
TDS - Quincy	$ 44.40	$ 42.81	$ 1.59	GNBOFLXA	$ 77.11	$ (32.71)	1,349
				GRETFLXA	$ 88.25	$ (43.85)	1,310
				QNCYFLXA	$ 34.90	$ 9.50	9,058
Vista-United	$ 66.54	$ 63.34	$ 3.20	LKBNFLXB	$ 15.22	$ 51.32	8,116

Benchmark Cost Proxy Model Results

Area Wide Summary Report

TOTAL SUMMARY
. LLTEL SERVICE CORP.
. LORIDA
WIRE CENTERS [27]

Investment Per Line Data	Uncapped Annual Amount	Capped[1] Annual Amount
Loop Investment	$ 3,690	$ 2,438
Switch Investment	$ 252	$ 252
IOF Investment	$ 37	$ 37
Other Investment	$ 237	$ 177
Total Investment	$ 4,218	$ 2,904

Expense Per Month Data		
Total Capital Cost per Line	$ 55.13	$ 38.46
Total Operating Expense per Line	$ 17.63	$ 15.05
Total Cost per Line	$ 61.52 72.76	$ 5694 53.51 41.32
Gross Receipts Tax[2]	$ 1.08	$ 0.83

Line Data	
Average Loop Length in Feet	30,685
Lines Above $4K Loop Investment	2,857
Number of Households	53,054
Number of Residential Lines	64,372
Number of Single Business Lines	2,636
Multiple Business Lines	14,265
Non Switched Lines	0
Total GRID Lines Served	81,273

GRIDs with Average Loop Investment per line over $4,350 are capped at $4,350.
Application varies so much on a state by state basis, it is not included in the Monthly Cost.

Assumptions:
WIRE CENTER] C:\BCPM31_FL_COMPLIANCE\RESULTS\STAFFGTE_STAFFGTE_WC_REPORT.CSV
PROCESSING - STAFFGTE ; CAPCOST - STAFFGTE

Benchmark Cost Proxy Model Results

Aggregate Support Summary

TOTAL SUMMARY
ALLTEL SERVICE CORP.
FLORIDA
WIRE CENTERS [27]

Residental Aggregate Support Data		Uncapped Annual Amount		Capped[1] Annual Amount
Support Over $15.00 Benchmark	$	38,706,409	$	25,447,510
Support Over $18.00 Benchmark	$	36,835,921	$	23,577,022
Support Over $20.00 Benchmark	$	35,588,929	$	22,330,030
Support Over $31.00 Benchmark	$	28,730,473	$	15,471,574
Support Over $60.00 Benchmark	$	13,235,096	$	2,251,758
Support Over $70.00 Benchmark	$	9,697,385	$	852,182
Support Over $80.00 Benchmark	$	7,340,973	$	144,550

Business Aggregate Support Data				
Support Over $15.00 Benchmark	$	1,660,349	$	1,113,069
Support Over $18.00 Benchmark	$	1,565,453	$	1,018,173
Support Over $20.00 Benchmark	$	1,502,189	$	954,909
Support Over $51.00 Benchmark	$	628,426	$	161,837
Support Over $60.00 Benchmark	$	458,880	$	67,919
Support Over $70.00 Benchmark	$	346,385	$	25,970
Support Over $80.00 Benchmark	$	264,541	$	4,294

Total Aggregate Support Data				
Support at Res $15.00 and Bus $15.00	$	40,366,759	$	26,560,579
Support at Res $18.00 and Bus $18.00	$	38,401,375	$	24,595,195
Support at Res $20.00 and Bus $20.00	$	37,091,119	$	23,284,939
Support at Res $31.00 and Bus $51.00	$	29,358,899	$	15,633,411
Support at Res $60.00 and Bus $60.00	$	13,693,977	$	2,319,677
Support at Res $70.00 and Bus $70.00	$	10,043,769	$	878,152
Support at Res $80.00 and Bus $80.00	$	7,605,514	$	148,844

Assumptions:

[WIRE CENTER] C:\BCPM31_FL_COMPLIANCE\RESULTS\STAFFGTE_STAFFGTE_WC_REPORT.CSV

PROCESSING - STAFFGTE : CAPCOST - STAFFGTE

Benchmark Cost Proxy Model Results

Area Wide Summary Report

TOTAL SUMMARY
. LLTEL SERVICE CORP.
FLORIDA
"/IRE CENTERS [27]

Investment Per Line Data	Uncapped Annual Amount	Capped[1] Annual Amount
Loop Investment	$ 3,690	$ 3,174
Switch Investment	$ 252	$ 252
IOF Investment	$ 37	$ 37
Other Investment	$ 237	$ 212
Total Investment	$ 4,218	$ 3,676
Expense Per Month Data		
Total Capital Cost per Line	$ 55.13	$ 48.35
Total Operating Expense per Line	$ 17.63	$ 16.72
Total Cost per Line	$ 72.76	$ 65.07
Gross Receipts Tax[2]	$ 1.08	$ 0.98

Line Data	
Average Loop Length in Feet	30,685
Lines Above $10K Loop Investment	2,857
Number of Households	53,054
Number of Residential Lines	64,372
Number of Single Business Lines	2,636
Multiple Business Lines	14,265
Non Switched Lines	0
Total GRID Lines Served	81,273

GRIDs with Average Loop Investment per line over $10,000 are capped at $10,000.
2 Application varies so much on a state by state basis, it is not included in the Monthly Cost.

mptions:
E CENTER] C:\BCPM31_FL_COMPLIANCE\RESULTS\DAVE_DAVE_WC_REPORT.CSV
ROCESSING - DAVE : CAPCOST - DAVE

Benchmark Cost Proxy Model Results

Aggregate Support Summary

T)TAL SUMMARY
A..LTEL SERVICE CORP.
FLORIDA
\ IRE CENTERS [27]

Residental Aggregate Support Data		Uncapped Annual Amount		Capped[1] Annual Amount
Support Over $15.00 Benchmark	$	38,706,409	$	33,563,884
Support Over $18.00 Benchmark	$	36,835,921	$	31,693,396
Support Over $20.00 Benchmark	$	35,588,929	$	30,446,404
Support Over $31.00 Benchmark	$	28,730,473	$	23,587,948
Support Over $60.00 Benchmark	$	13,235,096	$	8,554,149
Support Over $70.00 Benchmark	$	9,697,385	$	5,720,830
Support Over $80.00 Benchmark	$	7,340,973	$	3,897,094

Business Aggregate Support Data				
Support Over $15.00 Benchmark	$	1,660,349	$	1,437,053
Support Over $18.00 Benchmark	$	1,565,453	$	1,342,157
Support Over $20.00 Benchmark	$	1,502,189	$	1,278,893
Support Over $51.00 Benchmark	$	628,426	$	420,929
Support Over $60.00 Benchmark	$	458,880	$	285,539
Support Over $70.00 Benchmark	$	346,385	$	184,263
Support Over $80.00 Benchmark	$	264,541	$	126,551

Total Aggregate Support Data				
Support at Res $15.00 and Bus $15.00	$	40,366,759	$	35,000,937
Support at Res $18.00 and Bus $18.00	$	38,401,375	$	33,035,553
Support at Res $20.00 and Bus $20.00	$	37,091,119	$	31,725,297
Support at Res $31.00 and Bus $51.00	$	29,358,899	$	24,008,877
Support at Res $60.00 and Bus $60.00	$	13,693,977	$	8,839,687
Support at Res $70.00 and Bus $70.00	$	10,043,769	$	5,905,092
Support at Res $80.00 and Bus $80.00	$	7,605,514	$	4,023,645

Assumptions:

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OCESSING - DAVE : CAPCOST - DAVE

Docket No. 980696-TP
REVISED 12/17/98

ALLTEL FLORIDA INC
Florida
View: Processing - FPSCG : Capcost - FPSCG

	Monthly Cost per Line per Month			
Wire Center	Capital Cost	Operating Expense	White Pages Directory Listings Expense	Total Cost
ALCHFLXARS1	$ 29.97	$ 12.79	$ 0.40	$ 43.16
BORAFLXARS1	$ 105.25	$ 25.77	$ 0.40	$ 131.42
BRFRFLXARS1	$ 39.70	$ 14.47	$ 0.40	$ 54.57
BRKRFLXADS0	$ 64.48	$ 19.43	$ 0.40	$ 84.31
CITRFLXADS0	$ 29.31	$ 13.81	$ 0.40	$ 43.52
CLHNFLXADS0	$ 36.36	$ 13.61	$ 0.40	$ 50.37
CRCYFLXADS0	$ 29.84	$ 13.81	$ 0.40	$ 44.05
DWPKFLXARS0	$ 61.64	$ 18.81	$ 0.40	$ 80.85
FLRHFLXADS1	$ 48.79	$ 17.52	$ 0.40	$ 66.72
FTWHFLXADS0	$ 59.57	$ 19.04	$ 0.40	$ 79.01
HGSPFLXADS0	$ 36.16	$ 14.05	$ 0.40	$ 50.61
HLRDFLXADS0	$ 53.41	$ 16.68	$ 0.40	$ 70.49
HSNGFLXADS0	$ 44.41	$ 15.69	$ 0.40	$ 60.50
INTRFLXADS0	$ 48.11	$ 16.84	$ 0.40	$ 65.35
JNGSFLXARS1	$ 75.64	$ 20.41	$ 0.40	$ 96.46
JSPRFLXARS1	$ 30.43	$ 12.99	$ 0.40	$ 43.75
LKBTFLXADS0	$ 35.95	$ 13.77	$ 0.40	$ 50.12
LRVLFLXARS1	$ 84.79	$ 22.84	$ 0.40	$ 108.02
LVOKFLXADS0	$ 23.47	$ 11.60	$ 0.40	$ 35.47
MAYOFLXARS1	$ 76.88	$ 20.10	$ 0.40	$ 97.38
MCINFLXADS0	$ 41.52	$ 15.56	$ 0.40	$ 57.49
MLRSFLXADS0	$ 21.87	$ 12.00	$ 0.40	$ 34.29
ORSPFLXADS0	$ 60.22	$ 18.74	$ 0.40	$ 79.35
RAFRFLXARS1	$ 42.65	$ 15.41	$ 0.40	$ 58.46
WALDFLXADS0	$ 44.27	$ 15.84	$ 0.40	$ 60.51
WHSPFLXARS1	$ 60.38	$ 16.62	$ 0.40	$ 77.40
WLBRFLXADS0	$ 85.17	$ 20.80	$ 0.40	$ 106.37

Comparison of Results Filed in DN 980696-TP

	BCPM 3.1 Results at Default Inputs	BCPM 3.1 Results at LEC Inputs	HAI 5.0a Results	LEC Embedded Costs
ALLTEL	$66.37			$41.97
Centel	$37.13	$33.14	$26.23	NA
Florala	$96.34			$49.81
Frontier	$77.96			$56.13
GTE	$29.43	$32.08	$15.07	
Gulf	$64.69			$38.07
Indiantown	$51.76			$73.07
Northeast	$55.39			$65.87
Quincy	$50.82			$44.39
BellSouth	$28.63	$31.51	$15.11	
St. Joe	$66.85			$44.16
United	$32.98	$33.14	$17.86	
Vista-United	$31.36			$65.65
ALL FL WCs	$30.06			

Notes:
(1) LEC results for Centel and United are for total Sprint Florida.
(2) HAI only produces results for non-rural LECs (values from Guepe direct).

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Dkt. No _____
D. Blessing Ex. No. ___ (DCB-6)
Universal Service

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-6

Florida Statute § 364.025 Universal Service

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 14
Company/ Alltel
Witness: David C Blessing (DCB-6)
Date: 12/01/05

*43904 West's F.S.A. § 364.025

WEST'S FLORIDA STATUTES ANNOTATED
TITLE XXVII. RAILROADS AND OTHER REGULATED UTILITIES (CHAPTERS 350-368)
CHAPTER 364. TELECOMMUNICATIONS COMPANIES
PART I. GENERAL PROVISIONS

Current through Chapter 484 and H.J.R. No. 1 and S.J.R. No. 2394 (End) of 2004 Special "A" Session of the Nineteenth Legislature

364.025. Universal service

(1) For the purposes of this section, the term "universal service" means an evolving level of access to telecommunications services that, taking into account advances in technologies, services, and market demand for essential services, the commission determines should be provided at just, reasonable, and affordable rates to customers, including those in rural, economically disadvantaged, and high-cost areas. It is the intent of the Legislature that universal service objectives be maintained after the local exchange market is opened to competitively provided services. It is also the intent of the Legislature that during this transition period the ubiquitous nature of the local exchange telecommunications companies be used to satisfy these objectives. Until January 1, 2009, each local exchange telecommunications company shall be required to furnish basic local exchange telecommunications service within a reasonable time period to any person requesting such service within the company's service territory.

(2) The Legislature finds that each telecommunications company should contribute its fair share to the support of the universal service objectives and carrier-of-last-resort obligations. For a transitional period not to exceed January 1, 2009, the interim mechanism for maintaining universal service objectives and funding carrier-of-last-resort obligations shall be established by the commission, pending the implementation of a permanent mechanism. The interim mechanism shall be applied in a manner that ensures that each competitive local exchange telecommunications company contributes its fair share to the support of universal service and carrier-of-last-resort obligations. The interim mechanism applied to each competitive local exchange telecommunications company shall reflect a fair share of the local exchange telecommunications company's recovery of investments made in fulfilling its carrier-of-last-resort obligations, and the maintenance of universal service objectives. The commission shall ensure that the interim mechanism does not impede the development of residential consumer choice or create an unreasonable barrier to competition. In reaching its determination, the commission shall not inquire into or consider any factor that is inconsistent with s. 364.051(1)(c). The costs and expenses of any government program or project required in part II of this chapter shall not be recovered under this section.

*43905 (3) If any party, prior to January 1, 2009, believes that circumstances have changed substantially to warrant a change in the interim mechanism, that party may petition the commission for a change, but the commission shall grant such petition only after an opportunity for a hearing and a compelling showing of changed circumstances, including that the provider's customer population includes as many residential as business customers. The commission shall act on any such petition within 120 days.

(4)(a) Prior to January 1, 2009, the Legislature shall establish a permanent universal service mechanism upon the effective date of which any interim recovery mechanism for universal service objectives or carrier-of-last-resort obligations imposed on competitive local exchange telecommunications companies shall terminate.

(b) To assist the Legislature in establishing a permanent universal service mechanism, the commission, by February 15, 1999, shall

determine and report to the President of the Senate and the Speaker of the House of Representatives the total forward-looking cost, based upon the most recent commercially available technology and equipment and generally accepted design and placement principles, of providing basic local telecommunications service on a basis no greater than a wire center basis using a cost proxy model to be selected by the commission after notice and opportunity for hearing.

(c) In determining the cost of providing basic local telecommunications service for small local exchange telecommunications companies, which serve less than 100,000 access lines, the commission shall not be required to use the cost proxy model selected pursuant to paragraph (b) until a mechanism is implemented by the Federal Government for small companies, but no sooner than January 1, 2001. The commission shall calculate a small local exchange telecommunications company's cost of providing basic local telecommunications services based on one of the following options:

1. A different proxy model; or

2. A fully distributed allocation of embedded costs, identifying high-cost areas within the local exchange area the company serves and including all embedded investments and expenses incurred by the company in the provision of universal service. Such calculations may be made using fully distributed costs consistent with 47 C.F.R. parts 32, 36, and 64. The geographic basis for the calculations shall be no smaller than a census block group.

(5) After January 1, 2001, a competitive local exchange telecommunications company may petition the commission to become the universal service provider and carrier of last resort in areas requested to be served by that competitive local exchange telecommunications company. Upon petition of a competitive local exchange telecommunications company, the commission shall have 120 days to vote on granting in whole or in part or denying the petition of the competitive local exchange company. The commission may establish the competitive local exchange telecommunications company as the universal service provider and carrier of last resort, provided that the commission first determines that the competitive local exchange telecommunications company will provide high-quality, reliable service. In the order establishing the competitive local exchange telecommunications company as the universal service provider and carrier of last resort, the commission shall set the period of time in which such company must meet those objectives and obligations.
***43906**

CREDIT(S)

Added by Laws 1995, c. 95-403, § 7, eff. Jan. 1, 1996. Amended by Laws 1997, c. 97-100, § 18, eff. July 1, 1997; Laws 1998, c. 98-277, § 1, eff. May 28, 1998; Laws 1999, c. 99-354, § 1, eff. June 11, 1999; Laws 2000, c. 2000-289, § 1, eff. June 14, 2000; Laws 2000, c. 2000-334, § 2, eff. June 20, 2000; Laws 2003, c. 2003-32, § 4, eff. May 23, 2003.

<General Materials (GM) - References, Annotations, or Tables>

REFERENCES

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Telecommunications ⚿267.
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C.J.S. Telegraphs, Telephones, Radio, and Television § 267.

RESEARCH REFERENCES

Encyclopedias

FL Jur. 2d Telecommunications § 13, Universal Service.

ANNOTATIONS

NOTES OF DECISIONS

Operator costs 1

1. Operator costs

Incumbent local exchange carrier (ILEC) which was statutorily precluded from offering local service without operators to consumers was not required to eliminate its cost of operator services from wholesale rate it charged

competitor local exchange carrier (CLEC), which sought to obtain local service from ILEC for resale but wanted to provide its own operator services. AT&T Communications of Southern States, Inc. v. BellSouth Telecommunications, Inc., C.A.11 (Fla.)2001, 268 F.3d 1294. Telecommunications ⚷267

Current through Chapter 484 and H.J.R. No. 1and S.J.R. No. 2394 (End) of 2004 Special "A" Session of the Nineteenth Legislature

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-7)
Cost of Basic Service Order

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-7

In re: *Determination of the cost of basic local telecommunications service, pursuant to Section 364.025, Florida Statues*, Docket No. 980696-TP, Order No. PSC-99-0068-FOF-TP (excerpts).

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 15
Company/ Alltel
Witness: David C. Blessing (DCB-7)
Date: 12/01/05

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Determination of the cost of basic local telecommunications service, pursuant to Section 364.025, Florida Statutes.	DOCKET NO. 980696-TP ORDER NO. PSC-99-0068-FOF-TP ISSUED: January 7, 1999

The following Commissioners participated in the disposition of this matter:

JULIA L. JOHNSON, Chairman
J. TERRY DEASON
SUSAN F. CLARK
JOE GARCIA
E. LEON JACOBS, JR.

APPEARANCES:

LAURA GALLAGHER, ESQUIRE, Florida Cable Telecommunications Association, Inc., 310 North Monroe Street, Tallahassee, Florida 32301.
On behalf of Florida Cable Telecommunications Association.

TRACY HATCH, ESQUIRE, AT&T Communications of the Southern States, Inc., 101 North Monroe Street, Suite 700, Tallahassee, Florida 32301-1549; JIM LAMOUREUX, ESQUIRE, and GENE COKER, ESQUIRE, 1200 Peachtree Street N.E., Room 8150, Atlanta, Georgia 30309, and STEPHEN RUSCUS, ESQUIRE, McKenna & Cuneo, 1900 "K" Street, Washington, D.C. 20006.
On behalf of AT&T Communications of the Southern States, Inc.

PHILIP CARVER, ESQUIRE, MARY KEYER, ESQUIRE, and NANCY WHITE, ESQUIRE, 150 South Monroe Street, Suite 400, Tallahassee, Florida 32301.
On behalf of BellSouth Telecommunications, Inc.

VI. COST PROXY MODEL RESULTS

A. LECS With Greater Than 100,000 Access Lines

In the first part of this section, we address which local exchange companies must use the cost proxy model that we have selected in this proceeding, the BCPM 3.1. The answer is quite simple. Sections 364.025(4)(b) and (c), Florida Statutes, clearly indicate that all companies with 100,000 or greater access lines must use the cost proxy model selected. Those companies with fewer than 100,000 access lines may use the cost proxy model at our discretion. The parties unanimously concur that BellSouth, GTEFL, and Sprint are the only three local exchange companies that meet this criterion and must use the cost proxy model. Therefore, we find that BellSouth, GTEFL, and Sprint must use the cost proxy model selected in this proceeding.

In Section III of this Order, we ordered the BCPM sponsors to make certain structural changes to the model, primarily associated with minimizing the gap between the amount of facilities built by the plant versus the required amount indicated by a minimum spanning tree (MST) analysis. In addition, we required that the sponsors submit a revised version of the model (on CD-ROM), and model runs reflecting our approved inputs with the revised MST analyses. Further, in Section V of this Order, we required that certain adjustments be made to some input values filed in this proceeding (notably, the removal of inflation/deflation values embedded in some of BellSouth's inputs). Accordingly, given the compressed schedule associated with preparing the report to the Legislature that reflects our decisions in this proceeding, we require that BCPM sponsors submit these compliance filings no later than January 12, 1999.

Due to the required structural changes to the model, we are unable to provide final cost proxy model results. Appendix B to this Order shall be filed with the report to the Legislature and will contain the final cost proxy model results.

B. LECS With 100,000 Or Fewer Access Lines

Methodology

ALLTEL witness Curry sponsored the universal service embedded cost methodology used by all of the small local exchange companies

(small LECs) in this proceeding. These companies include ALLTEL Florida (ALLTEL), Vista-United Telecommunications (Vista-United), Northeast Florida Telephone Company (Northeast), Frontier Communications of the South, Inc. (Frontier), TDS Telecom/Quincy (TDS), GTC Inc. (GTC), and ITS Telecommunications Systems, Inc. (ITS) Witness Curry states that all of the small LECs used Part 36 jurisdictional separations procedures in developing the embedded costs for each of the companies, and he believes that the small LEC methodology satisfies the legislative requirements for embedded studies. Witness Curry adds that rural LECs are to continue to calculate their interstate Universal Service Costs using embedded costs until at least January 1, 2001.

As witness Curry describes in his direct testimony, all of the small LECs used an 11.25% return on net investment. Modifications were also made by the small LECs to the Part 36 universal cost study including assigning 100% of non-traffic sensitive plant to the state jurisdiction along with non-traffic sensitive local switching equipment. The small LEC methodology excluded private line costs as well as all expenses, investments and reserves associated with pay telephones.

Witness Curry states that the cost proxy models are not appropriate for the small rural LECs, because the proxy models are not representative of the small company costs. He states that because one cannot re-create the network with new plant in reality, higher costs for new technology in the proxy models versus the lower costs of older technology in an embedded network causes the proxy model results to be higher. Witness Curry explains that while electronic costs are declining, copper and the installation costs are increasing. He also argues that when one compares loop plant that averages twenty years old to new plant, the proxy models with new plant are going to be significantly higher.

Witness Curry's embedded cost methodology adopted by the small LECs generally assigns the same types of costs to universal service as do the proxy models used by the larger LECs. When witness Curry was asked why 100% of the non-traffic sensitive plant was assigned to the state jurisdiction, he responded as follows:

> If you look at the proxy models or any other of these cost models, that's the way they're assigning costs in there. What we try to do is parallel the embedded cost of service study

> with the proxy model methodology, and that's what that is right there.

Witness Curry described the similarities between his embedded cost methodology and the cost proxy models in the following manner:

> Well, basically the proxy models, again, they take all the non-traffic sensitive costs and assign it to the cost of universal service. In addition, traffic-sensitive costs associated with local switching are assigned by a factor that equates to local usage through the end-office switch, and that's basically the cost drivers in the embedded cost study also.

Adjustments

Although we will not require major adjustments to the general methodology proposed by the small LECs, we will require numerous adjustments to the monthly cost per access line amounts filed by the companies. Each company states that its calculations are based on the same methodology. There were several differences, however, between the companies. ALLTEL, GTC, ITS and Northeast included Allowance For Funds Used During Construction (AFUDC) in the calculations and the other small LECs did not. ALLTEL, ITS, TDS and Vista included account 7370 Special Charges while the others did not. Account 7370 includes costs such as lobbying and contributions. We have removed AFUDC and account 7370 from the revenue requirements calculation, which is consistent with our normal method of calculating revenue requirements. Only Northeast included uncollectible revenue. Uncollectible revenues were added for the other companies. None of the companies included the amount of gross receipts tax which corresponds to the revenue of the company. Therefore, we recalculated gross receipts tax for all companies.

Some of the adjustments have been made to make the calculation of costs consistent with our usual method of calculating revenue requirements. For example, the amount of working capital was adjusted for each company to the amount computed using the balance sheet method. This resulted in increases for GTC and ITS and decreases for ALLTEL, Northeast and TDS to working capital.

Company-specific adjustments were necessary for several of the companies. Frontier's filed amounts were for total company and had to be adjusted to reflect local amounts only. We corrected the property taxes and also included interest expense in Frontier's amounts. ITS Telecommunication's Systems, Inc.'s ratebase and expenses were reduced to reflect Contributions in Aid of Construction, which was not included by the company. Northeast's deferred taxes were reduced to properly match the amounts on the company's balance sheet.

For the small LECs, the average for corporate operations expense is $6.88 per line per month. For Northeast and ITS, the amounts are $15.31 and $30.74 per line per month, respectively. According to witness Curry, the Federal Communications Commission (FCC) limits the amount of corporate expense per access line which a company is allowed for federal high cost fund purposes. In Florida, only ITS's and Northeast's corporate expenses exceed the limit. We have made an adjustment to limit the amount of corporate expenses included in the calculations of costs for ITS and Northeast, based on the FCC's methodology. This adjustment results in a reduction of the monthly local costs of $.62 and $3.56 for Northeast and ITS, respectively. Even after making this adjustment, Northeast's and ITS's corporate expenses are well above the statewide average for small LECs. Northeast's and ITS's embedded costs per access line shown on Table VI-2 exceed the results of the BCPM model due to the high amount of corporate expenses. The FCC limits corporate expenses, since they are often discretionary and subject to management control. We agree with the FCC and believe that it is reasonable to limit the amount of corporate expense allowed for calculating the amount of high cost support which a company may need for intrastate purposes. For purposes of this Order, we are limiting corporate expenses based on the FCC's methodology. However, if an intrastate universal service fund is implemented, we recommend that a further review of the allowable amount of corporate expenses be conducted.

In 1996, the operations of three companies (St. Joseph Telephone & Telegraph Company, Gulf Telephone Company and The Florala Telephone Company, Inc.) were purchased and merged into GTC, Inc. (GTC). For purposes of this proceeding, the three former companies have been reported separately. After the purchase, the net plant (ratebase) recorded on the books of GTC was increased to reflect a higher value. GTC has not provided any justification to increase its ratebase above the original cost of the assets.

Therefore, we have adjusted the ratebases for the GTC divisions to original cost.

Capital Structure and Return on Equity

As discussed earlier, all of the small LECs used an overall cost of capital of 11.25% for purposes of this proceeding. No witnesses appearing on behalf of the small LECs offered any testimony supporting the capital structure, cost of debt, or cost of equity underlying the assumed 11.25% rate of return. Moreover, there was no evidence presented to support the reasonableness of the 11.25% return other than the fact that this was the default rate established by the FCC in September 1990.

In FCC Report No. CC 98-33 (Docket No. 98-166) issued October 5, 1998, the FCC announced that it was seeking comment on how the formula for calculating the authorized rate of return for local telephone companies should be modified to reflect current market conditions. Since the time of the FCC's determination of the 11.25% rate of return, 30-year Treasury bond rates have fallen 380 basis points from an average of 8.99% in September 1990 to an average of 5.19% in September 1998. AT&T/MCI witness Hirshleifer testified that given the significant decline in capital costs as indicated by the drop in yields on 30-year Treasury bonds, there is no evidence to support 11.25% as the true cost of capital for the provision of universal service.

To be consistent with our use of the embedded cost studies filed by the small LECs for purposes of determining the cost of providing local service, we have used the company-specific debt and equity amounts and embedded cost of debt in determining the appropriate cost of capital for each of these companies. The one exception is the determination of the return on equity (ROE). The estimation of an appropriate ROE is the one input that is the same regardless of whether the return is used in an embedded cost study or a forward-looking cost model.

Because no evidence was presented by the small LECs regarding an appropriate ROE for purposes of this proceeding, it is necessary to estimate a reasonable return. Based upon our analysis in Section V-B of this Order, we shall require an ROE of 11.50% be used for determining the overall cost of capital. Because the purpose of this proceeding is essentially to determine the cost of providing service to high cost areas, it is reasonable to assume

the cost of equity for this limited purpose would be the same for all efficient providers of telecommunications service.

Rural Telephone Bank stock was removed from the rate base and included as part of the capital structure. We used the company-specific debt and equity amounts, embedded cost of debt, and an ROE of 11.50% for determining the appropriate cost of capital for each company. The one exception was the determination of the cost of capital for Vista-United. Because Vista-United filed a capital structure comprised of 100% equity, it was necessary to use a hypothetical capital structure to determine the appropriate cost of capital for an efficient provider of universal service. Consistent with our determination in Section V-B of this Order, we shall require a relative capital structure of 60% equity and 40% debt, a cost of debt of 6.50%, and an ROE of 11.50% to determine Vista-United's cost of capital. The return resulting from these assumptions represents an appropriate cost of capital for an efficient provider of universal service.

Results

Table VI-1 shows the cost of basic local telecommunications service per access line per month as filed by the small LECs, the cost after our modifications as described above, and the cost based on BCPM defaults.

Table VI-1:
Comparison of Results: Embedded Costs vs. Cost Proxy Model

Company	Embedded Cost Per Access Line		BCPM Defaults
	Per Company	*Per Commission*	
ALLTEL	$ 41.97	$ 41.32	$ 66.37
Frontier	$ 56.13	$ 44.30	$ 77.96
GTC - Florala	$ 49.81	$ 42.18	$ 96.34
GTC - Gulf	$ 38.07	$ 33.43	$ 64.69
GTC - St. Joe	$ 44.16	$ 38.99	$ 66.85
ITS	$ 71.00	$ 65.50	$ 51.76
Northeast	$ 65.39	$ 55.43	$ 55.39

COMPANY	EMBEDDED COST PER ACCESS LINE		BCPM DEFAULTS
	Per Company	*Per Commission*	
Quincy	$ 44.40	$ 42.81	$ 50.82
Vista-United	$ 66.54	$ 63.34	$ 31.36

The amounts shown above in the column labeled "per Commission" are the results of using the small LEC methodology and our adjustments. Those amounts should be reported as the 1997 embedded costs of basic local telecommunications service using the small LEC sponsored methodology. The amounts are based on 1997 costs. Costs change from year to year, and the general trend has been a decline in costs. Therefore, these costs should be updated and reviewed before any use is made of the results.

The embedded cost methodology proposed by the small LECs and adjusted by us generally produces a lower cost for basic local service than the outputs of the models. We believe that it is appropriate to use the lower costs. It does not seem reasonable to provide the small LECs with more financial support than they need based on embedded costs. Providing the companies with more support than needed will not necessarily increase competition in the high cost areas. If the embedded costs of the incumbent LEC are lower than the costs of a new entrant, then the incumbent LEC has a cost advantage and will be able to underprice the new entrant and likely keep out competition. Providing the same amount of support per access line to both the incumbent LEC and the new entrant does not help the new entrant overcome any cost advantage of the incumbent LEC.

The amounts do not represent just the cost of basic local telecommunications service. The small LEC methodology does not separate out the costs of certain services such as call waiting and call forwarding. It also does not remove the costs for other services such as nonrecurring services or operator services, which are charged for separately. We nevertheless believe the small LEC methodology is appropriate, and we are not recommending a different definition of basic local telecommunications service than found in Section II of this Order. However, the small LEC methodology does generally produce lower costs than the proxy models.

Conclusion

Section 364.025(4)(c) states as follows:

> (c) In determining the cost of providing basic local telecommunications service for small local exchange telecommunications companies, which serve less than 100,000 access lines, the commission shall not be required to use the cost proxy model selected pursuant to paragraph (b) until a mechanism is implemented by the Federal Government for small companies, but no sooner than January 1, 2001. The commission shall calculate a small local exchange telecommunications company's cost of providing basic local telecommunications services based on one of the following options:
>
> 1. A different proxy model; or
>
> 2. A fully distributed allocation of embedded costs, identifying high-cost areas within the local exchange area the company serves and including all embedded investments and expenses incurred by the company in the provision of universal service. Such calculations may be made using fully distributed costs consistent with 47 C.F.R., sections 32, 36, and 64. The geographic basis for the calculations shall be no smaller than a census block group.

Therefore, for the purpose of fulfilling our statutory obligation under Section 364.025(4)(c), we will choose between a fully allocated, embedded cost study or a cost proxy model different than the one selected for the three LECS with 100,000 or greater access lines. Upon consideration, we shall determine the cost of basic local telecommunications service for each of the Florida LECs that serve fewer than 100,000 access lines using the embedded cost methodology proposed by witness Curry, with the modifications discussed above. The resulting costs are shown below in Table VI-2:

Table VI-2:

Company	1997 Costs per Access Line per Month
ALLTEL	$41.32
Frontier	$44.30
GTC-Florala	$42.18
GTC-Gulf	$33.43
GTC-St. Joe	$38.99
ITS	$65.50
Northeast	$55.43
Quincy	$42.81
Vista-United	$63.34

As stated above, we will not use a different cost proxy model as Section 364.025(4)(c), Florida Statutes, permits. We will, however, provide the results for the small LECs using the BCPM 3.1 cost proxy model with the Commission-ordered input values. There was concern raised regarding the use of an embedded cost methodology to determine forward-looking costs for universal service for any local telecommunications service provider, whether large or small. Therefore, we will provide to the Legislature the results for the small LECs using the BCPM with its Commission-ordered input values in Appendix B with our report.

VII. CONCLUSION

We have conducted this proceeding under Chapter 120, Florida Statutes, and the directives of Section 364.025(4)(b) and (c), Florida Statutes. We have based our decision on the evidentiary record before us, the briefs of the parties, and the advisory recommendation of our staff. We believe that our decision is consistent with legislative mandate. This Order will be attached

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-8)
Depreciation Order

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-8

Order No. PSC-96-0680-FOF-TL; Before The Florida Public Service Commission, In Re: Request for Approval of 1995 Depreciation Study by ALLTEL Florida, Inc.; Docket No. 950887-TL; Issued: May 23, 1996.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 16
Company/ Alltel
Witness: David C. Blessing (DCB-8)
Date: 12/01/05

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Request for approval of 1995 Depreciation Study by ALLTEL Florida, Inc.	)	DOCKET NO. 950887-TL ORDER NO. PSC-96-0680-FOF-TL ISSUED: May 23, 1996

The following Commissioners participated in the disposition of this matter:

SUSAN F. CLARK, Chairman
J. TERRY DEASON
JOE GARCIA
JULIA L. JOHNSON
DIANE K. KIESLING

NOTICE OF PROPOSED AGENCY ACTION
ORDER REVISING DEPRECIATION
RATES AND RECOVERY SCHEDULES

BY THE COMMISSION:

NOTICE IS HEREBY GIVEN by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

Background

ALLTEL Florida, Inc.'s (ALLTEL's) current depreciation rates and recovery schedules have been effective since January 1, 1993. Since then, ALLTEL's planning and net plant balances have changed. These changes require revision of the currently approved depreciation rates and recovery schedules.

Reserve Allocations

ALLTEL has discovered that the reserve for each of its amortizable general support asset accounts is misstated. Although these accounts were established correctly in 1988, an error was made in determining the annual expenses. ALLTEL reviewed each of these accounts and has revised its data to correct the reserve levels. As a result, there is a reserve surplus of $137,598. ALLTEL proposes to allocate this amount to reduce the reserve deficit in Metallic Buried Cable. We believe that its proposal is appropriate. The approved allocations are shown on Attachment A.

Recovery Schedules

ALLTEL's last depreciation study allowed for the recovery of six digital switches expected to retire between 1993 and 1995. As of January 1996, ALLTEL had only retired the Alachua and Florahome switches. ALLTEL projects that it will retire the Dowling Park switch by year-end 1997. ALLTEL proposes extending the recovery period of the existing schedule through December 31, 1999. Although it does not have firm retirement dates for three of these switches, ALLTEL expects to retire them within five years.

Our practice is to allow recovery of investments scheduled to be retired within three years. In this instance, only the Dowling Park switch falls into this category. Accordingly, we find that only the net investments associated with the Dowling Park switch should be recovered.

A review of the existing recovery schedule indicates that expenses were not adjusted to reflect changes in activity. As a result, Dowling Park has an unrecovered investment of $28,931 as of January 1, 1996. We approve a two-year recovery period, since that matches the projected remaining life of the switch. The recovery amount and monthly expenses for this recovery schedule are estimates based on current projections. Actual incurred net salvage may differ from that projected. If the remaining life or net salvage value change, the recovery schedule expenses should be revised to reflect the difference.

ALLTEL retired the Florahome switch at year-end 1995, leaving a shortfall of $77,095 to accumulated reserve. This shortfall should be recovered during 1996.

Subsequent to filing its study, ALLTEL undertook to identify and inventory the equipment booked to Account No. 2311.2, Station Apparatus - Network Terminal Equipment. It found that all equipment associated with this investment had been retired. In order to correct its accounts, ALLTEL should record an inventory adjustment for 1996. This will result in a reserve shortfall of approximately $4,000, which we believe should be recovered in 1996.

The approved recovery schedules are shown on Attachment B. These schedules allow for the recovery of unrecovered investments resulting from a digital switch retirement in 1995, a planned switch retirement in 1997, and an inventory adjustment.

Appropriate Lives, Net Salvages, Reserves, and Depreciation Rates Per Account

In general, we agree with ALLTEL's depreciation study. One minor difference exists regarding analog circuit: ALLTEL rounded the reserve to one decimal place; we believe that the reserve should be rounded to two decimal places.

The major change to expense derives from alterations in ALLTEL's projections for the retirement of digital switching equipment. As discussed above, ALLTEL projected that it would retire six switches between 1993 and 1995. It has already retired two of the switches, and intends to retire a third in 1997. Retirement dates for the remaining three switches are uncertain; however, ALLTEL expects to retire them after 1997. We believe that these investments should be transferred to the digital switching account. The approved remaining lives reflect the inclusion of these investments.

Currently, analog circuit equipment is divided among two subaccounts. Digital circuit equipment is divided among four. ALLTEL proposes to combine these subaccounts into two single accounts: analog and digital.

ALLTEL's investment in analog circuit equipment is steadily declining. Beginning in 1990, the average annual retirements exceeded $250,000. In contrast, additions for each of the last three years were less than $50,000. Some analog equipment may remain in service well into the next century. However, the total investment in analog circuit equipment will continue to decline. As this equipment is phased out, the distinctions between the different types will diminish.

ALLTEL's investment in digital circuit equipment continues to grow. However, the newer digital switches have digital circuit functions incorporated into their operational capability. Accordingly, future growth in digital circuits may slow as new switches are installed. Due to these circumstances, we agree with ALLTEL's proposal to maintain analog and digital circuits in separate single accounts.

The approved lives, net salvages, reserves, and resulting depreciation rates are depicted on Attachment C.

Amortization of Investment Tax Credits (ITCs) and Flowback of Excess Deferred Income taxes

Section 46(f)(6), Internal Revenue Code, states that the amortization of ITCs should be determined by the period of time used in computing depreciation expense for purposes of reflecting regulated operating results of the utility. Since we have approved changes in depreciation rates, it is also necessary to revise the amortization of ITCs.

In addition, Section 203(e) of the Tax Reform Act of 1986 (TRA) prohibits rapid write-back of protected (depreciation related) deferred taxes. Moreover, under Rule 25-14.013, Florida Administrative Code, Accounting for Deferred Income Taxes under SFAS 109, excess deferred income taxes associated with temporary differences may not be reversed any faster than allowed under Section 203(e) of the TRA, absent good cause shown.

Accordingly, the current amortization of ITCs and the flowback of excess deferred income taxes should be revised to reflect the approved depreciation rates and recovery schedules. The flowback of excess deferred taxes should also be revised to comply with Section 203(e) of the TRA and Rule 25-14.013, Florida Administrative Code. ALLTEL should file detailed calculations of the revised ITC amortization and flowback of excess deferred taxes at the time it files its December 1997 surveillance report.

It is, therefore,

ORDERED by the Florida Public Service Commission that ALLTEL Florida, Inc.'s 1995 depreciation study is approved, as modified in the body of this Order, effective January 1, 1996. It is further

ORDERED that the appropriate reserve allocations for the amortizable general support asset accounts are those depicted on Attachment A to this Order. It is further

ORDERED that the appropriate schedules for the recovery of unrecovered investments associated with digital switch retirements and an inventory adjustment are those depicted on Attachment B to this Order. It is further

ORDERED that the appropriate lives, net salvages, reserves, and resulting depreciation rates are those depicted on Attachment C to this Order. It is further

ORDERED that ALLTEL Florida, Inc. shall revise the current amortization of investment tax credits and the flowback of excess deferred income taxes to reflect the approved depreciation rates and recovery schedules. It is further

ORDERED that ALLTEL Florida, Inc. shall revise the flowback of excess deferred taxes to comply with Section 203(e) of the Tax Reform Act of 1986 and Rule 25-14.013, Florida Administrative Code. It is further

ORDERED that ALLTEL Florida, Inc. shall file detailed calculations of the revised investment tax credit amortization and flowback of excess deferred taxes at the time it files its December 1997 surveillance report. It is further

ORDERED that, unless a person whose interests are substantially affected by the action proposed herein files a petition in the form and by the date specified in the Notice of Further Proceedings or Judicial Review, this Order shall become final and this docket shall be closed on the following date.

By ORDER of the Florida Public Service Commission, this 23rd day of May, 1996.

/s/ Blanca S. Bayó

BLANCA S. BAYÓ, Director
Division of Records and Reporting

This is a facsimile copy. A signed copy of the order may be obtained by calling 1-904-413-6770.

(S E A L)

SOME (OR ALL) ATTACHMENT PAGES ARE NOT ON ELECTRONIC DOCUMENT.

RJP

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

The action proposed herein is preliminary in nature and will not become effective or final, except as provided by Rule 25-22.029, Florida Administrative Code. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, as provided by Rule 25-22.029(4), Florida Administrative Code, in the form provided by Rule 25-22.036(7)(a) and (f), Florida Administrative Code. This petition must be received by the Director, Division of Records and Reporting, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on June 13, 1996.

In the absence of such a petition, this order shall become effective on the day subsequent to the above date as provided by Rule 25-22.029(6), Florida Administrative Code.

Any objection or protest filed in this docket before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

If this order becomes final and effective on the date described above, any party substantially affected may request judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or by the First District Court of Appeal in the case of a water or wastewater utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days of the effective date of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-9)
Universal Residential Telephone
Service

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-9

See *Handbook of Telecommunications Economics,* Amsterdam: Elsevier Science, 2001; C*hapter 10,* UNIVERSAL RESIDENTIAL TELEPHONE SERVICE, Michael H. Riordan, *Columbia University,* August 29, 2001.

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Chapter 10

UNIVERSAL RESIDENTIAL TELEPHONE SERVICE

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1. INTRODUCTION

Universal service is a chameleon-like phrase. It refers generally to widespread access to and affordability of telecommunications services, but it takes on different meanings depending on the time and the place, and the particular policy debate. AT&T president Theodore Vail coined the phrase in 1907 to refer to the company's goal of achieving an integrated centrally-controlled telephone network, but today in the United States and other developed countries the phrase essentially means high household telephone penetration (Mueller 1997). In less developed countries, where telephone penetration is low, the phrase more likely means good access to pay telephones (Hudson 1995). Recent universal service initiatives in the United States subsidize high-speed Internet access for schools, libraries, and health centers (Hausman 1998). And in the blue sky of the future, universal service may come to mean high residential penetration of broadband Internet access.

Since this landscape is too big to cover succinctly, this chapter focuses on the "paradigm problem" of advancing and maintaining universal service for basic residential telephone services in the United States in the late 20th century. The focus seems appropriate, if for no other reason than because this is where academic economic research has concentrated its attention. Moreover, some of the issues addressed by the chapter have wider applicability. For example, there is a "deadweight loss" of economic efficiency from taxing regular telephone service in order to subsidize advanced services (Hausman 1998). The chapter makes some international comparisons, and mentions a few emerging issues, but the reader is forewarned not to expect too much on these fronts.

Universal residential telephone service is an important and complex policy issue because large amounts of consumer welfare and corporate profits are at stake in the design of regulatory policies in the pursuit of universal service (Hausman 1998), and because important noneconomic values, like political democracy and social cohesion, are prominent in the policy debates. This volatile mix of elements makes for highly charged political debates on universal service policies, often with the Federal Communications Commission (FCC) at the center.[2] Economic arguments matter in these debates, even when noneconomic values have great salience, making universal service a worthy policy problem for applied economic analysis. What are the economic determinants of telephone penetration? What are the economic arguments for and against universal service policies? What is the most efficient way to achieve universal service goals? How successful are actual universal policies at increasing telephone penetration? The purpose of this chapter is to assess the current state of economic knowledge about universal service, and to point out needs for further research. The chapter mainly restricts its attention to published economic research which presumably has been vetted by some form of peer review.

Section 254 of the 1996 Telecommunication Act directs the FCC and the states to adopt policies "for the preservation and advancement of universal service..." and defines universal service as "an evolving level of telecommunications services that the Commission shall establish periodically..." So far, the FCC has defined universal service essentially to encompass basic residential telephone services (Federal Communications Commission 2000). The language of the Act suggests that universal basic telephone service has been substantially but perhaps incompletely achieved in the United States. Figure 1 confirms this idea by showing that house-

[2]The FCC has various policies designed to promote universal service: subsidies for schools, libraries and rural health centers; support to carriers serving high cost areas; subsidies for low income consumers. See *http://www.fcc.gov/ccb/universal_service/* .

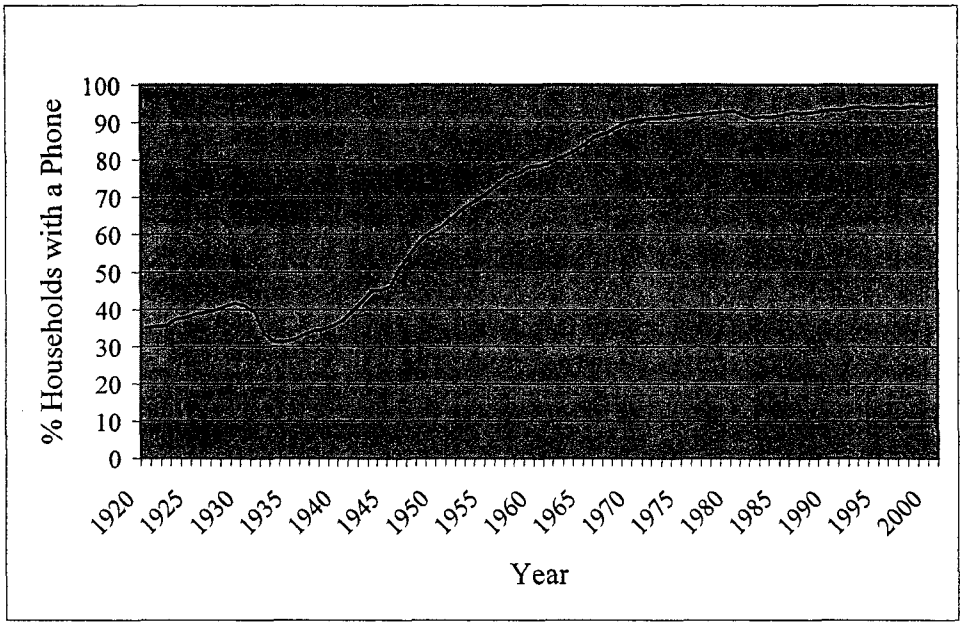

Figure 1: Telephone penetration in the United States, 1920-2000

hold telephone penetration has remained over 90% for more than a quarter century, and today approaches 95%.[3]

Behind this rosy aggregate picture, however, there is considerable regional and local variation. The map in Figure 2 shows that penetration rates varied significantly across the states in 1990, ranging from 87.4% in Mississippi to 97.9% in Maine.[4] The variance is even greater at the county level, where penetration ranges from 40.3% in Apache County, Arizona to 99.5% in Waukesha County, Wisconsin. Mueller and Schement (1996) find large variations in penetration rates among neighborhoods of a single city. At the census block level, penetration varies between zero and one hundred percent.

The United States has one of the highest household telephone penetration rates in the world. Still, some other developed countries enjoy a higher aggregate household penetration rate, e.g. Canada has maintained penetration over 98% through the 1990's. Moreover, while household telephone penetration has remained relatively flat in the U.S. in the 1990s, it has increased significantly elsewhere, e.g. in France, from 94% in 1990 to 98% in 1997 (International Telecommunications Union 1999). Thus, it appears that more could be done to advance universal residential telephone service in the United States. Questions for economists are "How

[3]This chart is constructed from various Census Bureau and FCC data sources, and contains linear approximations for some years to deal with missing and inconsistent data. Details of the construction are available from author upon request. See FCC, "Trends in Telephone Service," March 2000, Wash D.C. for a discussion of subscriber data.

[4]This is based on 1990 census data. See Dyer (1997) on regional variation in penetration rates in the United Kingdom.

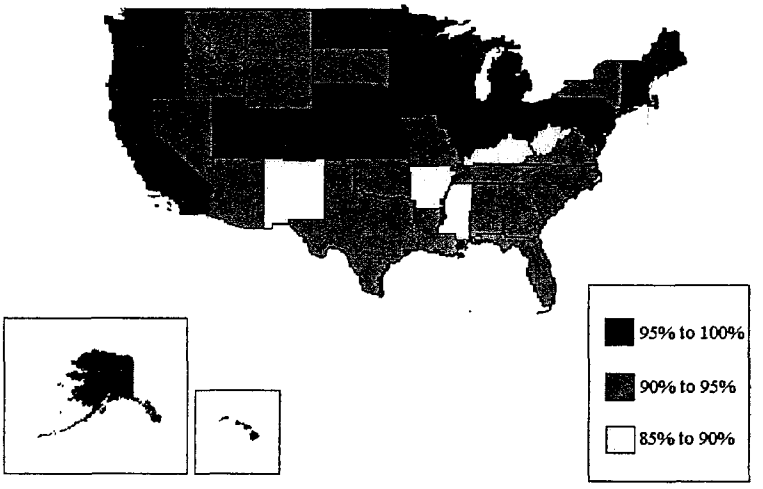

Figure 2: Telephone penetration by state, 1990

and at what cost?" and "Do the benefits outweigh the costs?"

The universal service problem for basic residential services has several dimensions, and the balance of the chapter is organized accordingly. Section II presents empirical evidence on the determinants of telephone penetration rates in the U.S. in 1990. The analysis shows that most of the variation in telephone penetration in the United States is explained by demography and climate. Cost proxies explain a statistically significant but quantitatively small fraction of the variation in penetration, and there is some slight evidence of local network externalities boosting penetration. While there remain significant differences between the states even after controlling for these factors, it appears that superior state regulatory policies can explain at most only a few percentage points of universal service performance. Section 3 reviews the normative economic theory of telecommunications pricing and its implications for universal service. Scale economies and especially network externalities provide theoretical rationales for departures from strict cost-based pricing, even though such departures sacrifice economic efficiency on some margins. Economic theory also demonstrates that optional service plans and low-income and high-cost universal service support potentially are valid methods of price discrimination in the pursuit of universal service goals. Section 4 reviews published empirical evidence on the performance of actual universal service policies. This limited evidence shows that low-income and high-cost subsidy policies are at best only marginally effective at advancing universal service. Section 5 summarizes and draws conclusions.

2. TELEPHONE PENETRATION IN THE UNITED STATES

Although approximately 95% of American households have a telephone, penetration varies significantly from place to place. Figure 2 illustrates different penetration rates in different states. Is this variation due to differences in population characteristics and other factors affecting the demand for telephone service, or differences in costs and regulatory policies affecting the price and availability of service? This section explores this question with a reduced form regression analysis. The purpose of the analysis is to identify and interpret some stylized facts, and to motivate the possibility that differences in state regulatory policies matter for the achievement of universal service goals.

Schement (1995) uses FCC and census data to describe the characteristics of households lacking telephones. The data show that the achievement of universal service varies across population groups. For example, the poor are less likely to have a telephone, as are blacks and Hispanics.[5] This kind of descriptive analysis is suggestive, but could be misleading, and leaves open important questions. For example: Are black households less likely to have a telephone because of different tastes, or because blacks tend to have lower incomes and telephone service is a normal good, or because blacks are discriminated against in the provision of telephone service? Or do blacks tend to live in states with less aggressive policies for promoting universal telephone service? Regression analysis is the appropriate tool for disentangling these effects.

A priori it seems plausible that demography might explain much of the geographic variations in penetration rates. Column (I) in Table 1 reports a regression equation explaining the telephone penetration rates of 1990 census block groups (CBGs) as a function of selected population demographics.[6] The definitions of variables and summary statistics are in an appendix. The numbers in parentheses are t-statistics, with the usual interpretation that a t-statistic above approximately 2.0 indicates statistical significance above a 95% confidence level. At given prices, shifts in the demographic composition of a group of consumers can be expected to shift the community demand for telephone service and change the penetration of service within the community. Nevertheless, the regression must be interpreted cautiously because it does not control for prices. The regression equation can be interpreted as capturing the pure effect of demand shifts on telephone penetration only if demand is price inelastic or if price differences are uncorrelated with population demographics. The results are broadly consistent with demand studies of penetration that do control directly for prices (Crandall and Waverman 2000; Taylor 1994; 2000).

Two things about the regression are striking. First, as expected from Schement's descriptive analysis, poverty is a major predictor of low CBG penetration. An income redistribution that would lower the poverty rate of a CBG by one percentage point, while holding its median income constant, would add 1/4 percentage point to telephone penetration. FCC Lifeline and LinkUp policies, discussed later in more detail, are designed to make telephone service more affordable to low income households. Second, Native American populations have much lower telephone penetration than other population groups, even after controlling for poverty, median income, education, and other demographics. It is not clear why this is the case. Do Native Americans place less value on telephone service, are they victims of discrimination, or is service

[5] Schement, Belinfante and Povich (1997) provide a more detailed analysis showing among other things that households receiving various forms of public assistance have lower penetration rates.

[6] All of the data for this regression equation are from the 1990 census. This is a weighted least squares regression which adjusts for the varying population sizes of CBGs. For a description of this procedure see Greene (1993).

more expensive or less available in areas occupied by Native Americans? Recently, the FCC targeted increased subsidies at federally-recognized Indian tribes, on grounds that the 47% average telephone penetration for this consumer group is partly due to expensive and unavailable service.[7] [8]

Other demographic characteristics of CBG populations influence penetration noticeably but less dramatically. The estimated effects are generally consistent with published descriptive analyses (Schement 1995; Schement, Belinfante, and Povich 1997) and demand studies (Crandall and Waverman 2000; Taylor 1994). People living in wealthier and more educated communities are much more likely to have a phone in the house. Asian populations are more likely, and black and Hispanic populations less likely than white households to have a phone. Elderly populations are marginally more likely to have telephones, as are households headed by women.

Column (II) adds variables designed to capture aspects of network externalities at the local level, i.e. the idea that the household demand for telephone service depends on who else has telephone service locally. As discussed in Section 3, network externalities are a potentially important theoretical rationale for universal service policies. Controlling for population density, telephone service increases with the size of the wire center population to which the CBG belongs, suggesting that demand shifts out with the reach of local service. This stylized fact supports the hypothesis of local network externalities associated with the number of people that can be reached by a local telephone call.[9] Adding an additional 10,000 people to the wire center increases penetration by about 1/5 percentage point.[10] Controlling for population size, CBG population density reduces penetration in this regression, suggesting that face-to-face communication is to some extent a substitute for telephone usage. In contrast, Crandall and Waverman (2000), discussed in Section 4,[11] find a small positive significant coefficient on population density, which they interpret as confirming a positive local network externality. Their demand analysis controlled for prices but did not include a variable for population size. Since population size and density are positively correlated, it is possible that their density variable is picking up two contrary effects, the local network externality effect, and a face-to-face communication effect (Taylor 1994 p. 236). Finally, it is noteworthy that including these variables increases the coefficient on Native American population share by several percentage points, suggesting that Native Americans tend to live in relatively unpopulated areas where the ability to make free local calls is not very valuable. Alternatively, the less negative coefficient could be an artifact of a restricted sample, which arises from the fact that wire center data are available only for

[7] See paragraph 20 of FCC (2000), *Twelfth Report and Order, Memorandum Report and Order, and Further Notice of Proposed Rule Making*, CC Docket No. 96-45, June.

[8] The policy appears to have had an earlier impact in Oklahoma, where $1 a month Lifeline service added 6,000 new subscribers in October 2000. See Kade L. Twist, "The Digital Divide in Oklahoma Indian Country," Benton Foundation (kade@benton.org).

[9] The estimated local network externality could be biased downward, because statet tariffs typically set lower prices where the number of lines is fewer. See National Association of Regulatory Commissioners (NARUC), *Bell Operating Companies Exchange Service Telephone Rates,* various years.

[10] Moreover, doubling population size and density has a significant positive effect on penetration, which is generally consistent with Perl's 1983 study, discussed in Section 3.3. Perl allowed for a non-linear effect of phone density, and found a significant positive effect for areas with between 1,000-2,500 phones per square mile, and a negative effect elsewhere (Taylor 1994).

[11] The other studies discussed in Section 4 also include density variables ("urban" and "rural") with consistent signs.

large local exchange carriers.

Table 1: Determinants of CBG telephone penetration[12]

	(I)	(II)	(III)	(IV)	(V)
% Poor	-0.267	-0.259	-0.258	-0.248	-0.246
	(179.4)	(129.4)	(117.5)	(114.2)	(113.0)
Median income	0.035	0.032	0.034	0.033	0.028
	(31.1)	(22.9)	(21.6)	(21.3)	(17.6)
% Female h.o.h.	0.023	0.025	.007	-0.028	-0.033
	(12.4)	(9.8)	(2.5)	(9.9)	(11.7)
% Senior	0.004	0.003	0.006	0.002	-0.002
	(2.8)	(1.7)	(2.8)	(1.2)	(1.2)
% Children	-0.017	-0.009	-0.018	-0.012	-0.011
	(10.6)	(4.7)	(7.7)	(5.2)	(5.2)
% High school	0.117	0.103	0.111	0.102	0.098
	(63.8)	(42.7)	(41.1)	(38.5)	(36.7)
% College	0.111	0.104	0.105	0.083	0.088
	(77.8)	(57.3)	(52.0)	(40.9)	(43.1)
% Black	-0.013	-0.021	-0.009	-0.009	-0.008
	(19.8)	(22.5)	(8.8)	(9.1)	(8.1)
% Hispanic	-0.010	-0.016	-0.018	0.026	0.022
	(12.7)	(15.3)	(12.4)	(18.3)	(14.9)
% Native	-0.333	-0.247	-0.230	-0.212	-0.212
	(119.1)	(55.2)	(43.8)	(40.9)	(39.0)
% Asian	0.075	0.056	0.077	0.065	0.055
	(47.0)	(28.9)	(25.5)	21.8)	(18.1)
% Other nonwhite	0.115	0.063	0.021	0.002	0.0010
	(5.5)	(2.11)	(0.6)	(0.5)	(2.6)
Pop. density		-0.026	-0.041	-0.40	-0.037
		(11.8)	(17.7)	(17.3)	(15.4)
W.c. population		0.020	0.019	0.012	0.013
		(37.9)	(29.6)	(18.2)	(20.2)
Loop length				-0.020	-0.016
				(19.7)	(15.5)
Average f.l. cost				-0.036	-0.033
				(41.8)	(38.0)
Controls for climate	No	No	Yes	Yes	Yes
State effects	No	No	No	No	Yes
R^2	0.537	0.531	0.551	0.564	0.580
ΔR^2					0.015
$S^2 = \frac{Var(\text{estimated state effects})}{Var(\text{telephone penetration})}$					0.017
# Observations	222,264	116,715	95,171	95,171	95,171

[12]The coefficients in this table represent the percentage point change in telephone penetration in response to a unit change in the independent variable. For example, in column (I) a 1 percentage point increase in *% Poor* is

Column (III) controls for climate (precipitation and temperature) to capture the possibility that people living in inhospitable climates may spend more time indoors and therefore may have a greater demand for telephone service as a means of communication. This is superficially plausible, as the map in Figure 2 shows that penetration rates tend to be higher in the colder northern states. Indeed, Crandall and Waverman (2000) find a significant positive coefficient on a "cold northern state" dummy in their demand analysis. It turns out that penetration is higher where weather is more extreme.[13]

Column (IV) adds FCC estimates of the monthly forward-looking cost of local service and average loop length into the mix. The argument for including these variables is that local service prices, and especially installation charges, are partly cost-based.[14] As predicted by a cost-based pricing hypothesis, higher average costs and longer loop lengths have negative effects on penetration. However, these effects are small quantitatively, as would be expected from the low price elasticities estimated by demand studies (Crandall and Waverman 2000; Taylor 1994). An extra $1 cost per month (about 3% of the mean CBG monthly cost) reduces penetration by three or four one hundreths of one percent. This implies an elasticity of about -0.01, which is roughly consistent with the demand studies under a cost-based pricing hypothesis.[15] The introduction of these supply side variables does not influence the other estimated coefficients in the regression model remarkably.

Finally, column (V) includes dummy variables for the state in which the CBG is located ("state effects"). The regression indicates significant differences between states even after controlling for demography and costs. An F-test of the joint significance of the state effects easily passes, indicating that these unexplained differences between states cannot be ignored. However, the state effects adds only 0.0153 to the R^2, and the variance share of the estimated state effects (S^2) is only 0.0174.[16] Thus the state effects appear to explain somewhere between

associated with a .267 percentage point decrease in penetration, while a $1,000 increase in *Median income* (which is defined in thousands of dollars) is associated with a 0.035 percentage point increase in penetration.

[13]The estimated quadratic specifications for climate effects in this and subsequent regressions are:

	(III)	(IV)	(V)
Temperature	-0.5	-0.5	-0.3
	(20.2)	(21.1)	(8.0)
Temperature^2	0.004	0.004	0.003
	(17.9)	(18.6)	(8.6)
Precipitation	-0.006	-0.02	-0.03
	(-0.678)	(2.7)	(2.3)
Precipitation^2	2.56E-04	3.48E-04	4.16E-04
	(5.6)	(7.7)	(6.4)
Temp.*Precip.	-6.77E-04	-4.74E-04	-3.15E-04
	(5.1)	(3.6)	(1.6)

[14]As mentioned before, state tariffs typically set lower residential service prices in wirecenters with fewer lines, suggesting that prices are inversely related to costs within individual states. The regression, however, already captures this by controlling for the number of households served by a wirecenter. The cost-variables possibly could be picking up cost-related price variation across the states. For data on across- and within-state variation in prices see the *Bell Operating Companies Exchange Service Telephone Rates*, published annually by NARUC until 1997.

[15]Admittedly, cost-based pricing of local service is a tenuous hypothesis. Rosston and Wimmer (2000b) estimate that a 10% increase in average costs is associated with only a 0.65% percent increase in average local revenues. Such a small degree of pass-through would imply a much higher price elasticity.

[16]S^2 is equal to the variance of the estimated state effects divided by the variance of telephone penetration. ΔR^2 is the increase in R^2 that results from adding the state effects. These two numbers can be interpreted as upper and

1 and 2 percent of the variance in CBG penetration rates. These differences could be due to other population characteristics that are correlated with state of residence, or could be due to differences in state policies. Inasmuch as the total variation of penetration rates explained by the regression is not much more than 50%, the former explanation seems reasonable. However, it is unclear *a priori* what appropriate demographic or locational variables might soak up the state effects. For example, including more detailed income data into the regressions reduces the explanatory contribution of the state effects only slightly. Although it is worth entertaining the possibility that differences in state regulatory policies matter, the most optimistic interpretation of the evidence is that differences in state policies can explain no more than a small fraction of the variance in penetration rates.[17]

The final regression reported in Table 1 can be interpreted as a reduced form of a structural model in which both penetration and prices are endogenous. The first equation of the structural model is a community demand curve explaining CBG penetration as a function of prices, population demographics (including proxies for network externalities), and climate, as in demand studies (Crandall and Waverman 2000; Taylor 1994). The other equations explain relevant prices as a function of access costs (proxied by loop length and forward-looking cost) and state dummies. The state dummies capture differences in state policies, e.g. different approaches to price regulation or universal service subsidies.[18] It is an open question whether price variation alone is sufficient to explain the state effects on penetration rates. Published research generally finds the price elasticity of demand for local service to be very low - on the order of -0.01 or -0.02 (Crandall and Waverman forthcoming; Taylor 1994). The price elasticity for low income households is significantly higher (Cain and MacDonald 1991), and the elasticity with respect to installation charges is significantly higher than for monthly service charges (Hausman, Tardiff, and Belinfante 1993; Crandall and Waverman 2000). Thus published economics research finds some weak support for universal service policies that target low income households and focus on lowering installation charges. These are the aims of the FCC's Lifeline and LinkUp programs, which are evaluated in Section 4.

An intriguing possibility is that some of the substantial unexplained geographic variation in penetration rates is due to "coordination failures" associated with network externalities.[19] The basic economics of the telephone network externality is that an individual subscriber benefits when other consumers connect to the network. This interdependence of decision-making creates a coordination problem for consumers: "If enough consumers connect, then so will I, but if others don't connect then neither will I." Thus, under the network externality hypothesis, consumer decision-making depends on consumers' expectations about other consumers' decision-making. The circular reasoning inherent in consumer coordination problems allows multiple equilibria, e.g. low level equilibria in which few people connect to the network, and high level equilibria in which many connect. Depending on nonlinearities in demand, there can be many equilibria for a given community, yielding a variety of different possible stable penetration levels. Thus, in theory, part of the geographic variation in penetration levels could be

lower bounds on the percentage of penetration variance explained by state effects. ΔR^2 is a lower bound because it implicitly attributes the explanatory power of the correlated components of the state effects to other variables. S^2 implicitly attributes the correlated components to the state effects.

[17]Sappington (2001) discusses the possibility that certain forms of incentive regulation may increase penetration rates.

[18]Differences in state universal service policies, which establish low-income subsidies, are discussed later.

[19]See Katz and Shapiro (1994) and Liebowitz and Margolis (2001) for discussions of network effects.

due to similar communities arriving at different equilibrium levels of penetration for historical reasons. The significance of network externalities for optimal telecommunications pricing is discussed further in Section 3 below.

The questions "Could the United States do more to promote universal service?" and "Do state policies matter for the achievement of universal service goals?" are important questions in the realm of positive economics. The corresponding normative questions are "What are optimal levels of telephone penetration and how do they vary with the characteristics of consumer groups?" and "What are the best ways to achieve universal service goals?" The next section surveys what economic theory has to say about these and related normative questions.

3. NORMATIVE ECONOMICS OF UNIVERSAL SERVICE

3.1 Price distortions

Perhaps the most fundamental advice of economists is that marginal cost pricing maximizes economic efficiency. As discussed in detail in following subsections, the standard marginal cost pricing prescription must be qualified in the presence of scale economies and network externalities. Nevertheless, economists generally agree that universal service policies that distort usage prices above incremental costs sacrifice economic efficiency.

In the United States, access regulation and universal service policies have helped keep the prices of long distance usage above marginal cost. For example, the price of an interLATA long distance call carried by AT&T reflects federally-mandated access charges paid to the local telephone companies who originate and terminate the call. Almost everyone recognizes that usage-based components of these access charges have been maintained above the marginal cost of access.[20] Hausman (1998) and Prieger (1998) interpret the resulting price distortion as a usage tax,[21] and use approximations from public finance theory to measure the resulting loss of economic efficiency.[22] The analysis below follows Hausman's logic closely, but measures efficiency losses exactly by assuming a constant elasticity of demand over the relevant range.

The basic issue is illustrated in Figure 3, adapted from Hausman (1998). The price per minute of long distance is p, the marginal cost is c, and usage is q. The usage tax is t. In the absence of the tax, consumers would pay $p - t$ per unit of long distance usage. The revenue raised from the tax is

$$R = tq \tag{3.1.1}$$

For an otherwise fixed market structure, the efficiency loss from the tax (called "deadweight loss" by economists) is measured by the sum of areas A and B. Area A represents the reduction in profits ("producer surplus") caused by the tax, assuming the tax is fully passed on to consumers.[23] Area B is the loss of consumer welfare ("consumer surplus") from the tax.

[20]The FCC is phasing out significantly above-cost usage-based access prices, replacing them with higher fixed charges and with revenue-based universal service "contributions" (i.e. revenue taxes).

[21]The FCC is moving from a system of usage taxes, implicit in access taxes, to a system of revenue taxes, implicit in the calculation of universal service contributions. Depending on market structure, revenue taxes may be more efficient than usage taxes.

[22]Hausman (2001) applies the methodology to the market for mobile telephony. See additional references therein.

[23]The assumption of full pass through is hard to defend theoretically in an oligopoly context, and exaggerates the

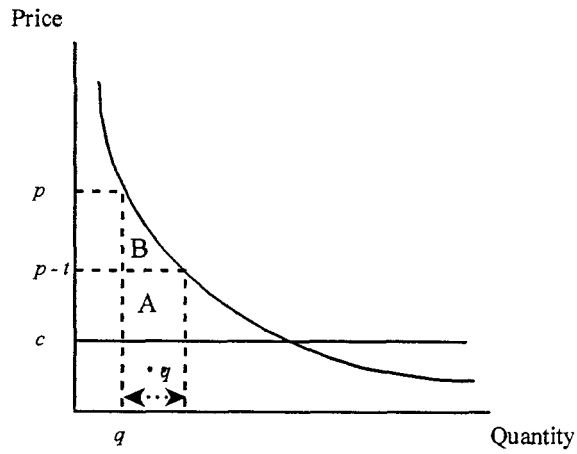

Figure 3: Consequences of an access tax

The deadweight loss per unit of tax revenue raised can be calculated as follows. Assume that the demand for long distance usage has a constant elasticity ε over the range of prices between $p - t$ and p. Then the reduction in quantity resulting from the usage tax is

$$\Delta q = \left[\left(1 - \frac{t}{p}\right)^{-\varepsilon} - 1\right] q \tag{3.1.2}$$

and loss of producer surplus (Area A) is

$$(p - t - c)\,\Delta q = (p - t - c)\left[\left(1 - \frac{t}{p}\right)^{-\varepsilon} - 1\right] q \tag{3.1.3}$$

The corresponding loss of consumer surplus (Area B) is calculated by integrating the demand curve between $p - t$ and p and subtracting tax revenue. This gives the formula

$$\left\{\frac{1}{1-\varepsilon}\left[p - (p - t)\left(1 - \frac{t}{p}\right)^{-\varepsilon}\right] - t\right\} q \tag{3.1.4}$$

The incremental loss of economic efficiency ("incremental deadweight loss") is equal to the sum of lost producer surplus and consumer surplus. Simple calculations yield an expression

efficiency loss if the tax partially extracts rents from oligopoly market power. Further analsysis of tax incidence and welfare consequences in the oligopoly case would clarify the debate on efficiency losses from usage price distortions.

for the incremental deadweight loss per unit of tax revenue: adding the expressions for lost producer and consumer surplus in equations (3.1.3) and (3.1.4), and dividing by the definition of tax revenue in equation (3.1.1), yields lost consumer and producer surplus per unit revenue raised by the tax; adding these up reveals that the average incremental deadweight loss equals

$$\left(\frac{p}{t} - 1 - \frac{c}{p}\frac{p}{t}\right)\left[\left(1 - \frac{t}{p}\right)^{-\varepsilon} - 1\right] + \left\{\frac{1}{1-\varepsilon}\left[\frac{p}{t} - \left(\frac{p}{t} - 1\right)\left(1 - \frac{t}{p}\right)^{-\varepsilon}\right] - 1\right\}.$$

The significance of this complicated-looking formula is that a calculation of the average incremental deadweight loss from the price distortion caused by the access tax requires three numbers: the demand elasticity ε, the tax rate $\frac{t}{p}$, and the cost share $\frac{c}{p}$. Some representative calculations are presented in Table 2. Each entry in the table has two numbers. The first (larger) number is the incremental deadweight loss per unit of tax revenue; the second number is the corresponding loss of consumer surplus alone. A consensus estimate of the price elasticity of long distance usage is about $\varepsilon = 0.7$ (Taylor 1994). For this elasticity, if the tax rate and cost shares are $\frac{t}{p} = 0.25$ and $\frac{c}{p} = 0.25$, the incremental deadweight loss is \$0.55 per unit of revenue,[24] of which \$0.10 is lost consumer surplus, the rest being lost profit. In other words, every dollar of revenue raised by the tax costs the economy an additional fifty-five cents and reduces consumer surplus by ten cents.[25]

A debatable aspect of this analysis is the calculation of lost producer surplus. Hausman's calculations make sense if there are prohibitive barriers to entry into the long distance market, enabling incumbent firms to sustain supracompetitive profits. In this case, elimination of the tax does not cause a change in market structure, and area A represents an increase in industry profits that results from the expansion of incumbent firms. However, as Hausman (1998) notes, it is possible "that the industry is imperfectly competitive and price exceeds marginal cost to cover fixed costs." In this case, the elimination of the tax could prompt additional entry, and at least part of area A represent the additional fixed costs incurred by the new entrants. Increased industry fixed costs do not add to economic welfare, suggesting that Hausman's calculation of the efficiency loss from an access tax is biased upward. Indeed, if equally efficient firms drive equilibrium profits to zero both before and after the elimination of the tax, then the efficiency loss from the access tax is only the loss in consumer surplus measured by area B, which is the second, smaller number in each entry of Table 2.[26] Thus one's perspective on the efficiency loss

[24]Perhaps surprisingly, the average efficiency loss is not monotonic in $\frac{t}{p}$. This is because an increase in $\frac{t}{p}$ increases both numerator (total efficiency) and the denominator (tax revenue) of the expression for average efficiency loss.

[25]Hausman (1998) apparently estimated the deadweight loss using a second-order Taylor series approximation, although his precise calculations are difficult to unravel. He also assumed a higher tax rate of $\frac{t}{p} = .403$, which was plausible a few years ago before price caps lowered access rates. He arrived at an estimated deadweight loss of \$0.654 for each dollar of revenue raised. Substituting $\frac{t}{p} = .403$ into the above exact formula yields a smaller \$0.56. Prieger (1998) applies a similar public finance methodology (and explains it better) to estimate the deadweight loss from prospective universal service taxes. The point is the same. Price distortions to support universal service potentially entail substantial efficiency losses. The authors agree that a more efficient way to fund explicit universal service subsidies would be to tax local access. See also Hausman (1999).

[26]More generally, if entry is "lumpy", then abnormal long run profits can persist in a free entry equilibrium. However, it is unclear *a priori* whether industry profits will rise or fall if the elimination of a tax prompts additional entry. If industry profits were to fall then the efficiency loss from the tax would be even less than area B, and conversely. Lacking finely detailed information on market structure, it appears reasonable to assume a zero effect of entry on long run industry profits and to measure the efficiency loss by area B alone. However, if firms differ

from universal service taxes depends on assumptions about the industrial organization of the long distance market.[27]

Table 2: Efficiency and consumer surplus losses per $ tax revenue

	$\frac{c}{p}=0$		$=0.25$		$=0.50$		$=0.75$	
$\varepsilon = 0.6$								
$\frac{t}{p}=0.25$	0.65	0.09	0.46	0.09	0.28	0.09	0.09	0.09
$=0.50$	0.73	0.21	0.47	0.21	0.21	0.21		
$=0.75$	0.85	0.42	0.42	0.42				
$\varepsilon = 0.7$								
$\frac{t}{p}=0.25$	0.77	0.10	0.55	0.10	0.33	0.10	0.10	0.10
$=0.50$	0.88	0.25	0.56	0.25	0.25	0.25		
$=0.75$	1.06	0.51	0.51	0.51				
$\varepsilon = 0.8$								
$\frac{t}{p}=0.25$	0.90	0.12	0.64	0.12	0.38	0.12	0.12	0.12
$=0.50$	1.04	0.29	0.67	0.29	0.29	0.29		
$=0.75$	1.29	0.61	0.61	0.61				

Hausman (1998 p. 14) argues that a more relevant calculation is the marginal effect of reducing usage taxes. Hausman assumed that any increase in the usage tax is fully passed on to consumers. Under this assumption, the marginal deadweight loss with respect to t is

$$(1-\frac{c}{p})\varepsilon q \tag{3.1.5}$$

of which

$$\varepsilon\frac{t}{p}q \tag{3.1.6}$$

is the marginal loss in consumer surplus. The marginal tax revenue for an increase in t is

$$(1-\varepsilon\frac{t}{p})q. \tag{3.1.7}$$

in efficiency, then part of area A could represent the rents of the more efficient firms, in which case the efficiency loss per unit of tax revenue is somewhere between the two numbers reported in Table 2.

[27]Prieger (1998 p. 66) recognizes that the efficiency loss depends on industry structure, but downplays it by suggesting that short run entry barriers might allow above-normal profits to persist temporarily. His calculations (1998 Table 2) confirm that the welfare loss from an access tax is much lower in the long run once new entry erodes the temporary market power of the incumbents. See Kaserman and Mayo (2001) for a detailed discussion of the industrial organization of the long distance market.

Dividing (3.1.5) and (3.1.6) by (3.1.7) gives the marginal efficiency loss and the marginal consumer surplus loss for an extra dollar of tax revenue raised by an increase in the usage tax. Table 3 presents some representative calculations. Following Hausman, these calculations assume that an increase in the usage tax is fully passed on to consumers in the final price. For example, if $\varepsilon = 0.7$, $\frac{t}{p} = 0.25$ and $\frac{c}{p} = 0.25$, then a \$1 increase in the amount of revenue raised by the access tax costs society an additional \$0.64, of which \$0.21 is a direct loss to consumers. A comparison of Tables 2 and 3 shows that marginal losses exceed average losses.

Table 3: Marginal efficiency and consumer surplus losses

	$\frac{c}{p} = 0$		$= 0.25$		$= 0.50$		$= 0.75$	
$\varepsilon = 0.6$								
$\frac{t}{p} = 0.25$	0.71	0.18	0.53	0.18	0.35	0.18	0.18	0.18
$= 0.50$	0.86	0.43	0.64	0.43	0.43	0.43		
$= 0.75$	1.10	0.82	0.82	0.82				
$\varepsilon = 0.7$								
$\frac{t}{p} = 0.25$	0.85	0.21	0.64	0.21	0.42	0.21	0.21	0.21
$= 0.50$	1.08	0.54	0.81	0.54	0.54	0.54		
$= 0.75$	1.47	1.11	1.11	1.11				
$\varepsilon = 0.8$								
$\frac{t}{p} = 0.25$	1.00	0.25	0.75	0.25	0.50	0.25	0.25	0.25
$= 0.50$	1.34	0.67	1.00	0.67	0.67	0.67		
$= 0.75$	2.00	1.50	1.50	1.50				

Hausman argues that it would be more efficient to finance universal service subsidies from general tax revenues. He bases this recommendation on published estimates of the marginal efficiency losses of general taxes ranging between 0.260 and 0.395 (Hausman 1998 p. 15). Table 3 shows that the marginal welfare effects of the asset tax exceed this range (for $\varepsilon = 0.70$) if lost producer surplus (area A of Figure 3) is part of incremental deadweight loss. However, if producer surplus is dissipated by entry costs, as in a symmetric free entry oligopoly equilibrium, then the marginal welfare effect of the usage tax, which is equal to the marginal consumer surplus loss, is less and may be below the marginal social cost of public funds. Thus, depending on the industrial organization of the long distance market, the access tax may or may not be an economically attractive method to finance universal service compared to financing out of general revenues.[28]

Hausman's main policy recommendation is that universal service is best achieved by targeted subsidies financed by a fixed universal service tax on access. The FCC is moving in

[28]The industrial organization literature recognizes that oligopoly entry may be excessive from a social perspective (Mankiw and Whinston 1986). In this case, an access tax can improve social efficiency by reducing excessive entry.

this direction by reducing per minute long distance access charges and by raising the monthly subscriber line charge (SLC). The wisdom of "going all the way" and completely eliminating per minute access charges depends on scale economies and network externalities, discussed in the next two subsections.

3.2 Scale economies

Local economies of scale provide a rationale for universal service policies, although this economic argument does not feature prominently in today's policy debates on the subject. Certainly, local scale economies cannot be dismissed out of hand. Maher (1999) reports modest estimated scale economies in access, based on central office cost data provided anonymously by two local telephone companies. If there are economies of scale of connecting people, then adding people to the network lowers the average cost of connections, potentially to the benefit of all.

The *a priori* plausibility of local scale economies depends on the nature of the universal service problem. One flavor of scale economy is an economy of density. An increase in telephone penetration at a wire center service area that is already built out amounts to an increase in the number of lines served in a given geographic area. For example, if 95 out of 100 households on a street already are getting telephone service, then the incremental cost of serving an additional household must be less than the average incremental cost of serving the street. The reason is that the necessary poles and conduits, and perhaps even spare copper wire pairs, are already in place. Thus scale economies are very plausible if the universal service problem is to increase penetration in a given service area.

Another flavor of local scale economy is an economy of geographic scope. If greater penetration requires extending the perimeter of the wire center, then it is plausible that the incremental cost of service is either greater or less than the average cost. On the one hand, average cost may decline because the geographic extension relies on existing remote terminals, transport and switching infrastructure. On the other hand, the greater costs of installing and maintaining longer copper wire loops could cause the incremental costs of service to rise above the average cost. For this reason, economies of geographic scope seem less plausible than economies of density as a source of local scale economies.

The economies of scale rationale for universal service poses a well known dilemma. Average cost pricing results in an inefficiently low level of penetration, but marginal cost pricing leaves a deficit to be funded somehow. What's a regulator to do? The famous Ramsey rule for second-best pricing resolves the dilemma optimally by marking-up prices above marginal cost in inverse proportion to the price elasticity of demand.

Most U.S. households pay a fixed monthly price for access (and local service) and usage sensitive prices for long distance calling. The long distance prices may depend on whether the call is intrastate or interstate, and on the distance of the call. However, a simple two-part service arrangement featuring a fixed usage price provides a good basis for an analysis of optimal pricing with economies of scale. The standard Ramsey rule requires some modification if there are separate prices for access and usage. The modification is required because access is a necessary ingredient of residential access to the telephone network. This section outlines the relevant theory of optimal two-part tariffs, along the lines developed by Brown and Sibley (1986), Vogelsang and Mitchell (1991), and Schmalensee (1981). It is appropriate to interpret the economy of scale in the theoretical model as an economy of density.

Ramsey pricing rules are based on demand as well as costs. Thus, the derivation of the optimal pricing rule requires a model of both. To keep matters simple, assume that there are just two services, usage and access, and a separate price for each, p and r.[29] Consumer heterogeneity is represented by a parameter θ. A type θ individual has a utility (consumer surplus) of

$$V = U(p, \theta) - r$$

from connecting to the telephone network. A service plan that is more favorable to the consumer yields a higher consumer surplus.

Different types of consumers have different preferences over service plans. To simplify further, assume a multiplicatively-separable functional form

$$U(p, \theta) = \theta u(p),$$

Thus the consumer surplus of a type θ consumer with service plan (p, r) is

$$V = \theta u(p) - r$$

where $u(p)$ is assumed to be a smooth, convex, and decreasing function of p. A consumer with a higher value of θ is more willing to accept a higher access price for a lower usage price. However, all consumers have the same price elasticity of demand for usage. By a standard economic argument,[30] a type θ individual has a demand curve for usage,

$$\begin{aligned} X(p, \theta) &= -\theta u'(p) \\ &\equiv \theta x(p), \end{aligned}$$

that is derived from the utility function. The corresponding price elasticity of demand for usage is

$$\epsilon = -\frac{px'(p)}{x(p)}$$

The price elasticity might depend on p, but it does not depend on θ.

Only consumers with a positive consumer surplus will opt to connect to the network. The marginal type is θ_o satisfying

$$r = \theta_o u(p), \tag{3.2.1}$$

meaning that this consumer is just indifferent between connecting or not. By substituting this expression for r into the utility function expressed by equation (3.2.1), the consumer surplus of a type θ is written as

$$V = (\theta - \theta_o)u(p),$$

[29]This is an oversimplification: usage can be interpreted as long distance usage, with local usage bundled into access. More generally, economic efficiency requires separate usage-sensitive prices for local and long distance usage, because these have different price elasticities.

[30]The argument is known in the consumer theory literature as Roy's identity. The partial equilibrium framework adopted here assumes a constant marginal utility of income, implicitly interpreting a decrease in r as an increase in income.

which is a function of the consumer's type, the marginal consumer type, and the usage price.

If M is the total number of consumers, and N are connected, then the penetration rate is $n = \frac{N}{M}$. The penetration rate is related to the identity of the marginal consumer by the formula

$$n = \int_{\theta_o}^{\infty} f(\theta)d\theta \equiv [1 - F(\theta_o)]$$

Here $f(\theta)$ is the frequency (density) of type θ consumers in the population, and $F(\theta)$ is the fraction of consumers who make fewer calls than does a type θ. In this model, the elasticity of the penetration rate with respect to the access price r is

$$\eta = \frac{\theta_o f(\theta_o)}{n}$$

This "access elasticity" measures the sensitivity of the marginal consumer to a change in the access price. The average consumer is type

$$\bar{\theta} = \frac{\int_{\theta_o}^{\infty} \theta f(\theta)d\theta}{n},$$

makes $\bar{\theta}x(p)$ calls, and enjoys a consumer surplus of $\bar{\theta}u(p) - r$. The average consumer surplus over the entire population is therefore

$$\bar{V} = n\left[\bar{\theta}u(p) - r\right]. \tag{3.2.2}$$

Substituting equation (3.2.1) for the marginal consumer into (3.2.2) yields an expression for average population consumer surplus,

$$\bar{V} = n(\bar{\theta} - \theta_o)u(p)$$

as a function of the usage price, the marginal consumer, and the average consumer.

Now turn to costs and profits. Assume for simplicity that the marginal cost of usage is a constant at c. The average cost of a connection is $\bar{h}(\theta_o)$ when all types $\theta \geq \theta_o$ are connected to the network. The marginal cost is related to the average cost according to the formula

$$h(\theta_o) = \bar{h}(\theta_o) - \frac{\bar{h}'(\theta_o)\theta_o}{\eta}.$$

An economy of scale in providing access exists if $\bar{h}'(\theta_o) > 0$. In this case the marginal cost of a connection is lower than the average cost. This means that, as more subscribers are added to the network, the average cost declines. The profits earned on an average consumer are $r + (p - c)\,\bar{\theta}x(p) - \bar{h}(\theta_o)$. Using equation (3.2.1) to substitute for r and averaging over the entire population yields an expression for the average population profit,

$$\bar{\Pi} = n\left[\theta_o u(p) + (p - c)\,\bar{\theta}x(p) - \bar{h}(\theta_o)\right].$$

The problem of maximizing total welfare subject to a break-even constraint on profits amounts to maximizing a weighted sum of consumer surplus and profits according to the Lagrangian function

$$L = \bar{V} + (1+\lambda)\,\bar{\Pi}$$

where $\lambda \geq 0$ is the shadow price of the break-even constraint. In other words, the optimal service plan maximizes an appropriately weighted sum of consumer surplus and profits (producer surplus). The greater weight on profits reflects the cost to society of solving the Ramsey dilemma of how best to recover access costs. As shown below, the shadow price is strictly positive if there are economies of scale.

Maximizing L with respect to p yields the modified Ramsey formula for pricing usage [?, p. 95]:

$$\frac{p-c}{p} = \frac{\lambda}{1+\lambda}[1-\varpi]\frac{1}{\epsilon}$$

where ϵ is the price elasticity of usage defined earlier, and the variable

$$\varpi = \frac{\theta_0}{\bar{\theta}}$$

is equal to the ratio of usage of the marginal consumer to average usage. Thus, assuming that the Ramsey dilemma is real and $\lambda > 0$, the usage markup is higher the greater is the difference in usage between the marginal and average subscriber. Brown and Sibley (1986 p. 96) interpret $1-\varpi$ as "an adjustment term accounting for the cross-elasticity between consumption and participation." More specifically, the adjustment accounts for the facts that an increase in p requires a decrease in r in order to maintain penetration, and that this rebalancing impacts both average utility and profits.

The usage formula makes clear that marginal cost pricing can solve the welfare maximization problem only if $\lambda = 0$. This case obtains for a particular value of θ_0. In this singular case $p = c$, requiring $r = \bar{h}(\theta_o)$ if the firm is to break even. This consumer type is just willing to accept a strictly cost-based service plan with access price $r = \bar{h}(\theta_o)$ and a usage price $p = c$. Can this be optimal? The answer is no if there is a an economy of scale in connecting people to the network, i.e. if

$$\bar{h}'(\theta_o) > 0$$

To reach this conclusion, consider how social welfare changes with the identity of the marginal consumer. Evaluating the derivative of L with respect to θ_0 at the point of strict cost-based pricing yields

$$\frac{dL}{d\theta_o} = -\bar{h}'(\theta_o)n$$

which is unambiguously negative if $\bar{h}'(\theta_o) > 0$, meaning that welfare would be increased by lowering θ_o. But then the profit constraint becomes binding, i.e. $\lambda > 0$, and $p > c$ according to the usage formula. Thus, economies of scale provide a clear rationale for "price distortions."

The average consumer benefits from the resulting network expansion because economies of scale enable a lowering of the access price relative to the increase in the usage price.

The optimal access price satisfies a modified Ramsey formula that appropriately accounts for opportunity costs. The first-order condition for optimal θ_o yields (Brown and Sibley 1986 p. 95).

$$\frac{r-m}{r} = \frac{\lambda}{1+\lambda}\frac{1}{\eta}$$

where

$$m = h(\theta_o) - (p-c)\,\theta_o x(p)$$

is the marginal opportunity cost of a connection. The formula modifies the standard Ramsey inverse elasticity rule by treating marginal usage revenues as a component of marginal opportunity cost. A key observation from the formula is that, for purposes of optimal access pricing, the theoretically correct definition of marginal cost is marginal opportunity cost, which subtracts the usage profits earned on the marginal consumer from the marginal cost of a connection.

Economists' advice that usage should be priced close to its marginal cost is based on empirical evidence that the access elasticity is small, and on an implicit assumption that the revenue contribution of the marginal consumer is not likely to be large relative to marginal cost.[31] For example, suppose that the usage profits on the marginal consumer just cover the marginal cost of a connection. Then $m = 0$, $\frac{\lambda}{1+\lambda} = \eta$, and $\frac{p-c}{p} = (1-\varpi)\frac{\eta}{\epsilon}$. If the access elasticity (η) is small relative to the usage elasticity, then the usage markup is small. Empirical estimates of the price elasticities of access and (long distance) usage are in the neighborhood of $\eta = 0.02$ and $\varepsilon = 0.70$, i.e. the usage elasticity is an order of magnitude greater than the access elasticity, which implies that the usage markup is small. Thus, unless the profit contribution of marginal consumers exceeds the marginal connection cost significantly, scale economies do not appear to be an important justification for large price distortions to achieve universal service.[32]

3.3 Network externalities

Network externalities are inherent in the idea of a telephone network. The larger the network, the more people there are to call, and therefore the greater is the value of being connected to the network. Although network externalities provide a clear rationale for universal service policies, it is a rationale that has lost center stage in the policy debate. Laffont and Tirole (2000 p. 230) offer the following explanation for its neglect:

[31]The fact that penetration is lower for lower income households suggests that marginal consumers are predominantly lower income households. Crandall and Waverman (2000) document that lower income households do spend less on long distance usage, although the difference is not a dramatic one.

[32]This conclusion needs some qualification. If the average demand is great, then even a small usage markup (i.e. small λ) can justify a significant access discount. Moreover, it is possible to construct realistic examples of optimal two-part tariffs featuring both small usage markups and moderate access discounts. Using a model calibrated to 1970 data Mitchell (1978 p. 531) calculated that the optimal two-part tariff for local service has moderately-sized access discounts and usage markups, while achieving a high penetration rate. However, it is noteworthy that price elasticity for local usage implicit in Mitchell's model is significantly less than the consensus 0.7 elasticity for long distance usage (Mitchell 1978 p. 528). Building on Mitchell's example, Brown and Sibley (1986 p. 96) calculated that the optimal two-part tariff raised average consumer welfare by 5 cents a month compared to pricing usage at average cost, although at the cost of significantly reduced penetration.

> Network or club externalities are no longer at the forefront of the universal service debate (except perhaps for new services such as the Internet), partly because networks are largely developed in OECD countries and partly because it is recognized that network externalities are to a large extent internalized by operators.

This dismissal of the network externality rationale for universal service is not fully convincing. The argument that network externalities are unimportant in developed economies rests on an assumption that the average subscriber to the network does not have much interest in calling the marginal subscriber.[33] Crandall and Waverman (2000 p. 25) put the argument this way:

> (T)he network externality argument has little relevance for telephony in developed economies today for several reasons. If my telephone in Manhattan reaches 2 million people, another connection will probably have little value to me. Of course, if that connection is my mother, then the connection is of real value to me, and ... I can subsidize her telephone directly! Otherwise, there is no reason why I - in Manhattan - should subsidize someone in Kalamazoo.

The rhetoric does not quite hit its mark. Even if the average telephone subscriber in Manhattan places a small value on being able to call the marginal subscriber, multiplication of that small value by 2,000,000 can be a large number. Moreover, there surely are people in Manhattan who value calling people in Kalamazoo; that is, a network externality can be long distance as well as local. The magnitude of the network externality remains an empirical issue on which evidence is scant.

How do regulated firms internalize network externalities? To a large extent, this is up to the regulators. Raising the price of usage above its marginal cost, and reducing the price of access below its incremental cost, encourages the subscription of consumers who most likely do not originate a lot of calls.[34] Nevertheless, these subscribers may receive calls from other consumers who benefit from making these calls. Moreover, the increased call volume from this externality generates additional revenue which limits the need to raise the usage price to cover the access deficit. The economic efficiency of such price distortions is the focus of the network externality debate.

It is not hard to construct a theoretical model that illustrates the potential importance of network externalities. Consider a telephone network serving N consumers. Suppose that each consumer is potentially interested in calling a fraction θ of the others, and places an average of $x(p)$ calls to each at a price of p. Therefore, the number of calls the consumer makes is

$$X(p, \theta, N) = \theta(N-1)x(p)$$

and the consumer's value of calling is

$$U(p, \theta, N) = \theta(N-1)u(p).$$

[33]There are other less obvious network externalities. A large subscriber base creates a "market" for various network-based transactions. e.g. bank by phone. Such indirect network externalities most likely less important for mature networks, but arguably of crucial importance for emerging networks such as the Internet. See Katz and Shapiro (1994).

[34]On the other hand, Hausman *et. al.* (1993) report estimates suggesting that rebalancing rates in the opposite direction could increase penetration.

where the relationship between $u(p)$ and $x(p)$ is as in the previous section. Each consumer's usage and value of being connected increases linearly with the number of other consumers connected to the network. This is a mathematical statement of a particularly strong network externality.[35] More generally though, the network externality hypothesis only requires that value increases monotonically with subscribers.

The consequences of network externalities for usage prices can be derived by building on the previous model of optimal two-part pricing; see Vogelsang and Mitchell (1991) for a literature survey and a related model. With a network externality, the utility of an average subscriber is

$$\bar{\theta}\,(N-1)\,u(p) - r$$

and the marginal consumer (type θ_o) is defined by

$$r = \theta_o\,(N-1)\,u(p).$$

Substitution and multiplication by the penetration rate gives the population average utility,

$$\bar{V} = n\left(\bar{\theta} - \theta_o\right)(N-1)\,u(p).$$

Similarly, if the average network cost is fixed at $\bar{h}$ (ignoring scale economies), then the population average profit is

$$\bar{\Pi} = n\left\{(N-1)\left[\theta_o u(p) + (p-c)\,\bar{\theta}x(p)\right] - \bar{h}(\theta_o)\right\}$$

The Lagrangian is defined as before, and the "Ramsey formula" for the optimal usage price is exactly the same:

$$\frac{p-c}{p} = \frac{\lambda}{1+\lambda}\left[1-\varpi\right]\frac{1}{\epsilon}$$

where ϖ is the ratio of marginal to average usage. The optimal access price generalizes the previous formula:

$$\frac{[r-m]}{r} = \frac{\lambda}{1+\lambda}\frac{1}{\eta} - \chi;$$

with opportunity cost similar to as before:

$$m = \bar{h} - (p-c)\,(N-1)\theta_o x(p);$$

and a new term reflecting the network externality:

$$\chi = \frac{N-1}{N}\left[\frac{\bar{h}}{r} + \frac{1}{1+\lambda}\left(\frac{1}{\varpi} - 1\right)\right].$$

As in the case of scale economies, marginal cost pricing is not optimal, i.e. $\lambda > 0$, which requires an access deficit ($r < \bar{h}$) from the break-even constraint.

[35]This is a statement of "Metcalfe's Law" that the value of a network increases with the number of users squared. Robert Metcalfe was the founder of 3Com Corporation.

The network externality clearly justifies pricing access below the average cost of a connection, perhaps substantially depending on the values of λ and ϖ. Using the approximation $\frac{N-1}{N} \approx 1$, and assuming constant returns to scale, we obtain

$$\frac{r-\bar{h}}{r} \approx \frac{1}{1+\lambda}\left(\frac{1}{\varpi}\right)^2 - \frac{\lambda}{1+\lambda}\left(\frac{1}{\eta}-1\right)\left(\frac{1}{\varpi}\right)$$

The following is an example demonstrating that the network externality can justify a significant discount on the price of access. Suppose that the elasticities of access and usage are $\eta = 0.02$ and $\varepsilon = 0.70$, respectively, and that costs are $c = 0.015$ and $\bar{h} = 20$ with no scale economies. In dollars and cents, this means that the marginal cost of usage is a penny and a half, and the cost of access is \$20. Suppose further that $\varpi = 0.11$ and $\lambda = 0.186$.[36] The solution to the model for this example is: $p = 0.019$; $r = 16.90$. The optimal usage price is just under two cents and the optimal access price is just under \$17.

The example demonstrates that the network externality hypothesis potentially provides a sound theoretical rationale for subsidizing access to achieve universal service. Of course the model is too simple for practical purposes and probably overstates the case for an access subsidy. One blemish is the unrealistic assumption that doubling the size of the network also doubles the amount of usage at a given price. Telephone calls take time and consumers have other things to do. An increasing opportunity cost of time will curtail telephone usage even as network size grows. Nevertheless, with more calling opportunities, consumers can substitute from lower to higher value calls. The increased substitution opportunities of a larger network still validates the network externality hypothesis even if consumers do not make more calls. However, the rising opportunity cost of calls does lessen the quantitative significance of the network externality.

A second blemish is that the model assumes that all consumer types receive the same number of calls, even though they differ in their originating usage. It is possible and perhaps likely that people who make few calls when connected to the network also tend to receive few calls. The external benefits of connecting such people to the network are small. If this were true for marginal users as a class, then the case for an access subsidy is weakened significantly. This apparently is what Crandall and Waverman mean in the quotation above. However, the empirical validity of this intuitively plausible hypothesis remains unclear.

A final blemish is that the analysis ignores call externalities. A call externality occurs when some of the benefits of a telephone call accrue to the recipient, and are not internalized by the caller. In the United States and elsewhere the calling party pays for the telephone call,[37] and may decline to place a call if the price is too high, even though the joint benefits of the call are worth the cost. For example, I may wait for you to call me, and vice versa, and the call gets put off. The model can be modified to account for call externalities by supposing that the

[36]These values can be justified by a suitable choice of distribution function for θ, and by a suitable multiplicative scaling of the value of usage. The usage ratio $\varpi = 0.11$ determines the penetration rate from the distribution of types; for example, if θ has a standard uniform distribution, then the implied penetration rate is about 94%. The Lagrange multiplier $\lambda = 0.186$ means that it costs the economy an additional \$0.18 for every \$1.00 raised this way via the usage markup.

[37]An exception is a call to a wirelesss phone. In the United States the wireless receiver pays airtime charges. Elsewhere in the world, "calling party pays" is the norm even for wireless calls, and there is a move afoot for the FCC to require a "calling party pays" option in the U.S. as well.

value of receiving a call is (on average) equal to ν. Then the Ramsey formula for optimal usage pricing becomes

$$\frac{p-c}{p} = \frac{\lambda}{1+\lambda}\left[(1-\varpi)\frac{1}{\epsilon} - \frac{\nu}{p}\right].$$

Clearly, if ν is sufficiently large relative to p, then the optimal markup is negative, i.e. it is optimal to encourage more calls by setting the usage price below marginal cost.[38] Clearly, if usage is priced below cost, then access must be priced above cost if the firm is to break even. Thus, the call externality could completely undermine the case for access subsidies based on scale economies and network externalities.

Despite the conflict between call externalities and network externalities, the former has not received as much attention in the academic literature. Brown and Sibley (1986 p. 197) put the case against call externalities this way:

> The call externality is probably not too important. It only involves two people and can probably be easily "internalized." For example, two frequent callers could arrange to share the cost of calling. Furthermore, not all call externalities are positive externalities; there are certain phone calls that one is annoyed to receive. Since the telephone company cannot be expected to distinguish between positive and negative call externalities, it is probably not useful to incorporate them into price formulas. For this reason, and because call externalities can be internalized fairly well, they do not provide a strong case for call price reductions.

Vogelsang and Mitchell (1991) give more credence to the call externality by observing that successful bargaining over how to divide the cost of calling may itself require a costly telephone call. They also argue that call externalities are relatively more important in developed economies; their reason is that call externalities involve interactions among all consumers, while network externalities only involve interactions with marginal consumers. In the context of the above theoretical model, this means that, while network externalities increase with network size at rate N, call externalities increase at rate N^2. This is an interesting theoretical argument. However, empirical evidence on the relative significance of call and network externalities is lacking.

There are scraps of evidence on network externalities in telecommunications networks. As discussed in Section 2, Crandall and Waverman (2000) find a positive effect of population density on the demand for residential access, and interpret this as supporting the network externality hypothesis. Another scrap of evidence comes from Louis Perl's 1983 unpublished study of access demand, summarized by Taylor (1994 p. 86-96). Perl included in his discrete choice model measures of the size and density of the local network. His estimates imply that doubling size and density of a local network of 25,000 increases the average value of a subscription by $4.36, while doubling the network again creates another $1.17 of value for each subscriber (Taylor 1994 pp. 236-8). Thus, only modest network externalities appear at the local level, and the magnitude of the local network externality declines with size.

[38]Note that $\frac{\lambda}{1+\lambda}v$ can be interpreted as an additional component of opportunity cost in the Ramsey formula for usage prices. The reason for the $\frac{\lambda}{1+\lambda}$ adjustment is that the call externality enables the firm to charge a higher access price to the marginal consumer.

Network externalities can be either local or long distance. It is valuable to reach more people with a long distance call, as well as to be able to place more calls within a local service territory. It is unclear *a priori* which kind of network externality is the more important. The value of being able to call someone on the telephone depends both on the price of the call and on the availability of alternative means of communication. On the one hand, even though a local call typically is free, face-to-face communication is often an excellent alternative. On the other hand, a long distance call, while costly, often lacks a good substitute. The fact that long distance prices have been dropping sharply suggest that long distance network externalities are becoming more important.[39]

The network externality hypothesis allows that usage increases with the number of connected consumers. Taylor (1994 Appendix 3) estimated a log linear equation relating the average number of calls from city A to city B to relevant prices, the average household income in A, and the number of addressable telephones in B (market size) using quarterly data on off-peak long-haul traffic between Canadian cities between 1974 and 1983. The estimated elasticity of usage with respect to market size was 1.482 with a t-value of 8.5! It is not clear what to conclude from this estimate. Taylor speculates that the high elasticity reflects a usage externality, whereby one call leads to another.[40]

Barnett and Kaserman (1998) caution about the limits of the network externality hypothesis as a justification for subscriber subsidies. They make three important points. First, network externalities are mostly inframarginal at high penetration levels, and it is unnecessary to subsidize the bulk of subscribers who would join the network anyway. Second, economic efficiency is increased by targeting subscriber subsidies at marginal consumers who are most likely to generate network externalities. For example, these might be individuals who receive more calls than they make, and do not value communication sufficiently to subscribe without a subsidy. Third, subscriber subsidies only improve welfare if the external benefits of subscription from the network externality exceed the efficiency losses from financing the subsidies. These arguments lead the authors to the bottom-line conclusion that uniform subsidies are unlikely to improve average consumer welfare.

Although this conclusion is probably overdrawn, Barnett and Kaserman's three cautions are well taken. In particular, it is clearly desirable to target universal service support more efficiently. Third degree price discrimination, which offers discounts to selected consumer groups, or second degree price discrimination based on optional calling plans, are ways to do this.

3.4. Third degree price discrimination

Notwithstanding the attractive properties of Ramsey rules, a simple two-part tariff is not the best way to achieve universal service goals. The efficiency burden of maintaining universal service can be lessened by allowing price discrimination. Economists distinguish various kinds of price discrimination. First-degree price discrimination is charging different prices to different people based on their identity. Leaving aside the question of its legality, an effective first degree

[39]Implicit in this discussion is the idea that it may be possible to draw inferences about network externalities from changes in usage prices. The economic consequences of disconnecting someone from a network is not much different from charging an exceedingly high price for telephone calls. It may be possible to draw an inference about network externalities by extrapolating the consequences of small price change.

[40]This usage externality is discussed also by Taylor (2001).

price discrimination scheme is infeasible for mortal regulators because it requires an omniscient knowledge of consumers' preferences. Second-degree price discrimination is something of a misnomer, because all consumers are offered the same menu of choices and elect different items on the menu according to their preferences. Thus consumers end up paying different prices under second degree price discrimination because they choose to do so. Third-degree price discrimination charges different prices to groups of consumers based on observable characteristics of the group. Different prices based on income or location are examples.

Third degree price discrimination is a recognized tool for promoting universal service. The FCC's low-income and high-cost support policies, discussed in more detail in the next section, fall into this category. Low-income support policies provide discounts to individuals meeting certain means tests. High-cost support policies seek to narrow price differences based on the average cost of service in different locations.

The analytics of optimal third degree price discrimination are a straightforward generalization of the normative theories presented earlier. Suppose consumers are divided into two classes, Class I and Class II, and consider the theory of optimal two-part tariffs with access scale economies but no network externalities (a further generalization to allow for network externalities is pretty straightforward). In general, the two classes may have different demand characteristics and different costs of service. The Ramsey formulas for optimal usage and access prices generalize readily, with notation analogous to before. For Class I, the prices are

$$\frac{p_I - c_I}{p_I} = \frac{\lambda}{1+\lambda}[1 - \varpi_I]\frac{1}{\epsilon_I}$$

$$\frac{r_I - m_I}{r_I} = \frac{\lambda}{1+\lambda}\frac{1}{\eta_I}$$

and for Class II

$$\frac{p_{II} - c_{II}}{p_{II}} = \frac{\lambda}{1+\lambda}[1 - \varpi_{II}]\frac{1}{\epsilon_{II}}$$

$$\frac{r_{II} - m_{II}}{r_{II}} = \frac{\lambda}{1+\lambda}\frac{1}{\eta_{II}}$$

The optimal pricing policies for the two classes are linked by a common value of the Lagrange multiplier λ, which captures the social cost of meeting the expected profit constraint. The linkage arises because profits are aggregated across the two consumer classes. Thus, it is possible for profits on one class of consumers to compensate losses on the other.

This theory provides a rationale for low-income support policies. For simplicity, assume that both classes are served jointly and have the same cost of service, or equivalently that costs are "averaged". Assume also that both classes have the same price elasticity of usage, i.e. the two classes have different demand characteristics based only on different distributions of θ. For concreteness, suppose that Class II consumers are more likely to have a greater demand for usage, i.e. a lower value θ (in the sense of first-order stochastic dominance). Given the empirical evidence that usage increases with income (Crandall and Waverman 2000), it is natural to think of Class I as a low income group.

How should universal service support be targeted at low income (Class I) consumers? Applying the simplifying assumptions, the Ramsey formulas imply

$$\frac{p_I - c}{p_I} = \frac{[1 - \varpi_I]}{[1 - \varpi_{II}]}\frac{p_{II} - c}{p_{II}}$$

$$\frac{r_I - m_I}{r_I} = \frac{\eta_{II}}{\eta_I}\frac{r_{II} - m_{II}}{r_{II}}$$

That is, the price-cost markups for the two groups are proportional, although the proportionality factors differ for usage and access. For usage prices, the factor of proportionality depends on the ratios of usage demand for the marginal and average subscribers (ϖ) for each class. If both populations were to face the same prices, then the marginal type would be the same for the two classes, but $\varpi_I > \varpi_{II}$ because of differing mean values of θ. Thus the proportionality factor for usage prices is less than one, i.e.

$$\frac{[1 - \varpi_I]}{[1 - \varpi_{II}]} < 1,$$

indicating that Class I consumers should face a lower usage price. For access prices, the proportionality factor is the ratio of access elasticities. Although a common marginal type implies $m_I = m_{II}$, Class I would have a lower penetration rate because of the less favorable distribution θ, implying $\eta_I > \eta_{II}$, and indicating that Class I consumers should also get a lower access price. Since, at the point of no price discrimination, optimality conditions for usage and access prices fail in the same direction, it would be desirable both to lower p_I (relative to p_{II}) and to lower the price of r_I (relative to r_{II}), to bring the proportionality conditions into balance. This heuristic analysis suggests that optimal low income policies should involve both usage subsidies and access subsidies.[41]

The theory of third degree price discrimination also provides a logical basis for high-cost support policies, although the logic is rather different than for low-income support. Suppose that Class I and Class II consumers are identical, except that Class I consumers have a higher cost of access. At the optimum:

$$\frac{p_I - c}{p_I} = \frac{\lambda}{1+\lambda}[1 - \varpi_I]\frac{1}{\epsilon}$$

$$\frac{r_I - m_I}{r_I} = \frac{\lambda}{1+\lambda}\frac{1}{\eta_I};$$

and:

$$\frac{p_{II} - c}{p_{II}} = \frac{\lambda}{1+\lambda}[1 - \varpi_{II}]\frac{1}{\epsilon}$$

$$\frac{r_{II} - m_{II}}{r_{II}} = \frac{\lambda}{1+\lambda}\frac{1}{\eta_{II}}.$$

There are two interesting possibilities. On the one hand, if the marginal cost of access were the same for both consumer classes, and the difference were entirely in the fixed cost of access, then $m_I = m_{II}$ implies that both consumer classes should face the same prices. This is the economic logic for "geographic averaging". On the other hand, if the marginal cost of access were greater for Class I, then $m_I > m_{II}$ implies higher access prices for Class I. The resulting lower penetration rate means that $\eta_I > \eta_{II}$ and $\varpi_I > \varpi_{II}$; hence access and usage markups

[41]This theoretical analysis has not been developed much in the literature on optimal pricing. It is worth much more attention.

should be lower for Class I. Thus, some degree of geographic price discrimination is efficient when marginal access costs vary locationally. The price differences between the two classes for access and usage should move in opposite directions, even though the markup differences move in the same direction.

The fact that geographic price discrimination sometimes is efficient does not imply that the two geographic regions should be priced separately based on their respective costs. If the two classes were treated independently, then Class I would necessarily have higher markups to cover its higher access cost. Consequently, the structure of prices would be the same for both classes, except $\lambda_I > \lambda_{II}$. This means that it would be economically efficient to relax the profit constraint on Class I customers, and to tighten the constraint on Class II customers to make up the difference. This could be accomplished by balanced subsidies and taxes on the firms serving Class I and Class II consumers. These transfers should proceed until $\lambda_I = \lambda_{II}$ resulting in the optimal structure. Service to Class I consumers should operate at a deficit, recovered from profits (or taxes) on service to Class II consumers. This is almost a stylized description of federal high-cost policies in the United States. The difference is that in practice high income areas do not receive a usage subsidy, and perhaps receive an excessive access subsidy.

3.5 Second degree price discrimination

Optional tariffs are an example of second-degree price discrimination. Consumers are offered a choice of service plans, and allowed to self-select the plan that is best. In particular, consumers could be offered a range of service plans that trade off the access price against the usage price. Low volume consumers would prefer a plan with a lower access price and a higher usage price, and conversely for higher volume consumers. The optimal menu of service plans can be constructed using what are now well accepted methods from the mechanism design literature in economics.

The following analysis sketches the mechanism design approach to constructing an optimal menu of service plans, and characterizes the price distortions embedded in those plans. Let $[p(\theta), r(\theta)]$ denote the service plan chosen by a type θ consumer. Ignoring network externalities, the consumer enjoys a consumer surplus of

$$V(\theta) = \theta u(p(\theta)) - r(\theta)$$

Using standard analytical tools (i.e. the envelope theorem and integration), it can be shown that consumers maximize utility by choosing from the menu so that

$$V(\theta) = \int_{\theta_o}^{\theta} u(p(s))ds,$$

and that average consumer surplus over the entire population is

$$\bar{V} = \int_{\theta_o}^{\infty} u(p(\theta))\left[1 - F(\theta)\right] d\theta.$$

Now consider profits. Sales to a type θ consumer are

$$X(\theta) = \theta x(p(\theta)) \equiv -\theta u'(p(\theta))$$

and access revenues are related to usage prices according to

$$r(\theta) = \theta u(p(\theta)) - V(\theta).$$

Allowing for scale economies, the profit earned on the type θ consumer is

$$\pi(\theta) = [\theta u(p(\theta)) - V(\theta)] + [p(\theta) - c]\,\theta x(p(\theta)) - \bar{h}(\theta_o),$$

and average population profit is

$$\bar{\Pi} = \int_{\theta_o}^{\infty} \left\{\theta u(p(\theta)) - [p(\theta) - c]\,\theta x(p(\theta)) - \bar{h}(\theta_o)\right\} f(\theta) d\theta - \bar{V}.$$

Maximizing the Lagrangian $L = \bar{V} + (1+\lambda)\bar{\Pi}$ with respect to this price function yields the modified Ramsey formula

$$\frac{p(\theta) - c}{p(\theta)} = \frac{\lambda}{1+\lambda}\frac{1}{\varepsilon}\left[\frac{1 - F(\theta)}{f(\theta)\theta}\right].$$

This formula depends on the hazard rate $\frac{f(\theta)}{1-F(\theta)}$, which is the probability of being a type θ consumer conditional on not being a lower type. If the hazard rate is increasing in θ, as it is for many common distributions, and the average profit constraint is binding ($\lambda > 0$), as it is in the presence of scale economies, then the usage mark-up is smaller for higher volume users.[42] For higher volume users, the usage price is closer to marginal cost. The access price is correspondingly higher for higher volume users, i.e. $r'(\theta) = -\theta x(p(\theta))p'(\theta) > 0$. Moreover, since usage is priced above marginal cost, it is immediate from the break-even constraint that $r(\theta) < \bar{h}(\theta_o)$ for at least some users. An optimal menu of service plans results in higher volume users selecting a plan with a lower usage price and higher access price. The usage price optimally is set above marginal cost for all but the highest volume users, and the access price is below the average cost of access for lower volume users.[43]

Cain and MacDonald (1991) provide some econometric evidence supporting the desirability of optional tariffs for local service. Their demand estimates show that, if a measured service option is available for local service, then telephone penetration is insensitive to the monthly charge for flat rate service. This result is consistent with the idea that marginal consumers opt for measured service when given the choice. Cain and MacDonald interpret their results in the following way (1991 p. 303):

> These estimates suggest that universal service can be maintained and expanded, even while more of the NTS financial burden is shifted to local charges. In particular, since telephone subscribership is sensitive to measured access charges, universal service goals can be met, at relatively low cost, by introducing and expanding budget measured service options.

[42] This generalizes the formula for an unregulated monopolist. See Tirole (1988 p. 156).

[43] Faulhaber and Panzar (1977) is an early analysis of the issue. Riordan (2000) considers the $c = 0$ case and shows that a choice of two extreme service plans is optimal. High volume users would choose a flat rate plan with unlimited long distance usage. Low volume users would choose a cheaper plan with prohibitively expensive long distance usage. By continuity, an extreme two-option menu is approximately optimal for c positive but sufficiently small. As a practical matter, the marginal cost of usage is dropping with technological advance and rapidly approaching zero.

Riordan (2000) points out that similar principles can be applied to long distance usage. In particular, consumers (or long distance companies acting as their agents) can be offered optional access arrangements, or, equivalently, optional arrangements for contributing to a universal service fund. Offered the choice, higher volume users would select a higher fixed monthly payment and lower usage-sensitive payment. Such an arrangement would better target universal service subsidies to marginal consumers.

4. POSITIVE ECONOMICS OF UNIVERSAL SERVICE

4.1 Cross-subsidies in the price structure?

Commentators frequently decry cross-subsidies in the structure of telecommunications prices. The AT&T divestiture was based partly on a claim of cross-subsidies running from local to long distance services (Temin 1990). In contrast, the frequent claims today are that business cross-subsidizes residential, long distance subsidizes local, and urban subsidizes residential services. While the term "cross-subsidy" often is used loosely even in the academic literature, economists typically are complaining that some set of services (residential, local, or rural) is priced below its long run incremental cost (LRIC). This appears to have become the "popular" meaning of cross-subsidy.

Twenty-five years ago, Faulhaber (1975) sought to discipline the discussion of cross-subsidies by advancing a formal definition and corresponding tests. He defined a subsidy-free price structure as one whose revenues do not exceed the stand-alone cost for any subset of services.[44] Moreover, assuming weak economies of scope, subsidy-free prices must also cover the incremental cost of any subset of services.[45] The stand-alone and incremental cost tests are equivalent for a zero-profit firm. If the firm makes positive economic profits, then cross-subsidies are indicated by a failure of the stand-alone test applied to whole product set, even though no product need fail the incremental cost test. Thus, the popular meaning of a cross-subsidy in a regulated price structure is justified in Faulhaber's (1975) framework if the firm is held to zero economic profits.

Temin (1990) recognizes Faulhaber (1975) by defining a "cross-subsidizing service" as one priced above stand-alone cost, but still accepts popular usage by defining a "cross-subsidized service" as one priced below LRIC. If the firm were to earn positive economic profits, then, by this terminology, it would be possible in the presence of joint costs to have a service receiving a cross-subsidy, but no other service doing the cross-subsidization. Temin meant these definitions to apply only to environments in which rate of return regulation held total profits to zero, e.g. the old Bell system.[46] In this case, a failure of incremental cost test for some group of services, necessarily implies a failure of the stand-alone test for other services.

A possible tension between the popular meaning and Faulhaber's definition of a cross-subsidy is revealed in the following quotation from Kaserman and Mayo (1994 pp. 135-6):

> To some extent, the argument over whether a subsidy exists is semantic. The answer hinges upon one's definition of a subsidy and how one would measure the

[44]The stand-alone cost is the cost of producing the relevant services in isolation.

[45]The incremental cost is the cost-saving from not producing these services. The necessary and sufficient condition for the equivalence result is that the services are produced subject to weak economies of scope.

[46]Personal communication with the author.

> costs of the services involved. Regardless of the position one adopts, however, there is no economic justification for a system that places the burden of fixed network costs on usage-sensitive prices. Such a system is inefficient whether or not a subsidy results. Consequently, one need not become mired in the subsidy debate to make definite statements about efficient pricing policies. We will continue to use the cross-subsidization terminology throughout the remainder of this article because it is convenient to characterize the overpricing of one service along with the underpricing of another as a cross-subsidy, whether or not these prices fall outside the range that the Faulhaber criteria define. What is more, we are convinced that such cross-subsidization exists, is substantial, and is an accurate description of the existing price structure in this industry.

Kaserman and Mayo's blanket condemnation of price distortions implicitly denies the importance of scale economies and network externalities. As discussed earlier, normative theory provides a rationale for recovering fixed network costs from usage sensitive prices under these conditions. However, more importantly for the discussion at hand is Kaserman and Mayo's insistence on evaluating the merits of price structures in terms of economic efficiency. This is undoubtedly the principal perspective of economists when discussing cross-subsidy issues. Economists' complaints about cross-subsidies typically are on normative grounds: prices below LRIC encourage an overexpansion of telecommunications networks and are a barrier to more efficient entrants.

In contrast, Faulhaber (1975) had a more practical preoccupation. He was concerned that prices above stand-alone cost were not sustainable in a competitive market. The reason is that an equally efficient entrant could successfully undercut a price above stand-alone cost. This is an important issue for universal service, especially in the wake of the 1996 Telecommunications Act. The Act intends to open all telecommunications markets to competition. To the extent that universal service implicitly is supported by Faulhaber cross-subsidies, these subsidies are likely to be undermined by new competition. Recognizing this, the Act requires that implicit subsidies be made explicit and portable.[47] State regulators have been concerned about too much competition until new universal service mechanisms are in place. So far, there has been substantial new entry into business markets and not much entry into residential markets, suggesting cross-subsidies flowing from business to residential services. The existence of such a business-to-residential cross-subsidy has been established empirically by Palmer (1992). Rosston and Wimmer (2000b) estimate that nationally the average revenue per line for local service is $39.14 for business lines compared to $18.29 for residential.

A problem with the stand-alone test is that the stand-alone cost of a group of services typically is not observed and therefore is difficult to estimate (Curien 1991). Palmer (1992) addressed this issue for the case of two services by deriving an upper bound on the stand-alone cost under a non-decreasing returns to scale assumption. Using this bound Palmer derived a pair of sufficient conditions for prices to satisfy the stand-alone and incremental cost tests

[47] A portable subsidy is paid to whichever firm provides services. The flip side of the sustainability argument is that services priced below their stand-alone costs are immune to new competition from equally efficient entrants. This appears to be the case for residential local access services in rural areas. Thus, these areas should not expect much local competition unless there is a portable explicit subsidy that makes up the difference. The FCC has recently established limited portable subsidies for the highest cost wire centers in the highest cost states, but largely has left to the states the problem of creating local competition in high-cost rural areas. See Rosston and Wimmer (2000).

for subsidy-free prices. Palmer estimated costs and revenues for 32 suburban central offices operated by New England Telephone in the mid-to-late 1980s. Almost all of these central offices failed the stand-alone test and a majority failed the incremental cost test. On average, residential revenue fell short of the lower bound on incremental cost by $0.39 per line per month, implying a business-to-residential subsidy of at least $3.45 per business line. These results suggest a substantial business-to-residential subsidy. However, Palmer does not provide confidence intervals or otherwise address estimation errors.

There is some controversy and confusion in the literature about whether long distance services cross-subsidize local services. The stylized fact is that the revenues from local services do not recover their stand-alone costs while the revenues from toll services exceed their incremental costs. The following statement by Curien (1991 p. 91) is typical:

> In telecommunications industries all over the world, the local networks run a deficit, i.e. the connection and subscription charges which are paid by users for their access fail to recover the cost of building and maintaining the connection line and other non-traffic sensitive equipment. As a result, the non-traffic-sensitive costs are subsidized by the revenues derived from traffic and especially from trunk traffic.

Such an assertion apparently flies in the face of Faulhaber's (1975) definition of a cross-subsidy. Indeed, the conditions identified by Curien satisfy Faulhaber's conditions for subsidy-free prices:[48] the price of access is below its stand-alone cost, and the price of usage is above its incremental cost. Gabel (1995) builds on this point, arguing that the access services provided by the local loop should be interpreted as a shared input into local exchange and toll services. The published literature does not contain any rigorous showing of a cross-subsidy from toll services to local exchange services.[49]

It is also widely held that geographic averaging results in a cross-subsidy from urban to rural services. This follows almost immediately for a zero profit firm under the reasonable assumptions that the stand-alone cost of urban service is substantially less than the stand-alone cost of rural services, and that joint costs are small. However, if the firm is making significant positive profits, then the validity of the claim is less clear. In the United States, regulated local exchange carriers are allowed to earn positive profits on unregulated vertical services, e.g. voice mail and call forwarding. The published literature lacks a rigorous demonstration of an urban-to-rural cross-subsidy that takes account of the profits from vertical services.

4.2 Low income subsidies

In the United States, universal service subsidies are targeted at low-income households via the Lifeline (LL) and LinkUp (LU) programs established by the FCC at the end of 1984. The LL program reduces the monthly cost of telephone service of eligible low income households by an amount equal to $7.00 currently.[50] States provide additional support resulting in total

[48]Curien's (1991 p. 91) characterization of a "cross-subsidy from traffic to access" is based on an *ad hoc* approach of using "revenue trade-offs" to measure cross-subsidies. The revenue trade-off approach arbitrarily allocates profits and costs to services, including joint and common costs, and asks whether service revenues recover allocated costs plus profits.

[49]See L. Taylor (1993), W. Taylor (1993), Kahn (1993), Gabel and Kennet (1993), and Gabel (1995) for debate on whether access should be regarded to be an input or a separate service.

[50]This is twice the federal subcriber line charge (SLC). The SLC is scheduled to increase to $5.00 under a recent FCC access reform order. Presumably, the LL subsidy will increase commensurately.

monthly subsidies typically ranging between $5.25 and $10.50; the Virgin Islands is an anomaly with total support of $14.05. The LU program subsidizes the installation charges of a new subscription for eligible households up to $30 plus up to $200 in interest on deferred payments. Eligibility criteria for both programs are established by the individual states subject to FCC approval and vary widely (Federal Communications Commission 1999). Together, the federal components of these programs are projected to cost $480 million in 1999 (Eisner 2000).

Schement, Belinfante and Povich (1997 pp. 193-6) identify twelve states who experienced large increases in telephone penetration for low income households between 1984 and 1994: Connecticut, Georgia, Hawaii, Michigan, Nevada, New Mexico, North Carolina, South Carolina, Tennessee, Vermont, Washington, and Wyoming. Two-thirds of these states were among the early adopters of the federal low-income support programs. This casual evidence suggests that LL and LU programs have been effective at promoting universal service.

There is also some more rigorous empirical evidence showing that low-income subsidies have increased telephone penetration rates, although the quantitative impact appears to be small relative to the cost of these programs.[51] Table 4 reports selected regressions from three different studies: Garbacz and Thompson (1997; hereafter G&T); Eriksson, Kaserman and Mayo (1990; hereafter EKM); and Crandall and Waverman (2000; hereafter C&W). The three studies employ different data; G&T examines state-level data from the 1990 census; EKM examines annual state-level data from the Current Population Survey; and C&W examines 1990 census data at the level of town. The three studies also employ different specifications, and report the significance of estimates differently.[52]

G&T estimate a logit model of state-level penetration, and conclude that the LL and LU programs have a statistically significant but small marginal effect on penetration for the average state. Their explanatory variables include the monthly price of (flat rate) local service, and the installation charge for new accounts. Demographic variables include the percent of households living below the poverty line, and the percent of households living in urban areas. The key variable for testing the effectiveness of low income subsidies is the amount of LL and LU funds paid out per poor household in the state. Although G&T interpret their regression equation as a demand equation, the price variables are not significant.[53]

EKM report a related analysis based on pooled state-level cross section and time series data for the period from 1985 through 1993 and draw similar conclusions. The annual penetration data is drawn from the Current Population Survey, which Garbacz and Thompson (1997; 2000) criticize as being more subject to measurement error than the decennial census data, resulting in unreliable estimates. Also worrisome is that EKM apparently ignore serial correlation in the error terms for each state, which could bias their statistical tests. EKM find a positive significant effect of LL and LU subsidies only in states that have a large poor population.[54]

[51]Park and Mitchell (1989) show in a calibrated simulation model that Lifeline rates are unlikely to significantly increase penetration.

[52]See also Albery (1995) for a related study.

[53]This could be due to endogeneity bias. Prices of local service and installation are regulated by the states. The coefficients on these variables would be biased toward zero if states with low penetration rates tended to choose lower prices for residential service. (The LL and LU estimates could suffer similar endogeneity bias; see the discussion of C&W below.) G&T do find significant price coefficients in other specifications.

[54]EKM include 1984 penetration in all of their specifications as an explanatory variable "in order to standardize for the cross-sectional variation in the observed penetrations rates prior to the sample time period." It is unlikely that the relationship is stable over time; why should penetration levels in 1993 and 1998 bear the same relation

Both G&T and EKM interpret the estimated quantitative significance of the low income subsidies with the aid of "policy experiments". G&T estimate from their regression analysis that an across the board 10% increase in subsidies would increase average penetration by "substantially less than one tenth of one percent." EKM conclude that an additional $10,000 in subsidies would add only 18 new subscribers for a state whose poverty level is average, and 75 new subscribers for the poorest states. While these calculations are provocative, the policy interpretations are not really valid, because the parameter estimates on which they are based do not have clear structural interpretations. In particular, the models do not distinguish whether the increased subsidy levels of the policy experiment come from more generous support levels or more generous eligibility criteria.

To illustrate how eligibility criteria might matter consider the following simple model. Suppose that a subsidy of s dollars is targeted at households below the poverty line, but that the prevailing eligibility criterion results in only a fraction λ of poor households being able to receive the subsidy. Suppose further that households above the poverty rate choose to have a telephone with probability β_1, subsidized poor households with probability β_2, and unsubsidized poor households with probability β_3, with $\beta_1 > \beta_2 > \beta_3$. If POV is the poverty rate, then the observed penetration rate would be

$$PEN = \beta_1(1 - POV) + \beta_2\lambda POV + \beta_3(1 - \lambda)POV$$

and the subsidy per household would be

$$SUB = s\lambda POV.$$

Thus, looser eligibility criteria (i.e. higher λ) increases both the penetration rate and the amount of subsidy. Solving these two equations to eliminate λ gives

$$PEN = \beta_1 - (\beta_1 - \beta_3)\, POV + \left(\frac{\beta_2 - \beta_3}{s}\right) SUB.$$

Therefore, holding constant the amount of the subsidy (s), the penetration rate is decreasing in the poverty rate and increasing in the subsidy per household (SUB). In this specification, the subsidy per household is serving as a proxy for eligibility criteria. This simple model provides some justification for including per household subsidies directly into a penetration equation, but also suggests that functional form may be important and that the parameter estimates need to be interpreted carefully. In this example, a doubling of subsidy payments corresponds to the policy experiment of doubling the size of the eligible population. The effect of this experiment on measured penetration would be $\beta_2 - \beta_3$. Thus, the estimated coefficient on SUB would have to be multiplied by s to measure the effect of the policy change on telephone penetration.

to 1984? It is not clear *a priori* how this source of specification error might bias the estimated effects of the low income subsidies. G&T show in their study that inclusion of lagged penetration does not much matter.

Table 4: Effectiveness of low income subsidies

study	G&T[55]	EKM[56]	C&W[57]
data source	1990 census	1985-93 CPS	1990 census
dependent variable	$\ln\frac{penetration}{1-penetration}$	*penetration*	*penetration*
(test statistic)	(standard error)	(t-statistic)	(t-statistic)
constant	3.35*	0.54622*	1.003*
	(0.728)	(16.879)	(146.6)
local service price	0.009	−0.00103*	0.00017
	(0.008)	(4.103)	(0.94)
installation charge	−0.003	−0.00032*	−0.00070*
	(0.003)	(3.824)	(9.51)
long distance price		−0.10593*	0.00096
		(6.064)	(0.44)
p.c. income			0.00048*
			(7.09)
% poor	−8.757*	−0.00200*	−0.282*
	(0.728)	(7.041)	(6.43)
% poor squared			0.292*
			(2.83)
% urban	0.473*		
	(0.132)		
% rural		−0.00013	
		(1.628)	
population density			0.0047*
			(5.22)
% black		−0.00040*	−0.034*
		(4.0060)	(5.30)
% Hispanic		−0.00039*	−0.032
		(2.926)	(5.82)
penetration in 1984		0.50301*	
		(16.036)	
p.h. LL-LU subsidy		−0.00605*	
		(2.142)	
p.h. LL-LU subsidy×%poor		0.00059*	
		(2.482)	
p.h. LL-LU subsidy÷%poor	0.017*		
	(0.002)		
LL dummy×%poor			0.016
			(1.30)
LU dummy×%poor			−0.098*
			(5.06)
p.h. high cost payments		−0.00009	
		(0.413)	
R^2	-	.8424	0.736
# observations	44	432	1,897

* Statistically significant at 0.05 level.

A priori, C&W seems the most interesting of the three studies because it relies on more disaggregated data. The study matches price data to census data on towns (cities, or designated places). The price data were obtained directly from large local exchange carriers, resulting in 1896 observations. The study measures the effect of LL subsidies with a dummy variable for the state's implementation of the program interacted with the poverty rate. Effectively, this is measuring whether poor communities in states who have LL programs in place have higher penetration rates than similar poor communities in states lacking LL programs. The regression analysis does not find a significant effect of LL on the measured penetration rate. This seems consistent with their related finding that the effect of local service prices is not significant either.

[55]This is regression (2) in Table 4 of Garbacz and Thompson (1997).

[56]Model A in Table 2 of Eriksson, Kaserman, and Mayo (1998).

[57]Model (1a) in Table 5-5 of Crandall and Waverman (2000).

These results suggest that LL has not been an effective policy tool for advancing universal service. It is possible that the supporting estimates suffer from endogeneity bias, although this seems less likely than in G&T and EKM, because in C&W the regulated prices and subsidy policies are set at the state level while penetration is measured at the town level.

C&W measure the effect of LU simply as a dummy variable interacted with poverty, effectively comparing penetration rates of poor towns in states with and without the LinkUp program. The regression equation finds that the LinkUp policies have a statistically significant *negative* effect on telephone penetration. This paradoxical result seems hard to explain, and appears inconsistent with the finding that higher installation charges reduce penetration. C&W suggest that the result is due to the fact that only two states, Delaware and Illinois, lacked LU programs and that the regulators in these states declined to implement LU because penetration rates were already high. In other words, the estimated coefficient suffers from an endogeneity bias. In view of this potential problem, the C&W study does not appear to provide very convincing evidence on the effectiveness of LinkUp.

4.3 High cost subsidies

Telephone companies serving high-cost areas in the U.S. receive direct subsidies. Federal subsidies to companies serving high-cost areas have been paid out under a variety of mechanisms (Federal Communications Commission 1999). "High-cost loop support" has been given to companies with above average non-traffic sensitive costs. Additional "long term support" subsidizes a uniform below-cost carrier line rate for participating companies. Finally, "local switching support" defrays some of the traffic sensitive costs of companies serving small market areas. Taken together, these mechanisms provided $1.7 billion in assistance in 1999. A new high-cost program established in 2000 consolidated the subsidies to larger companies in a new cost fund, and established intrastate subsidies based on forward-looking economic cost and targeted to high-cost wire centers within the receiving state. The Telecommunications Act requires that implicit universal subsidies be made explicit and financed by taxes ("contributions") on the revenues of telecommunications companies. The federal programs are financed by taxes on interstate and international revenues.

Eriksson, Kaserman and Mayo (1998) studied the effectiveness of high-cost support on the prices of Bell Operating Companies (BOCs) with the following regression equation

$$PRI = 15.53250 + 0.014660 \cdot CST - 20.20702 \cdot BUS - 0.13469 \cdot USF$$

where PRI is a weighted average flat rate for residential service, CST is the historical cost of "outside plant" for providing local access in the rate base, BUS is the ratio of business and residential lines, and USF is high cost support per household paid from the Universal Service Fund. These variables are measured at the state level. Although the coefficients are all statistically significant, the R^2 of this regression equation is only 0.20. The regression indicates a negative correlation between the amount of high cost support and the price of local service. This estimated equation suggests that an extra dollar of high-cost support translates into only a 13 cent reduction in the price of local service. Thus, given a low price elasticity for local access, this suggests that high-cost subsidies paid to companies are not very effective at increasing penetration rates. Indeed, Eriksson, Kaserman and Mayo (1998 p. 498) conclude that a $10,000 increase in BOC high-cost support would add only 15 subscribers at a cost of

$666 per new subscriber. As above, this "policy experiment" is suggestive, but not definitive because the estimated parameters lack clear structural interpretations.

Recent FCC policy has left the problem of high-cost support largely to the state jurisdictions. Rosston and Wimmer (2000a) ask what level of state universal service funds would be necessary to cover the forward-looking economic costs of local service under the assumption that telephone companies earn $32 per line, which is a benchmark revenue level that the FCC had considered previously as relevant for establishing high-cost support levels. They estimate that the state high-cost subsidies would come to almost $3 billion in the aggregate, the financing of which would require consumers to pay an weighted-average tax rate of 2.41% on intrastate revenues. They further estimate that, if instead of establishing high-cost subsidies, the states rebalanced rates to reflect costs, then telephone penetration rates would drop by only one-half of one percent nationwide. This calculation leads them to question whether this modest effect on penetration is worth the efficiency loss created by the distortionary revenue taxes, and to recommend that high-cost support be targeted better to low-income households.

5. CONCLUSIONS

A number of conclusions can be drawn from this survey of issues about universal residential telephone service. First, the two important "underserved" populations in the United States are the poor and Native Americans. These populations have substantially lower residential telephone penetration rates even after controlling for locational, demographic, and cost factors. Second, although penetration rates for similar communities are different in different parts of the United States, differences in state regulatory policies account for no more than 1-2% of this variation. Third, the extent to which "taxes" on long distance usage are an inefficient means of public finance for universal service programs depends on details of the industrial organization of long distance telephone services. Fourth, while scale economies and especially network externalities provide potentially important theoretical rationales for universal service policies, the empirical evidence on their quantitative significance is scant and inconclusive. Fifth, optional tariffs governing local and long distance toll services potentially are effective devices for targeting implicit subsidies for local access. Sixth, there is some econometric support for the proposition that business rates have cross-subsidized residential rates, according to the formal economic definition of a cross-subsidy, but the frequent claims that long distance cross-subsidizes local and that urban cross-subsidizes rural services rest on more casual appraisals. Seventh, although economic theory provides rationales for well-designed low-income and high-cost support policies for promoting universal service, the limited empirical evidence on the issue suggests that low income and high-cost subsidies have at best a quantitatively small impact on penetration rates relative to their cost.

The main conclusion of the chapter, though, is that there remains a shortfall of research on the economics of universal service. First, the determinants of telephone penetration are still not completely understood. For example, it is unclear why Native American populations suffer lower telephone penetration even after controlling for poverty, climate, and costs. It is also unclear to what extent price regulation and universal service policies explain state-specific variations in telephone penetration. Second, the empirical importance of scale economies and network externalities as rationales for universal service remains cloudy. For example, more information on usage profits earned by service providers on marginal subscribers would permit a better calculation of the economic opportunity cost of expanding basic access services. A se-

rious attempt to estimate the quantitative significance of "long distance network externalities" from price elasticities for long distance services would contribute usefully to the policy debate. Evidence on the significance of offsetting call externalities is also sorely needed. Third, an empirical quantification of the potential welfare gains from implementing optional tariffs, or other forms of second-degree price discrimination, seems to be within reach of modern structural econometrics with a sufficiently rich data set (Miravete 2000). Fourth, well-crafted tests of the propositions that long distance has cross-subsidized local services and that urban have cross-subsidized rural services are long overdue. Fifth, a fully convincing appraisal of the performance of low-income and high-cost programs in advancing universal service awaits better data and more careful econometrics. Settling these issues for the paradigm problem of maintaining and advancing basic universal residential telephone service will strengthen the foundations for debating and evaluating the next generation of universal service policies.

Only a few qualified lessons can be drawn for policy-makers. First, while state regulators should "benchmark" their regulatory and universal service policies to other states, the adoption of "best practices" might increase residential telephone penetration by only a few percent. Second, even though policy-makers can in good faith remain hesitant to embrace too closely the chorus of calls for strict cost-based pricing of local access services, the economic case for a significant markup of usage prices is debatable. Third, while the FCC and the states should consider optional arrangements for universal service contributions as a better way to target universal service support, the quantitative significance of such policies remains an open question. Fourth, the FCC most likely should exempt service provided to Lifeline and LinkUp recipients from universal service contributions. All such advice is tentative, of course, pending further economic research.

Although beyond the scope of this chapter, it is worth mentioning, in closing, a few upcoming issues. One new issue is universal service auctions. The 1996 Telecommunications Act opens the door for the FCC to consider auctions as an alternative mechanism for high-cost support. The FCC has so far refrained from doing so, although in its 1997 *Universal Service Order* expressed an intention to open a proceeding on the matter. In the mid 1990s, California considered but did not adopt auctions for awarding state high-cost support. Other places, including Europe and Australia, have also considered auction mechanisms for high cost support. There is a new theoretical literature on the topic (Laffont and Tirole 2000; Sorana 2000). Another new issue for which there is an emerging literature is the effect of universal service policies on competition (Gasmi, Laffont, and Sharkey 2000; Choné, Flochel, and Perrot 2000). The Telecommunications Act requires that universal service policies in the United States be competitively neutral. In the U.S. and even more blatantly in other countries, new competitors pay taxes to incumbents to help finance the incumbents' universal service obligations. Armstrong (2001a, 2001b) argues that a well-designed universal service policy, together with cost-based access pricing, nevertheless can provide efficient incentives for entry and make-or-buy decisions. A third emerging issue is a broader definition of universal service, discussed by Crandall and Waverman (2000). There is considerable and growing political pressure to further expand the definition of universal service to encompass Internet access. Downes and Greenstein (1999) show empirically that access to Internet services is already widely available, albeit at very different speeds in different places. Cremer (2000) develops a theoretical argument that network externalities might be particularly strong for broadband Internet service. These are all likely to be among the important universal service policy issues in the coming decade.

6. APPENDIX: VARIABLE DEFINITIONS AND SUMMARY STATISTICS FOR TABLE 1

6.1 Census data

The following variables were created from the 1990 Census STF-3 files. Each variable is measured at the Census Block Group (CBG) level.

Penetration is the fraction of occupied housing units in the CBG with a telephone in the housing unit.

% Poor is the fraction of CBG population living below the poverty line.

Median income is the median household income of the CBG, measured in thousands of dollars.

% Female head of household is the fraction of households in the CBG with a female head of household.

% Senior the fraction of CBG population that is 65 years of age or older.

% Children the fraction of CBG population that is 15 years of age or younger.

% High school is the fraction of CBG population with a high school degree, including those with some college but no college degree.

% College is the fraction of CBG population with a college degree.

% Black is the fraction of CBG population that is black.

% Hispanic is the fraction of CBG population that is of Hispanic origin. If a person is black, white, Asian, etc., and also of Hispanic origin, then they are counted only as being Hispanic.

% Native the fraction of CBG population that is Native American.

% Asian the fraction of CBG population that is Asian.

% Other nonwhite the fraction of CBG population that is nonwhite and not a member of the aforementioned race categories.

Population density is the number of people, measured in thousands, per square kilometer living in the CBG.

Wire center population is the number of people, measured in thousands, living in the area serviced by the same wire center that services the CBG. This variable was created from the 1990 Census STF-3 files, but only after linking the CBGs to wire centers using data obtained from the FCC.

6.2 Climate data

In order to measure the effect of climate on telephone penetration, data from the United States Historical Climatology Network (U.S. HCN) was linked to the census data.[58] The U.S. HCN data is measured at the station level, identified by its latitude and longitude. Each CBG was assigned to the station with the minimum product of absolute differences between latitude and longitude. Data is available from 1221 stations for the 48 contiguous state, although data from Tennessee was missing. Data for Alaska, Hawaii, and the District of Columbia are not available from this source. A fully quadratic form was specified for the following variables:

Temperature is the annual mean temperature in 1989 recorded by the station, within state, nearest to the CBG.

Precipitation is the total precipitation in inches in 1989 recorded by the station, within state, nearest to the CBG.

6.3 Cost Data

The FCC has published an economic-engineering model that estimates, among other things, the forward-looking economic cost of providing basic local service.[59] This model incorporates locational data and 1996 quantity and price data into an optimization model. The cost estimation procedure is based on the FCC's TELRIC (total element long run incremental cost) methodology. The CBGs are matched to wire centers. Given the relatively small increase in telephone penetration rates in recent years, the relative forward-looking costs probably have not changed too much between 1990 and 1996, except that boundaries of wire centers do change occasionally. For given wire center assignments locational data, e.g. terrain, which are a critical determinant of cost differences, certainly remain constant.

Not every CBG can be matched to a wire center. The model uses a selection of wire centers in Bellcore's LERG database. Only wire centers which were listed as end offices, hosts or remotes, and which were not owned by wireless, long distance or competitive access providers were used. This left roughly some 12,000 wire centers, covering roughly half of the original sample of CBGs. When wire centers are matched to the CBGs for which weather data is available, roughly forty percent of the original sample of CBGs were left.

The cost variables used in the estimation are defined as follows.

Loop length is an estimate of the average length of the connection of the customer to the wire center, including distribution (the cable connecting a customer to a Serving Area Interface (SAI)) and feeder (the cable connecting an SAI to a wire center) distances.

Average forward looking cost is the FCC's estimate of the average monthly forward-looking cost of providing basic local service, including distribution, feeder and end-office switching costs, measured in dollars.

[58]The U.S. HCN data is made publicly available by the Carbon Dioxide Information Analysis Center. For more information see: Easterling, D. R., T. R. Karl, E. H. Mason, P. Y. Hughes, D. P. Bowman, and R. C. Daniels, T. A. Boden (eds.). "United States Historical Climatology Network (U.S. HCN) Monthly Temperature and Precipitation Data." ORNL/CDIAC-87, NDP-019/R3. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory. Oak Ridge, Tennessee, 1996.

[59]See Sharkey (2001) for a description of the FCC's Hybrid Proxy Cost Model.

6.4 Summary statistics

Table 5: Summary Statistics

	(I)		(II)		(III)-(V)	
	mean	s.d.	mean	s.d.	mean	s.d.
Penetration	93.9	9.0	94.4	7.9	94.3	7.8
% Poor	14.0	14.1	12.8	12.6	12.7	12.5
Median income	31.2	16.4	31.9	15.9	31.7	15.7
% Female h.o.h.	11.8	10.4	10.6	8.9	10.7	9.0
% Senior	13.3	9.2	12.9	9.0	13.1	8.8
% Children	23.8	9.2	23.7	9.0	23.6	8.8
% High School	31.8	9.5	32.1	8.9	32.2	8.7
% College	16.3	12.3	17.0	12.2	16.7	12.0
% Black	12.4	25.1	10.1	21.2	10.9	22.0
% Hispanic	7.6	16.5	7.4	15.8	5.7	13.6
% Native	0.9	4.9	0.7	3.8	0.7	3.4
% Asian	2.2	6.3	2.4	6.5	1.9	5.0
% Other nonwhite	0.1	0.6	0.1	0.5	0.1	0.5
Pop. density	2.9	4.8	1.9	5.0	2.0	5.4
W.c. population			29.7	26.3	28.3	25.7
Loop length					21.0	19.0
Average f.l. cost					31.4	25.2
Temperature					53.8	8.2
Precipitation					42.0	16.0
# Observations	222,264		116,715		95,171	

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Dkt. No _____
D. Blessing Ex. No. ___ (DCB-10)
Rebalancing Order

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-10

Order No. PSC-03-1469-FOF-TL Florida Public Service Commission; Comprised of Docket No.. 030867-TL, In re: Petition by Verizon Florida Inc. to reform intrastate network access and basic local telecommunications rates in accordance with Section 364.164, Florida Statutes; Docket No.. 030868-TL, In re: Petition by Sprint-Florida, Incorporated to reduce intrastate switched network access rates to interstate parity in revenue-neutral manner pursuant to Section 364.164(1), Florida Statutes; Docket No. 030869-TL, In re: Petition for implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.; and Docket No. 030961-TI, In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes.; Issued: December 24, 2003.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 18
Company/ Alltel
Witness: David C. Blessing (DCB-10)
Date: 12/01/05

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition by Verizon Florida Inc. to reform intrastate network access and basic local telecommunications rates in accordance with Section 364.164, Florida Statutes.	DOCKET NO. 030867-TL
In re: Petition by Sprint-Florida, Incorporated to reduce intrastate switched network access rates to interstate parity in revenue-neutral manner pursuant to Section 364.164(1), Florida Statutes.	DOCKET NO. 030868-TL
In re: Petition for implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.	DOCKET NO. 030869-TL
In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes.	DOCKET NO. 030961-TI ORDER NO. PSC-03-1469-FOF-TL ISSUED: December 24, 2003

The following Commissioners participated in the disposition of this matter:

LILA A. JABER, Chairman
J. TERRY DEASON
BRAULIO L. BAEZ
RUDOLPH "RUDY" BRADLEY
CHARLES M. DAVIDSON

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ORDER ON ACCESS CHARGE REDUCTION PETITIONS

I. INTRODUCTION AND HISTORY

The telecommunications industry is in transition from an industry characterized by regional monopolies to one characterized by national competition. For most of its history, telephone service was furnished on a monopoly basis by a single provider. In exchange for a statutory monopoly, the telephone company was subject to economic regulation that gave it the opportunity to earn a fair rate of return on its investment. In this monopoly regime, prices for long distance and other premium services were set substantially above cost based on value of service principles. At the same time, local telephone service was priced residually to advance the social policy goal of providing universal service.

Effective January 1, 1984, this monopoly regime was radically changed nationwide by the entry of the "modified final judgment"[1] which reorganized AT&T and divested it of its

[1] United States v. American Telephone and Telegraph Co., 552 F. Supp 131 (D.D.C. 1982) aff'd sub nom, Maryland v. United States, 460 U.S. 1001 (1983), as subsequently modified by United States v. Western Electric Co., 569 F. Supp. 990 (D.D.C. 1983) and United States v. Western Electric Co., 569 F. Supp. 1057 (D.D.C.), aff'd sub nom, California v. United States, 464 U.S. 1013 (1983).

local telephone companies, restricted the operating areas of the local telephone companies, and provided for competitive interstate long distance service. See, Microtel, Inc. v. Florida Public Service Commission, 483 So.2d 415, 416 (Fla. 1986)(Microtel II). In apparent anticipation of the forthcoming consent judgment in the AT&T case, and motivated by a desire to promote competitive long distance telephone service within Florida, the Legislature in 1982 amended Florida law to allow the Commission to issue certificates for competitive intrastate long distance service. Id. at 417-418. As the Florida Supreme Court recognized in Microtel Inc. v. Florida Public Service Commission, 464 So.2d 1189, 1191 (Fla. 1985)(Microtel I), the 1982 Legislature made the "'fundamental and primary policy decision' that there be competition in long distance telephone services" in Florida.

As long distance competitors entered the market, state and federal regulators instituted a system of intercarrier compensation under which long distance companies paid "access charges" to the local exchange telephone companies for the use of the local networks to originate and terminate long distance calls. As the record reflects, these access charges were initially set to take the place of the revenue that had been provided by long distance service under the monopoly regime.

A decade after the introduction of long distance competition, the landscape in the telecommunications industry changed again with the elimination, first in Florida and then nationwide, of the statutory monopoly for local exchange service. In 1995, the Florida Legislature amended Chapter 364, Florida Statutes, to allow for competition in the provision of local service. The Legislature found that "the competitive provision of telecommunications services, including local exchange service, is in the public interest and will provide customers with freedom of choice, encourage the introduction of new telecommunications service, encourage technological innovation, and encourage investment in telecommunications infrastructure." Section 364.01(3), Florida Statutes. In conjunction with the opening of the local exchange market to competition, the incumbent local exchange companies (ILECs) were permitted to elect to substitute price regulation for the former rate base, rate of return regulation. Section 364.051, Florida Statutes.

The opening of the Florida local market to competition was followed the next year by the enactment of the federal Telecommunications Act of 1996 (1996 Act). Pub. L. No. 104-104, 104th Congress 1996, 110 Stat. 56, 47 U.S.C. §§ *et. seq.* This act established a national framework to enable competitive local exchange carriers (CLECs) to enter the local telecommunications market and to allow the former Bell Operating Companies to reenter the interLATA long distance market. The purpose of the 1996 Act was to bring the benefits of competition to all telecommunications markets by creating a pro-competitive, de-regulatory national policy framework. Senate Rpt. 104-023, entitled "Telecommunications Competition" (March 30, 1995).

Over the 19 years since the introduction of long distance competition, both interstate access charges and intrastate access charges have been reduced. Despite these reductions, the record shows that intrastate access charge rates in Florida are among the highest in the nation and are substantially above interstate access charge rates. The record also shows, as further analyzed in Section VI(B) of this Order, that intrastate long distance rates in Florida (through which an IXC must recover, among other things, its intrastate access charge costs) are likewise among the highest in the nation, and are substantially above interstate long distance rates. Local service rates in Florida, however, are the lowest in the Southeast.

While the long distance market is now vigorously competitive, local wireline competition has progressed more slowly, particularly in the residential market. At the same time, wireline companies are facing increased competition from providers using alternative technologies such as wireless, cable, and voice over internet protocol (VoIP). See FPSC Annual Report on Competition (June 30, 2003).

Against this backdrop, the Florida Legislature, during the 2003 Regular Session, enacted the Tele-Competition Innovation and Infrastructure Enhancement Act (2003 Act), which became effective on May 23, 2003. In broad terms, the 2003 Act allows the Commission to consider whether allowing the ILECs to reduce their intrastate access charges to interstate levels, and to make offsetting increases in local service rates, will further the Legislature's goal of increasing competition in the local telephone market. By returning some regulation of intrastate access charges to the Commission, the Legislature has given us the tools to address the question of whether access charges in fact support artificially low local service rates that may be impairing the implementation of competition in the local telephone market.

A key provision in the 2003 Act, Section 364.164, Florida Statutes, provides a process by which ILECs may petition this Commission to reduce their intrastate switched network access rates in a revenue-neutral manner. We are required by law to issue our final order granting or denying any such petition within 90 days of the filing. In reaching our decision, Section 364.164(1), Florida Statutes, sets forth four mandatory criteria we must consider. Those criteria are:

[W]hether granting the petition will:

(a) Remove current support for basic local tele-communications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers.

(b) Induce enhanced market entry.

(c) Require intrastate switched network access rate reductions to parity over a period of not less than 2 years or more than 4 years.

(d) Be revenue neutral as defined in subsection (7),within the revenue category defined in subsection (2).

In laymen's terms, subsection (1)(d) means that any ILEC that is permitted to reduce its intrastate switched network access rates may offset those reductions through simultaneous increases in the local rates charged to its flat-rate residential and single-line business customers.

In addition, Section 364.163(2), Florida Statutes, provides a mechanism to ensure that any IXC that receives the benefits of access charge rate reductions will flow those benefits through to both residential and business customers in the form of lower intrastate long distance rates:

> Any intrastate interexchange telecommunications company whose intrastate switched access rate is reduced as a result of the rate adjustments made by a local exchange telecommunications company in accordance with s. 364.164 shall decrease its intrastate long distance revenues by the amount necessary to return the benefits of such reduction to both its residential and business customers. The intrastate interexchange telecommunications company may determine the specific intrastate rates to be decreased, provided that residential and business customers benefit from the rate decreases. Any in-state connection fee or similarly named fee shall be eliminated by July 1, 2006, provided that the timetable determined pursuant to s. 364.164(1) reduces intrastate switched network access rates in an amount that results in the elimination of such fee in a revenue-neutral manner. The tariff changes, if any, made by the intrastate interexchange telecommunications company to carry out the requirements of this subsection shall be presumed valid and shall become effective on 1 day's notice.

Section 364.163(3) gives this Commission continuing regulatory oversight regarding the access charge reduction flow-throughs described in subsection (2).

Finally, the 2003 Act amended Section 364.10 to provide increased protection to economically disadvantaged customers. This section requires any ILEC that reduces its access charges (and increases its local rates) pursuant to Section 364.164 to make its Lifeline Assistance Plan available to customers with incomes at or below 125% of the federal poverty level, up from 100% or less under the prior law.

Our jurisdiction in this matter arises from the above statutory provisions.

II. CASE BACKGROUND

On August 27, 2003, Verizon Florida Inc. (Verizon), Sprint-Florida, Incorporated (Sprint), and BellSouth Telecommunications, Inc. (BellSouth), each filed petitions pursuant to Section 364.164, Florida Statutes. Dockets Nos. 030867-TL (Verizon), 030868-TL (Sprint), and 030869-TL (BellSouth) were opened to address these petitions in the time frame provided by Section 364.164, Florida Statutes. On September 4, 2003, the Order Establishing Procedure and Consolidating Dockets for Hearing, Order No. PSC-03-0994-PCO-TL, was issued. At the September 15, 2003, Agenda Conference, the Commission decided to hold public hearings in the above referenced dockets.

On September 3, 2003, the Office of Public Counsel (OPC) filed Motions to Dismiss the Petitions in each of these dockets on the grounds that the Petitions proposed to make rate changes over one year, rather than the two year minimum required by Section 364.164(1)(c). On September 10, 2003, Verizon filed its Response to OPC's Motion to Dismiss. Also on September 10, 2003, Sprint and BellSouth filed their Joint Response to OPC's Motion to Dismiss. At the September 30, 2003, Agenda Conference, we voted to dismiss Verizon, Sprint, and BellSouth's Petitions with leave to amend within 48 hours to address the Commission's determination regarding the application of the two-year time frame in Section 364.164(1)(c), Florida Statutes. On September 30, October 1, and October 2, 2003, respectively, BellSouth, Sprint, and Verizon filed their amended petitions.

By Order No. PSC-03-1240-PCO-TL, we consolidated Docket No. 030961-TI, which was opened to address questions regarding the IXCs' flow-through to customers of any access charge reductions, into this proceeding for hearing. By Order No. PSC-03-1269-PCO-TL, the procedure in these consolidated Dockets was amended to include additional testimony filing dates and issues to reflect the consolidation of Docket No. 030961-TI. A hearing on this matter was held on December 10-12, 2003.

In this matter, we received the testimony of 26 witnesses on behalf of the ILECs, intervenors, the consumer advocates, and our own Commission staff. We also received testimony from customers at 14 customer service hearings conducted throughout the state, as well as written comments from customers submitted to the docket files associated with this case. In addition, we received into evidence 86 exhibits. We have carefully considered the evidence received in its entirety, as well as the arguments of counsel. Based thereon, we hereby render our decision on the issues presented.

III. MOTIONS

Three motions remained outstanding at the start of our hearing in this matter -- two motions for reconsideration of prior orders and one motion for entry of a summary final order. As a preliminary matter, we addressed the motions as follows:

A. Joint Petitioners Motion for Reconsideration of Order No. PSC-03-1269-PCO-TL, issued Nov. 10, 2003 - Second Order Modifying Procedure for Consolidated Dockets to Reflect Additional Docket, Associated Issues, and Filing Dates

This motion asked that the Commission reconsider the inclusion of Issues 6-10 in the Second Order Modifying Procedure. The motion argued that the inclusion of those issues, which relate to the IXCs' flow-through of any access charge reductions they receive, inappropriately imposed additional criteria on the Joint Petitioners' Petitions for switched network access rate reductions that go beyond the four mandatory criteria enumerated in Section 364.164(1). The Office of Public Counsel filed a response to this Motion on behalf of the Citizens. Upon consideration, we granted the Petitioners' request for oral argument on this Motion at the outset of the hearing.

The standard of review for a motion for reconsideration is whether the motion identifies a point of fact or law which was overlooked or which the Commission failed to consider in rendering its Order. See, Stewart Bonded Warehouse, Inc. v. Bevis, 294 So. 2d 315 (Fla. 1974);Diamond Cab Co. v. King, 146 So. 2d 889 (Fla. 1962); and Pingree v. Quaintance, 394 So. 2d 162 (Fla. 1st DCA 1981). In a motion for reconsideration, it is not appropriate to reargue matters that have already been considered. Sherwood v. State, 111 So. 2d 96 (Fla. 3rd DCA 1959); citing State ex.rel. Jaytex Realty Co. v. Green, 105 So. 2d 817 (Fla. 1st DCA 1958). Furthermore, a motion for reconsideration should not be granted "based upon an arbitrary feeling that a mistake may have been made, but should be based upon specific factual matters set forth in the record and susceptible to review." Stewart Bonded Warehouse, Inc. v. Bevis, 294 So. 2d 315, 317 (Fla. 1974). This standard is equally applicable to reconsideration by the Commission of a Prehearing Officer's order. See, Order No. PSC-96-0133-FOF-EI, issued January 29, 1996, in Docket No. 950110-EI.

Throughout this proceeding, one hotly contested issue has been whether, in making its determination to grant or deny the Petitions, the Commission can consider only the four mandatory criteria enumerated in Section 364.164(1) or whether it is also required or permitted to consider the extent to which residential customers whose local rates would be increased if the Petitions are granted are likely to benefit from offsetting long distance rate decreases. This is ultimately an issue of statutory construction which we indicated on several occasions would be considered at the conclusion of the evidentiary hearing.

The thrust of the Petitioners' motion for reconsideration is that the inclusion of Issues 6 through 10 in the Second Order Modifying Procedure improperly introduced consideration of this long distance rate impact into the proceedings on their Petitions. OPC, on the other hand, argues that these Issues were properly included, since the Commission must consider the combined impact on residential customers of any local rate increases and any long distance rate decreases.

Upon consideration, we conclude that the Motion for Reconsideration does not identify a mistake of fact or law made by the Prehearing Officer in rendering his decision. The determination about which the Joint Petitioners express concern is not one made by the Prehearing Officer in his Order. The Prehearing Officer did not impose additional requirements on the ILECs' Petitions to reduce access charges; instead, he included additional issues for consideration in this proceeding based upon our decision to consolidate Docket No. 030961-TI with Dockets Nos. 030867-TL, 030868-TL, and 030869-TL for hearing. His Order clearly set forth that this is the basis upon which he modified the schedule and the issues list for the proceeding. As such, his decision is not only correct, but needs no clarification. The decision to consolidate Docket No. 030961-TI was made by this Commission in Order No. PSC-03-1240-PCO-TP, issued November 4, 2003. Reconsideration of that decision was not requested. The Prehearing Officer's Order merely implements that decision by amending the schedule and including issues to reflect the consolidation. As for the legal issue raised by the Joint Petitioners, that being whether we should consider impacts on the toll market in making our decision on the ILECs' Petitions, that issue was not addressed by the Prehearing Officer and remains for decision by this Commission at the conclusion of the hearing. For these reasons, the Joint Motion For Reconsideration is denied.

B. OPC's Motion for Reconsideration of Order No. PSC-03-1331-FOF-TL (filed Dec. 5, 2003) / AARP's Motion for Reconsideration of Same Order (filed Dec. 8, 2003)(The Attorney General Joined in the Motions on December 9)

These motions asked that we reconsider certain language in our Order denying AARP's Motion to Dismiss these cases for failure to join the IXCs as indispensable parties. OPC and AARP argue that the language contained in the order did not accurately capture the rationale for the Commission's decision as expressed during the Commission's deliberations on that motion. A response in opposition was filed by the Joint Petitioners on December 9, 2003. We received additional argument on this Motion at the outset of the hearing.

While we do not believe that reconsideration is appropriate in this instance, upon consideration of the arguments and review of the Order itself, we do believe that some clarification is in order. It is clear that certain language included in the Order could be misconstrued. Therefore, Order No. PSC-03-1331-FOF-TL, at pages 11 and 12, is amended and clarified as reflected in the following type and strike version:

> In reaching this conclusion, we refer to the language of Section 364.164, Florida Statutes. Contrary to AARP's assertions, none of the four mandatory criteria set forth for our consideration in addressing the petitions mandates ~~necessitates~~ participation by the IXCs. ~~As plainly stated by the Legislature, t~~The first factor set forth in Section 364.164(1), Florida Statutes, for our consideration does not mandate that ~~direct~~ the Commission ~~to~~ consider how the ILECs'

proposals will affect the ***toll market*** "for the benefit of residential consumers." Instead, the plain language states that consideration should be given to whether granting the petitions will:

> (a) Remove current support for basic local telecommunications services that prevents the creation of **a more attractive local exchange market** for the benefit of residential consumers. [Emphasis added].

~~As such, the relevant market for use in making the final determination on the Petitions is the local exchange market.~~ Thus, we find that, for purposes of Section 364.164, Florida Statutes, consideration of the impact on the toll market (and resulting impact on toll customers) is not *required* for the Commission's ~~full and complete~~ determination of the Petitions.[3] In reaching this conclusion, we do not find that we are precluded from such consideration, rather we conclude only that we are not required to do so.

[3] ~~In reaching this conclusion, we do not find that we are precluded from such consideration, rather we conclude only that we are not required to do so.~~

> ~~The language of Section 364.164, Florida Statutes, appears clear; thus, under principles of statutory interpretation, this Commission need not look further to divine the Legislature's intent. Southeastern Utilities Service Co. v. Redding, 131 So.2d 1 (Fla. 1950).~~ That said, we nevertheless acknowledge AARP's contention that the Legislature considered the impacts on customers' toll bills in passing the new legislation.[4] We emphasize, though, that the Legislature did address the impact on the toll market if the Petitions are granted, but it did so through a separate section of the statutes, Section 364.163, wherein intrastate toll providers are required to pass the benefits of the access charge reductions on to their residential and business customers. This Commission is charged under that section with ensuring that reductions are, in fact, flowed through.

Based on the foregoing, Order No. PSC-03-1331-FOF-TP is clarified as set forth above.

C. Attorney General's Motion for Summary Final Order, filed Nov. 17 (AARP and OPC Joined in the Motion)

The Attorney General moved for a summary final order on the grounds that the record raises no genuine issue of fact regarding whether granting the Petitions will benefit residential consumers. Verizon, AT&T/MCI, BellSouth, and Sprint timely filed responses to the Motion. We received argument on this Motion at the hearing.

As became clear from the oral argument on this motion, the underlying contention by the Attorney General, OPC, and AARP is that Section 364.164 requires the Petitioners to demonstrate that residential consumers will benefit from long distance rate reductions, and that the prefiled testimony and exhibits showed that such benefits are not sufficient to offset the impact of the proposed local rate increases. The opponents of the motion contended that no such showing is required, and that the prefiled testimony establishes that residential customers will benefit from increased competition if the Petitions are granted.

Rule 28-106.204(4), Florida Administrative Code, provides:

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[4]At footnote 1 of the Motion, AARP states that it is in the process of having the relevant industry and legislator comments recorded and transcribed for filing at a later date. This material was officially recognized during the final hearings in these proceedings.

> Any party may move for summary final order whenever there is no genuine issue as to any material fact. The motion may be accompanied by supporting affidavits. All other parties may, within seven days of service, file a response in opposition, with or without supporting affidavits. A party moving for summary final order later than twelve days before the final hearing waives any objection to the continuance of the final hearing.

The standard for granting a summary final order is very high. The purpose of summary judgment, or in this instance summary final order, is to avoid the expense and delay of trial when no dispute exists concerning the material facts. The record is reviewed in the light most favorable to the party against whom the summary judgment is to be entered. When the movant presents a showing that no material fact on any issue is disputed, the burden shifts to his opponent to demonstrate the falsity of the showing. If the opponent does not do so, summary judgment is proper and should be affirmed. The question for determination on a motion for summary judgment is the existence or nonexistence of a material factual issue. There are two requisites for granting summary judgment: first, there must be no genuine issue of material fact, and second, one of the parties must be entitled to judgment as a matter of law on the undisputed facts. See, Trawick's Florida Practice and Procedure, §25-5, Summary Judgment Generally, Henry P. Trawick, Jr. (1999).

In summary, under Florida law, "the party moving for summary judgment is required to conclusively demonstrate the nonexistence of an issue of material fact, and . . . every possible inference must be drawn in favor of the party against whom a summary judgment is sought." Green v. CSX Transportation, Inc., 626 So. 2d 974 (Fla. 1st DCA 1993)(citing Wills v. Sears, Roebuck & Co., 351 So. 2d 29 (Fla. 1977)). Furthermore, "A summary judgment should not be granted unless the facts are so crystallized that nothing remains but questions of law." Moore v. Morris, 475 So. 2d 666 (Fla. 1985); City of Clermont, Florida v. Lake City Utility Services, Inc., 760 So. 1123 (5th DCA 2000).

The parties disagree on the proper interpretation of Section 364.164, Florida Statutes. We find, based on the pleadings, the arguments, and the prefiled testimony, there are genuine issues of material fact in dispute, regardless of whose statutory interpretation is ultimately determined to be correct. Since the motion must be viewed in the light most favorable to the parties against whom the motion is sought, the Motion must be denied in this case. In reaching this conclusion, we make no determination on the legal or factual issues to be addressed through the hearing. Rather, we conclude only that the high standard for granting a summary final order has not been met.

IV. STATUTORY INTERPRETATION

The question of the proper interpretation of Section 364.164 is one that has been raised time and again in this case in various motions, testimony, and in this Commission's own comments. We carefully withheld ruling on the question of whether Section 364.164, Florida Statutes, is ambiguous until after conclusion of the evidentiary hearing and the closing arguments of counsel. It is important to address this question before reaching the other issues in the case, because our decision will determine whether we can consider arguments and evidence presented in the case regarding the Legislative history and intent of the statute.

The law on this aspect of statutory interpretation is clear. When interpreting statutory provisions, one first should look to the provision at issue to determine whether the "language is clear and unambiguous and conveys a clear and definite meaning. . . ." Holly v. Auld, 450 So. 2d 217 (Fla. 1984), citing A.R. Douglass Inc. v. McRainey, 102 Fla. 1141 (1931). If the meaning is clear, there is no need to resort to statutory interpretation. Furthermore, an unambiguous statutory provision cannot be construed to extend, modify, or limit its express terms or its reasonable and obvious implications. Holly, at 219. However, a statute should not be given its literal reading if such reading would lead to an unreasonable conclusion. Id.

Section 364.164 sets forth the criteria we must consider in determining whether to grant the ILECs' petitions. Those criteria are as follows:

> [W]hether granting the petition will:
>
> (a) Remove current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers.
>
> (b) Induce enhanced market entry.
>
> (c) Require intrastate switched network access rate reductions to parity over a period of not less than 2 years or more than 4 years.
>
> (d) Be revenue neutral as defined in subsection (7) within the revenue category defined in subsection (2).

The ILECs argue that this language clearly expresses the Legislature's intent and, thus, is not subject to interpretation. The OPC, the Attorney General, and AARP present a vastly differing interpretation of the statute, and have offered into evidence and in their arguments the Legislative history of the bill. Each side offers tenable arguments regarding how the statute could be interpreted. We note that the lack of clarifying language or punctuation in the provisions at issue contributes to the differing interpretations. As such, having considered the arguments and the language of the statute itself, we find that the language of Section 364.164, Florida Statutes, is not clear on its face and, thus, is

subject to statutory interpretation. Having reached this conclusion, our decisions as set forth below reflect our interpretation of the Legislature's intent as gleaned from the Legislative history, including consideration of the potential impacts of granting the Petitions on the toll rates paid by residential customers.

V. SUMMARY OF DECISION

As discussed in more detail later in this order, we find and conclude, based on the record, that:

1. Intrastate access rates currently provide support for basic local telecommunications services that would be reduced by bringing such rates to parity with interstate access rates.

2. The existence of such support prevents the creation of a more attractive competitive local exchange market by keeping local rates at artificially low levels, thereby raising an artificial barrier to entry into the market by efficient competitors.

3. The elimination of such support will induce enhanced market entry into the local exchange market.

4. Enhanced market entry will result in the creation of a more competitive local exchange market that will benefit residential consumers through:

   a. increased choice of service providers;
   b. new and innovative service offerings, including bundles of local and long distance service, and bundles that may include cable TV service and high speed internet access service;
   c. technological advances;
   d. increased quality of service; and
   e. over the long run, reductions in prices for local service.

5. The ILECs' proposals will reduce intrastate switched network access rates to parity over a period of not less than two years or more than four years.

6. The ILECs' proposals will be revenue neutral within the meaning of the statute, which permits access charge reductions to be offset, dollar for dollar, by increases in basic local service rates for flat-rate residential and single-line business customers.

7. Because of the mandatory flow-through provisions of Section 364.163, approval of the plans will be financially neutral to the IXCs, who are required to reduce their intrastate toll rates and charges to consumers to offset the benefit of any access charge reductions the IXCs receive.

8. Contrary to the position taken by the Attorney General in these proceedings, the statute does not require that implementation of the proposals be "bill neutral" to any particular customer or class of customers.

9. We are not mandated by Section 364.164 to consider the impact of the proposals on toll rates paid by residential consumers. However, consistent with the legislative history of the 2003 Act, we conclude that we are permitted to do so. In this regard, we find that many residential customers will benefit directly from the elimination of in-state connection fees and reductions in per-minute intrastate toll rates. We also find that residential customers as a whole will enjoy prices for toll services that are closer to economic costs and, therefore, will have less of a repressive effect on long distance usage. We also find that under the long distance rate reduction plans offered by the IXCs, residential customers as a whole will get a proportionate share of any toll rate reductions based on their share of total access minutes of use.

10. Experience from other states that have rebalanced local and toll rates shows that approval of the ILECs' proposals will have little, if any, negative impact on the availability of universal service. While no customer likes to see a rate increase, the record shows that basic local service will continue to remain affordable for the vast majority of residential customers.

11. Although we find that it is not a benefit that we should weigh in the balance in considering whether or not to grant the Petitions, the amended Lifeline provisions in Section 364.10 will help to protect economically disadvantaged consumers from the effect of local rate increases. This protection is enhanced by the ILECs' agreement to further increase the eligibility criteria for Lifeline assistance from 125% to 135% of the federal poverty level, increasing the number of customers eligible for the program by approximately 119,000, and to protect Lifeline recipients against basic local service rate increases for four years. Although we cannot predict the future with certainty, economic theory suggests, and we are encouraged to believe, that the establishment of a more competitive local market will put downward pressure on local exchange prices that will eventually reduce the need for targeted assistance programs such as Lifeline.

The following sections set forth a detailed analysis of our decisions on the points outlined above.

VI. REMOVAL OF CURRENT SUPPORT

In this section, we address whether the ILECs' proposals meet the requirements of Section 364.164(1)(a), Florida Statutes. For clarity of analysis, we have considered these requirements in three parts: (A) what is a reasonable estimate of the level of support for basic service provided by access charges; (B) does that support prevent the creation of a more attractive local exchange market; and (C) would the creation of a more attractive local exchange market benefit residential consumers.

A. REASONABLE ESTIMATE OF SUPPORT

1. Arguments

Verizon contends that its basic local services receive support from its network access charges, and that its plan removes this support by bringing the prices of those services more in line with costs. Verizon asserts that removing support for basic local services will promote local exchange competition for the benefit of residential customers. Verizon contends that it will make residential customers more attractive to competitors and thus induce enhanced market entry, encourage innovation, and promote increased freedom of choice. Verizon asserts that the plan will also reduce intrastate access rates, thereby allowing residential customers to make more long distance calls at lower prices. Verizon, along with BellSouth and Sprint, sponsored the testimony of Dr. Kenneth Gordon addressing this issue. Verizon's witnesses Fulp and Danner also offered testimony in this regard.

Verizon states that for purposes of this proceeding, it seeks to remove $76.2 million of support from basic local telecommunication services. Verizon contends that this amount is necessary to bring its intrastate switched network access rate to parity with its interstate switched network access rate.

Likewise, Sprint argues that the level of support provided for basic local services by intrastate switched network access rates in excess of parity in Sprint's service areas is $142,073,492 per year, based upon current access minutes of use. Sprint offered the testimony of witnesses Dickerson, Felz, and Staihr on this issue.

BellSouth emphasizes that this Commission has already found that BellSouth's residential rates receive support from access charges, which is further buttressed by the detailed testimony of BellSouth's witness Bernard Shell, particularly the information in witness Shell's exhibit WBS-1 (Hearing Exhibit 53). This support from above-parity intrastate access charges ranges from $125.2 million to $136.4 million per year, depending on the method used to perform the calculation. BellSouth maintains that its proposal will remove current support for basic local telecommunications

services, and will bring the rates for basic local exchange service to a level that encourages competitive entry in the local exchange market. BellSouth argues that this is evidenced, in part, by the testimony of AT&T and Knology in this proceeding. BellSouth adds that residential customers will benefit from having new choices of providers and services that additional competition will bring and will also benefit from the pass-through of access charge reductions in the form of reduced toll rates. To address this aspect of its petition, BellSouth submitted the testimony of its witnesses Shell and Banerjee.

Knology asserts that granting these petitions will materially diminish the current support for basic local telecommunications services. Knology contends that this support prevents creation of a more competitive market. Knology asserts that diminution of the support will spur additional competition. Knology states that its experience in its existing markets provides examples of how the entry of a facilities-based competitor for telephone service expands the products available to consumers, increases the customer service levels, and promotes product and pricing competition.

AT&T and MCI agree that the ILEC proposals will remove current support for basic local telecommunications services by simultaneously reducing intrastate switched access rates that have been established at economically inefficient levels through the residential rate setting process and adjusting local exchange rates upward on a revenue neutral basis. They assert that through the process of residual ratemaking, intrastate switched access charges have been historically elevated well above their relevant economic cost and the surplus has served as residual support for basic local telecommunications services. Dr. John Mayo testified on AT&T and MCI's behalf on this point.

OPC asserts that residential basic local telephone service is not subsidized by access service or any other service. OPC contends that the ILECs' petitions, therefore, do not remove current support, because there is none. OPC further asserts that Basic Local Telecommunication Services (BLTS) are not supported by the rates for intrastate access, because the existing BLTS rates exceed their incremental costs. AARP, Common Cause, and Sugarmill Woods agree to a large extent, although they further argue that there is no support, because the loop itself is a common cost that should be fully allocated among all services that use the loop. Dr. David Gabel provided testimony on behalf of OPC addressing this issue, while Dr. Mark Cooper testified on behalf of AARP.

2. Findings and Decision

We find that the ILECs' access charge rates provide support to local exchange service. In making this determination, we accept the economic testimony of the ILECs' and IXCs' witnesses, which treat the cost of the local loop as a cost of basic local service. In particular, the testimony shows there is no economic principle requiring that the cost of that loop be allocated across other ancillary services that are provided over the loop.

We are not persuaded by the testimony of AARP and OPC's witnesses that all or some of the cost of the local loop should be shared, such that any costs shared by more than one service would be excluded from the ILECs' Total Service Long Run Incremental Cost (TSLRIC) calculations. This would be inconsistent with our past decisions, perhaps most notably in our 1998 Report on Fair and Reasonable Rates to the Legislature, that the costs associated with the local loop should not be allocated. The arguments raised by OPC and AARP have been considered and rejected in the past, and we find no new persuasive basis upon which to deviate from our consistent policy on this issue.

We note that the record raises some concern about the cost information provided in the proceeding by the ILECs. For instance, BellSouth's use of model inputs is inconsistent with past Commission decisions in the Docket No. 990649-TP, in which we established rates for unbundled network elements (UNEs). Also, we find that Verizon's use of interstate minutes to calculate switching and transport costs is problematic, and that Sprint and BellSouth's use of retail costs appears to be excessive, particularly since they do not differentiate between costs that apply to basic local service and costs that apply to all other services. Nevertheless, after weighing all the evidence, we find that the correction of these deficiencies would not alter our conclusion that local exchange rates are supported by intrastate access charge rates; that the ILECs have, in fact, provided a reasonable estimate of the level of support for basic local telecommunications service; and that their proposals appropriately remove that support as required by the statute. In reaching this decision, we do not in any way indicate agreement with the ILECs' costs, inputs, or methodologies considered herein for any purpose beyond this proceeding.

In addition, we note that AT&T/MCI witness Mayo emphasized that the statute does not require removal of a pure economic subsidy, but rather "support" for basic local service. Thus, he disputes witnesses Gabel and Cooper's arguments that there is no subsidy to be removed. We also find this argument persuasive in view of the plain language of the statute.

B. SUPPORT PREVENTS THE CREATION OF A MORE ATTRACTIVE COMPETITIVE LOCAL EXCHANGE MARKET

1. Arguments

Verizon contends that its current residential basic monthly rates are well below incremental cost, and therefore impair competition for residential customers. Verizon asserts that the availability of local service at supported prices limits the prices that competitive local providers can charge. Verizon contends that to the extent that competitive providers' costs are similar to Verizon's, the existing supported prices make it economically infeasible for those providers to compete. Dr. Gordon spoke to this issue on behalf of the three ILECs. In addition, Verizon offered the testimony of witness Danner in this regard.

Sprint contends that the presence of heavily supported residential basic local service acts as an obstacle to the creation of widespread residential local competition. The removal of this obstacle, according to Sprint, is the goal of the 2003 Act. Sprint's witness Staihr spoke to this issue.

BellSouth again contends that we have already determined that its residential rates are supported. BellSouth emphasizes that the testimony of its witness Shell lends further support to the argument that removal of the support for basic local service will bring rates to a level that encourages competition, leading to new choices for consumers, as well as reduced toll rates. BellSouth's witnesses Ruscilli and Banerjee offered additional testimony on this point.

Knology maintains that granting these petitions will materially diminish the current support for basic local telecommunications services. Knology asserts that this support prevents creation of a more competitive market and that diminution of the support will spur additional competition.

AT&T and MCI assert that the currently excessive intrastate switched access charge rate levels make it difficult for a telecommunications company to enter the local exchange market and compete against incumbent providers whose local rates are supported by access charges; the support allows incumbent providers to subject their competitors to an anticompetitive price squeeze. AT&T and MCI contend that excessive access charges further depress competition by limiting competitors' ability to compete across the full range of service categories. Dr. Mayo addressed this aspect of the ILEC Petitions on behalf of AT&T and MCI.

Although their analysis differs somewhat, OPC, AARP, Common Cause Florida, and Sugarmill Woods each contend there is no support for basic local service; therefore, raising current prices will not create a more attractive competitive local exchange market for the benefit of residential consumers. They contend that the existing levels of basic local telecommunications service rates have minimal, if any, impact on making the local exchange market more attractive to competitors. Drs. Gabel and Cooper also provided testimony in this regard on behalf of OPC and AARP, respectively.

The Commission staff offered the testimony of witness Ollila for purposes of providing additional perspective on this issue by way of the Commission's 2002 Report on Competition in Telecommunications Markets in Florida. In addition, the 2003 Report was received into the record as a stipulated exhibit.

2. Findings and Decision

Upon consideration, we agree with witness Gordon that the current level of support has allowed residential rates to remain lower than they would be in an undistorted competitive market, and that they are, in fact, lower than in other states in our region. We can find no basis in economics for the underpricing of basic service which is demand-inelastic relative to usage. Except for a limited range of residential customers, it is not economically feasible for a CLEC to price complementary products and packages in a manner that would allow it to make up for lack of profitability in the provision of basic service. As a result, there is little opportunity or ability to bundle products and services for consumers, and a very limited range of customers can truly be served on a profitable basis.

As recognized by both witness Mayo and witness Gordon, the state law, as well as the federal Telecommunications Act of 1996, shifts the utility commission's role away from historically protecting monopolists from competitors' entry and protecting consumers from the monopolist, to a role of encouraging competition. Under the old regime, utility commissions set rates for non-basic services, such as long distance, carrier switched access, and vertical features, above cost in order to hold down the price for basic local exchange service. This was in furtherance of universal service.

As witness Mayo emphasized, even as we moved toward price cap regulation, the pricing structure did not really change; thus, the prices for non-basic services continued to support basic service. Specifically, access charges were created after divestiture of AT&T to provide a source of revenue that would enable the local exchange companies to continue to keep prices low. Witness Mayo added that at the federal level, access charges have been reduced dramatically over the past 19 years, and this process has taken place for intrastate access charges in other states as well. Nevertheless, the witness emphasized that intrastate access rate levels in Florida are still in excess of their incremental cost, serving as continued support for low local service rates. As such, according to witnesses Mayo and Gordon, approving the ILECs' petitions to reduce intrastate access charges in a revenue neutral manner will, in fact, remove some of the support for local service, which will in turn make local service market entry more attractive for prospective entrants. This testimony was very compelling.

Witness Gordon further testified that the effect of having rates that are below cost is to discourage entry, as well as investment, by both new entrants and incumbents. Thus, not only is there less likelihood of competition, but of innovation as well. He emphasized that there is empirical evidence on this point, as referenced in the Ros-McDermott study he mentions in his pre-filed testimony. He also testified that in states that have implemented rebalancing, namely California, Illinois, Ohio, Massachusetts, and Maine, there was little noticeable impact on subscribership levels in spite of residential local service rate increases comparable to the increases proposed in the ILECs' petitions. In addition, he noted that, in the states that have implemented rebalancing, toll rates were lowered.

Our 2003 Competition Report shows that CLEC residential market share is only 9% in Florida, while CLEC's serve 29% of the business market. Similarly, Verizon's competition study for its territory shows that there is a 100 to 1 ratio of business versus residential customers being served by facilities-based CLECs. This drops to 10 to 1 if UNE-P and resale are taken into account. Together, these studies persuade us that competition for residential customers is currently suffering as a result of barriers to entry.

In addition, Knology's witness Boccucci specifically stated that, ". . .under current rates for local services in Florida, Knology has not been able to generate rates of return sufficient to attract the capital necessary to expand in adjacent areas to Panama City or elsewhere in Florida. If rate rebalancing is implemented, Knology has every intention to expand and compete further in Florida." He emphasized that because of Florida's low local rates, that ". . . from our investors' perspective, in the competition for the valuable CAPX or the capital expenditures, it was tough to make a business case to expand into the panhandle when we could expand into Georgia, Tennessee, Alabama and North Carolina [where local rates are higher] and be more assured that we could meet the returns that our investors expected in the marketplace."

Based on the foregoing, we find that current support provided by access charges does, in fact, impede competition in the residential local exchange markets.

C. BENEFIT TO RESIDENTIAL CONSUMERS AS CONTEMPLATED BY SECTION 364.164, FLORIDA STATUTES

1. Arguments

Verizon asserts that by moving basic local residential rates toward cost, its rate rebalancing plan will promote competition for the benefit of residential customers, which is the benefit contemplated by Section 364.164, Florida Statutes. Verizon contends that implementation of its rebalancing proposal will make these residential customers more attractive to competitors and thus induce enhanced market entry, encourage innovation, and promote increased freedom of choice. Verizon asserts that, in addition, its rebalancing plan will lower intrastate access rates and, ultimately, allow residential customers to make more long distance calls at lower prices. Again, Dr. Gordon provided testimonial support for the three ILECs on this point. In addition, Verizon's witnesses Danner and Fulp addressed this issue.

Similarly, Sprint contends that the creation of a more attractive competitive local exchange market will benefit residential consumers by giving them choices in providers, services, technologies, and pricing options. Sprint maintains that this is what consumers are demanding, and that this range of choice will only be made available through a

competitive market. Sprint offered the testimonies of witnesses Staihr and Felz on this point.

BellSouth again argues that its residential rates are supported. BellSouth emphasizes that the testimony of its witness Shell lends further support to the argument that removal of the support for basic local service will bring rates to a level that encourages competition, leading to new choices for consumers, which is the benefit contemplated by the 2003 Act, as well as reduced toll rates. BellSouth's witnesses Banerjee and Ruscilli provided testimony on this issue.

Knology states that its experience in its existing markets provides examples of how the entry of a facilities-based competitor for telephone service expands the products available to consumers, increases the customer service levels, and promotes product and pricing competition. Knology's witness Boccucci emphasizes that telecommunications services are converging, such that a wireless consumer does not really think of his or her service in terms of local versus long distance service. He envisions that with increased competition in the wireline market, the same will hold true for wireline customers. Likewise, he argues that the value for consumers in a competitive market is a converged bill with multiple telecommunications services, upgraded service quality, as well as price competition. He also added that a higher local rate will enable Knology to provide bundled packages at prices economical to seniors on fixed incomes, so that they can receive more economic and better quality service than they do today.

AT&T and MCI agree that the ILECs' proposals will benefit residential consumers as contemplated by Section 364.164, Florida Statutes. They contend that the ILECs' proposals will reduce current deterrents to local market entry and create a more level playing field, which will ultimately induce increased market entry. The result will be to provide consumers, residential and business alike, with a wider choice of providers' offerings and prices. They contend that residential consumers will further benefit from toll rate reductions and the elimination of any in-state connection fee. Dr. Mayo provided testimony addressing this point on behalf of AT&T and MCI, while witness Fonteix provided additional information on behalf of AT&T.

OPC, AARP, Common Cause Florida, and Sugarmill Woods contend that the ILECs' rebalancing petitions will not benefit residential consumers as contemplated by Section 364.164, Florida Statutes. They assert that the ILECs have not made a showing that the proposed rebalancing of basic local telecommunications service rates would create a more attractive competitive local exchange market for the benefit of residential customers, nor that market entry will be enhanced, because the ILECs' analyses are based on a model that no entrant would ever use. They argue that, moreover, any claims of benefits to consumers based on the removal or reduction of support for residential basic local

telecommunications service are moot, since no such support exists. Again, Drs. Gabel and Cooper provided testimony on this point for OPC and AARP, respectively.

Commission staff's witness Shafer testified that the ILECs' proposals will likely result in benefits for residential customers, such as increased value and choice in products.

2. Findings and Decision

Upon consideration of the evidence presented, as well as the Legislature's clear policy to enhance competition in Florida's telecommunications market, we find that the ILECs' proposals will ultimately benefit residential consumers as contemplated by Section 364.164, Florida Statutes. As evidenced by the results in other states that have engaged in rate rebalancing, the ILECs' proposals will make the residential market more economically attractive for CLECs, which should lead to an increase in choice of providers. This will be accomplished by increasing in the short term the rate at which residential service can be offered by competitors, leading to increased profit margins for CLECs serving residential customers. Witness Fonteix specifically stated that AT&T's decision to enter BellSouth's territory was ". . . predicated upon an assumption after the passage of the Act that it would be implemented." Furthermore, the witness testified that in AT&T's experience in Michigan and Georgia, where rates have already been rebalanced, although basic local service rates initially went up, in the long run, competition drove the price back down.

Companies providing bundled offerings that include both local and long distance service will benefit not only from the increased rate at which residential service can be offered on a competitive basis, but also from the decreased terminating access rate. These changes will make providing bundled packages to residential customers more economically attractive, because companies will increase their profit margin.

Again, as argued by AT&T's witness Fonteix, because the Bell incumbents are now able to enter the long distance market, it is better to proceed with access charge reform, which has been underway at the federal level for some time now. The witness emphasized that waiting will only further harm the long distance market. This testimony was consistent with that of witness Gordon, who maintained that long distance service is overpriced, because of the support provided by access charges to local service. He asserted that as prices come down for long distance service, people will respond by making more long distance calls, which he contends is a benefit to society. He concluded that:

> If the toll prices are overpriced, then there will be less calling and that constitutes a loss to society. And there's no reason to have it. It's a very expensive way to achieve the goal in Crandall's and Waverman's point. If you really want to have

> universal service and you think it's a problem, you know, a policy problem that should be addressed, better that the payments should be made directly in some fashion than by distorting the entire price structure, which is the mechanism we've used to date.

While it is uncontested that some customers will not receive a direct benefit as a result of the implementation of the ILECs' proposals, we find that Florida consumers as a whole will reap the benefits of increased competition and, ultimately, competition will serve to regulate the level of prices consumers will pay. Increased competition will lead not only to a wider choice of providers, but also to technological innovation, new service offerings, and increased quality of service to the customer. The evidence in this case shows that Knology will continue its plans to enter Florida markets if the Petitions are granted, and will consider broadening the number of Florida markets it enters, as demonstrated through the testimony of witness Boccucci. AT&T witness Fonteix has also indicated that AT&T's entry into BellSouth's territory has been largely influenced by the 2003 Legislation and the hope that with the granting of these Petitions, the raising of local rates will make Florida markets more profitable for competitors. Furthermore, witness Gordon explained that less regulation in the wireless market has not only produced lower prices, but also a beneficial impact on consumer welfare, because the use of the technology has become so prevalent.

While Section 364.164 does not mandate that we consider the degree of benefit to residential customers from long distance rate reductions, our review of the legislative history convinces us that it is within our discretion to do so. Thus, we have considered witness Ostrander's argument that the Petitioners have been unable to quantify the impact of competition, and therefore have been unable to show the benefit to customers. We reject that argument, and find that the preponderance of the evidence in the proceeding shows that the benefits to residential customers as a whole generated by the resulting decreases in long distance rates and elimination of the in-state connection fee will outweigh the increases in local rates. This benefit should be a continuing one, since the IXCs have indicated that they will flow through the reductions on a pro-rata basis according to minutes of access, and the record indicates that market forces should exert enough pressure to ensure that rates are kept low. Furthermore, as in the wireless industry, whose ability to offer bundled packages has been facilitated by the fact that they do not pay the high level of access fees that the wireline carriers do, we anticipate that the reduction in access fees will result in an increase in bundled offerings by wireline carriers and a decrease in the distinction between wireline local and long distance service.

We acknowledge, as OPC, the Attorney General and AARP have argued, that not every residential customer will get a long distance rate reduction, and those who do receive reductions will not necessarily receive reductions that totally offset the increase in their rate for local service. Such "bill neutrality" is not required by the statute and, in fact, would be

inconsistent with its plain language. First, there could never be "bill neutrality" unless every residential customer made exactly the same number of long distance calls and could therefore share per capita in any long distance rate decreases. Second, Section 364.164 achieves revenue neutrality to the ILEC by permitting it to increase rates for flat-rate residential and single-line business service. Section 364.163, Florida Statutes, in contrast, gives the IXCs discretion in where to flow through their long distance rate decreases so long as some portion of the benefit goes to residential and business customers. As discussed in Section X(D), we find that the IXCs' proposals to flow through these reductions between business and residential customers in proportion to their access minutes of use complies with both the language and spirit of the statute.

Also on this issue, we acknowledge that the testimony from the public hearings was mixed. Many customers did not believe that the ILEC proposals would benefit them, but others were hopeful that they would see competition in their area. Generally, the written comments we received tended to be unfavorable. However, when considered with the economic testimony received through our technical hearing, we find that customers as a whole will benefit as contemplated by the statute. As noted by witness Boccucci, customers will get better quality service for the products they choose, as well as a wider variety of products and providers. The evidence also shows that even those customers that use calling cards or dial-around service will receive benefits from increased competition, as will older citizens that use 1+ calling.

We also acknowledge the customer testimony critical of extended calling service (ECS) rates. In recognition of the concerns raised, we direct our staff to organize a Commission workshop to discuss the history of ECS, the current state of the law on ECS, and what role, if any, ECS has in today's market. The Petitioners have all agreed to participate fully in this workshop. In addition, it is notable that Sprint's petition includes a five-free-call allowance for ECS.

Although we find that it is not a benefit that we should weigh in the balance in considering whether or not to grant the Petitions, we observe that the amended Lifeline provisions in Section 364.10 will help to protect economically disadvantaged consumers from the effect of local rate increases. The use of targeted assistance, rather than implicit rate subsidies, to address this social issue will result in more efficient pricing, which will benefit the competitive market, spur innovations and new product offerings. This is the benefit contemplated by the Legislature when it enacted this legislation and is further supported by the testimony of AT&T/MCI's witness Mayo. As noted by the witness, the ability to target assistance is far more effective at promoting universal service objectives. The witness also testified that targeted assistance is more economically efficient than continuation of implicit support from access charge prices. We agree, and expect that, over time, competition should take care of those protected by Lifeline, in spite of the current limited duration that these customers are protected from the local increases at

issue here. The evidence shows that even with the proposed local rate increases, there will not be a significant number of customers that drop off the network. While the need for continued targeted assistance for some customers may foster its own social welfare concerns, those concerns must be balanced with the Legislature's clear intent to move Florida's telecommunications markets towards increased competition.

Furthermore, Dr. Cooper acknowledged that Exhibit 85 indicates that many seniors on fixed incomes take a number of additional services, such as cellular service, cable service, and Internet service. This indicates not only a likelihood that the increases proposed are within the zone of affordability for this segment of consumers, but also, as indicated by witness Boccucci, demonstrates that this segment in particular may see increased benefits as a result of bundled competitive offerings. Similarly, the evidence shows that 53% to 72% of Lifeline customers served by the Petitioners purchase one or more ancillary services.

As argued by witness Mayo, in approaching this task we must balance "hard-headed" economic principles with "soft-hearted" social welfare goals. It is the application of sound economic principles that will bring efficiencies, and as a result, competition to the telecommunications market, while the statute itself provides for targeted assistance that will assist those unable to afford the proposed increases.[5] At the end of the day, capitalism and the free market will maximize benefits to consumers in a way that regulation cannot. That is not, however, to say that the companies should not be encouraged to consider their social welfare obligations in targeting assistance to customers and coming up with new ideas to address the needs of the economically disadvantaged.

In the end, we find that the ILECs' proposals meet the statutory requirement set forth in Section 364.164(1)(a), Florida Statutes, providing required benefit of a more attractive
competitive telecommunications market for Florida consumers.

VII. INDUCE ENHANCED MARKET ENTRY

In this section, we address whether the ILECs' proposals will induce enhanced market entry as required by Section 364.164(1)(b), Florida Statutes.

A. Arguments

5 It is noteworthy that the ILECs have also agreed to the increase the number of customers to whom Lifeline is available to those whose income is 135% or less of the federal poverty level. This increases the pool of Lifeline eligible customers by approximately 119,000 when compared to the 125% standard required by Section 364.10.

BellSouth states that by removing implicit support from basic local exchange rates, competitors will have increased business opportunities to attract new customers and offer new products, services, and bundles. BellSouth contends that competitors base their entry decisions on whether or not they can at least match the rates charged by ILECs. BellSouth argues that if these rates are lowered artificially by subsidies, but the incremental costs do not change, then competitors are likely to be deterred from entering the market. BellSouth concludes that this situation limits competition. BellSouth witness Banerjee offered testimony in this regard.

BellSouth further explains that there will never be competitive alternatives for customers who are receiving service at a price below the relevant cost of providing that service. As the price of service is raised to, and above, its relevant costs, such customers become more attractive to competitors, according to BellSouth witness Ruscilli.

Witness Gordon contends that when the price of services increases, a cash flow analysis would show that the investment project becomes more profitable (or less of a loss) and, thus, more attractive for new market entrants. Dr. Gordon adds that technology is changing so rapidly that competitive markets will do a much better job than a monopoly would of discovering which technologies can or cannot succeed in the long run. Dr. Gordon further opines that in order for the lowest cost mix of technologies to remain in the market, price and the signals it sends must not be distorted and must reflect the underlying cost of providing service.

BellSouth emphasizes that lowering intrastate access rates to parity with interstate rates eliminates an artificial discrepancy between two nearly identical services. Lower intrastate access rates make long distance calling more attractive for customers and competitors who wish to bundle long distance service with local service. BellSouth witness Banerjee testifies that the unevenness of the business market versus the residential market entry is attributable in large part to the relationship between end-user rates for basic local telephone service and UNE/UNE-P rates. Dr. Banerjee explains that generally the margins are far more substantial for business service. Unconstrained by public policy or regulation, the CLECs have gravitated naturally to business markets. As indicated by Dr. Gordon, the problem of an unattractive residential market may be worse in Florida than in other states because these other states have higher residential rates, indicating a greater need to rebalance the rates in Florida.

Verizon states that its rate rebalancing plan will bring the prices of its basic local services more in line with costs. Verizon asserts that prices that more closely reflect underlying costs, such as those proposed in its rate rebalancing plan, will increase the likelihood that competitive providers can offer services at a price equal to or lower than that offered by Verizon, and still remain profitable. Verizon contends that as a result, the reformed prices proposed in Verizon's rate rebalancing plan will make the local exchange market more attractive to competitors and induce enhanced market entry.

Verizon further contends that by removing implicit support from basic local exchange rates, competitors will be enticed into the market. Verizon contends that Knology's testimony that it decided to enter the Florida market following the passage of the access reduction legislation demonstrates that Verizon's rebalancing proposal will encourage competitive entry. Also, Verizon cites to Dr. Gordon's testimony, which includes statistical studies demonstrating that rebalancing will have a positive effect on competitive entry.

Sprint concurs with BellSouth and Verizon, stating that CLECs will benefit from the higher residential basic prices, without being required to reduce their own intrastate access prices. Sprint contends that rebalancing reduces risk for CLECs, improving the cash flow equation for serving residential customers. Sprint witness Staihr testifies that rebalancing rates for basic local service will create a situation where competitors will find that, on average, a larger percentage of the residential market will be financially attractive to serve. Witness Staihr states further that the current artificially low prices are unsustainable in the face of competition, and they come at a cost: (1) fewer options among services; (2) less innovation; and (3) in large portions of Sprint's territory, no competitive choices. Sprint concludes that rebalancing will induce enhanced market entry, thereby providing customers with the benefits of more choices, enhanced service offerings and greater innovation.

Knology states that the ILEC petitions should be granted because that decision will help to implement the policy underlying Section 364.164, Florida Statutes, and it will enhance the competitive choice available to Florida citizens. Knology identifies itself as a prime example of how granting the ILECs' Petitions will induce enhanced competition. As stated previously, Knology is a facilities-based intermodal competitor offering voice, video and data services over hybrid fiber coax (HFC) and fiber to the curb (FTTC) network in Panama City, with plans to expand in Pinellas County, Florida. Knology has been providing telecommunications services in Florida since 1997 and is currently providing its services to over 275,000 residential and business customers in Florida. Knology's witness Boccucci testified, however, that Knology's decisions on whether to further expand service in other Florida markets will be greatly influenced by whether or not the ILECs' Petitions are granted.

Knology witness Boccucci testified that the 2003 Act creates the regulatory environment necessary to attract capital investment to expand telephone competition in Florida. Knology contends that granting the ILEC petitions will allow it to attract and deploy new capital investment in Florida, thereby offering consumers a choice in facilities-based providers for new and advanced high-tech services. Knology asserts, however, that if the petitions are not granted, it will be forced to deploy capital in states with more favorable market conditions as it has done in the past.

AT&T and MCI state that economic theory demonstrates that a decrease in overpriced access charges together with an increase in the retail price of residential service will encourage market entry. AT&T and MCI contend that prices are a key signal to prospective entrants regarding the desirability of a particular market. Higher prices relative to cost provide greater inducements for

entry. AT&T and MCI contend further that bundled offerings are undermined by excessive access charges, because the lower bound to which competitors can drive prices is defined by the artificially high level of access charges. The presence of excessive access charges will limit the ability of competitors to enter the market. AT&T/MCI witness Mayo offered testimony in this regard. Dr. Mayo opines that the reduction of existing access support will also make the market more attractive for traditional long distance companies to enter the telecommunications market.

Witnesses Mayo and Fonteix testified that the reduction and eventual elimination of the access support is critical to sustainable competition as it will allow CLECs to compete on a more equal footing. Witness Mayo explains that the anemic CLEC market share for residential customers provides prima facie evidence that low residential prices are inhibiting competitive entry.

AT&T states further that reducing intrastate access charges to parity will significantly reduce the ILECs' advantage of receiving large access charge subsidies, thereby moving ILECs and competitors closer to an equal footing and enhancing competition.

OPC responds that competition will not be enhanced to the residential consumer's benefit, although the ILECs' revenue from inelastic basic local service will be enhanced and the respective ILEC's market share will increase using revenues as a basis of measurement, according to OPC witness Ostrander. Witness Ostrander further contends that there will be no new or unique service introductions and no uniquely associated benefits of capital investment. OPC witness Gabel states that entry decisions are made on the basis of the expected total revenues and costs of all services an entrant can offer, not just one service. If total revenues cover total costs, it is completely irrelevant to a firm's decision to enter a market if one of the components of the offering (e.g. basic local service) may produce a loss according to some measure. Therefore, OPC surmises that a rise in total revenue from current levels may not be sufficient to allow entrants to overcome existing competitive barriers.

AARP concurs with OPC in its basic position that granting the ILECs' petitions will not induce enhanced market entry or increase competition. AARP witness Cooper argues that the Legislature intended that the ILECs be required to demonstrate that competition would, in fact, occur, as opposed to simply being more likely to occur, if the Petitions are approved. Witness Cooper further argues that none of the companies have provided such proof for any of their geographic areas. AARP contends that competition for bundled service is where the focus is in telecommunications. Therefore, AARP concludes that the shifting of costs from intraLATA long distance to basic service will have little, if any, impact on this competition since both are in the bundle.

However, Commission Staff witness Shafer testified that the likelihood of increased market entry is improved by granting the rebalancing petitions, particularly in those markets where profitability is marginal. Witness Shafer states that there appears to be a relationship between the subsidy and market entry, indicating that the removal of the subsidy will also increase market entry. Witness Shafer concludes that one can reasonably expect the ILECs' petitions will create additional

market entry, particularly in markets that, to date, have been only marginally profitable or slightly unprofitable.

B. Findings and Decision

Upon consideration, we are persuaded that granting the ILEC petitions will induce enhanced market entry.

There are two types of evidence that the parties have presented in this case: empirical, which is based on real-life scenarios, and economic theory. We believe that the ILECs have offered strong theoretical and empirical evidence that the proposed changes to intrastate access charges and basic local service rates will improve the level of competition in many markets. The ILECs' witness Gordon testified that when the price of services increases, a cash flow analysis would show that investment in the market becomes more profitable and, thus, more attractive for market entry. BellSouth explains that if these rates are lowered artificially by subsidies but the incremental costs do not change, then competitors ineligible to receive the subsidy are likely to be deterred from entering the market. In addition, AT&T and MCI indicate that the reduction and eventual elimination of the access support is critical to sustainable competition as it will allow CLECs to compete on equal footing with the ILECs. We find that these arguments compelling. We conclude from the evidence presented that entry into the local telephone market is deterred if the ILECs' local service prices are below cost and that rate rebalancing is critical to actually promoting competition.

While OPC and AARP have expressed doubt about the effect that a reduction in access charges will have on competition, they have failed to convince us that these rate reductions will not induce enhanced market entry. To the contrary, Knology presents a model case on the impact that these reductions have had and will have on market entry by CLECs. Witness Boccucci testified that the granting of the ILEC petitions will allow Knology to attract and deploy new capital in Florida, thereby offering consumers a choice in facilities-based providers for new and advanced high-tech services. In addition, AT&T indicated that it has entered the BellSouth territory as a result of the 2003 Act.

We are persuaded that companies like Knology and AT&T provide the empirical evidence of how the ILECs' proposals will increase competition. We note that poor profitability, or limited profitability, is the main deterrent to market entry. We conclude that the evidence presented by the ILECs demonstrates that granting the petitions will induce enhanced market entry, thereby promoting competition, as required by Section 364.164(1)(b), Florida Statutes.

For almost 20 years, the telecommunications industry has been in transition from a monopolistic regime to a competitive one. While changes to Florida law and enactment of the Telecommunications Act of 1996 have made great strides in promoting competition, there is still a lack of widespread competition in the residential local exchange market. Implementation of the access reductions and offsetting rate increases permitted by the 2003 Act should serve to enhance competition in this important market.

Based on the foregoing, we find that the existing rate structure impairs competition for residential customers. Granting the ILECs' petitions will result in more attractive pricing for basic local telephone service, providing market entry opportunities for competitors that have been constrained by inefficient pricing in the past. Thus, we find that the petitions filed by BellSouth, Verizon and Sprint to reduce intrastate switched network access charges will induce enhanced market entry.

VIII. PARITY

In this section, we address the requirement of Section 364.164(1)(c) that any plan provide for intrastate access rates to be reduced to parity with interstate rates over a period of not less than two years or more than four years.

A. Arguments

Verizon contends that its proposal will reduce intrastate switched network access rates to interstate parity over a period of not less than two years or more than four years. Specifically, Verizon proposes to reduce its composite intrastate access total average revenue per minute (ARPM) from $.0485441 to $.0117043 in three increments over two years. The total Verizon reduction would be $76.2 million.

There was conflicting testimony in the record regarding whether Verizon's inclusion of its non-traffic sensitive interstate presubscribed interexchange carrier charge (PICC) in the calculation of its switched access charge reduction was appropriate. Verizon's witness Fulp testified that the PICC was included because its interstate access rates include both traffic sensitive and non-traffic sensitive charges. Witness Fulp asserts that the 2003 Act permits the inclusion of the PICC, since the 2003 Act defines the term "intrastate switched access rate" to include the carrier common line charge and the PICC is a federal common line charge. He asserts that because the Act includes common line charges in Verizon's intrastate access rates, the analogous PICC federal common line charge must be included in Verizon's calculation of the interstate ARPM for a consistent comparison.

Verizon's witness Fulp asserts that if the PICC is excluded from its calculation, Verizon would have to reduce its composite intrastate access rate by a greater amount than originally proposed. As such, to preserve revenue neutrality, Verizon's basic local rates would have to increase more than its original proposal. Specifically, the witness explained that if Verizon were to exclude the PICC from the parity calculation, Verizon would have to reduce its access revenues by $12,679,052 more than originally proposed, and, consequently, Verizon would have to increase its basic local revenues by a corresponding amount. The result would be an increase to Verizon's basic local rates of $0.86 more than Verizon originally proposed.

AT&T and MCI assert that Verizon's proposal does not correctly reduce its intrastate switched access rates to interstate parity. AT&T witness Fonteix contends that Verizon's inclusion of the PICC is inappropriate for two reasons. He contends that the PICC is not part of the intrastate rate elements. Witness Fonteix asserts that even if the PICC was appropriate for inclusion in the calculation, Verizon should have used the interstate minutes of use in calculating the ARPM rather than the intrastate minutes of use. Finally, Witness Fonteix argues that the PICC should have been excluded because the PICC charge applies to multiline business customers and the access charge reductions allow Verizon to collect business line revenue from all Florida residents.

AARP, Common Cause Florida, and Sugarmill Woods also contend that Verizon's inclusion of the interstate PICC end-user charge in its calculation of intrastate access charges for the purpose of rebalancing means that Verizon has failed to comply with the provisions of the Act requiring parity and revenue neutrality. They assert that Verizon's petition should be denied on these grounds.

Sprint asserts that its proposal will reduce intrastate switched network access rates to interstate parity over a period of not less than two years or more than four. Sprint contends that its petition, testimony, and exhibits demonstrate that rebalancing prices over a two-year period (three annual increments) will provide the marketplace with the appropriate competitive signals and will not result in consumer rate shock. Sprint's initial proposal was to reduce its access rate by $62,319,890 the first year, $56,211,862 the second year, and $23,541,711 the third year. Sprint's total proposed reduction is $125.2 million. However, during closing arguments Sprint agreed to spread its reduction and corresponding increase in four steps over a period of three years, consistent with the position advocated by Commission staff witness Shafer. Under Sprint's revised proposal, the basic local telecommunications services increases will be $2.25 the first year, $2.25 the second year, $1.50 the third year, and $0.86 the fourth year.

BellSouth contends that its proposal will reduce intrastate switched network access rates to interstate parity over a period of not less than two years or more than four. BellSouth asserts that its proposed increases will occur over three installments, 1st quarter 2004, 1st quarter 2005, and 1st quarter 2006. BellSouth presents two alternative methodologies by which parity can be achieved: "mirroring" and the "typical network." Witness Ruscilli testified that BellSouth's proposed reductions under either methodology will be 40% in the 1st quarter of 2004, 35% in the 1st quarter of 2005, and 25% in the 1st quarter of 2006. Witness Ruscilli further testified that BellSouth's proposal reaches parity in 24 months, consistent with the requirement in Section 364.164(1)(c), Florida Statutes, that parity be reached in not less than 2 years and not more than 4 years.

AT&T and MCI assert that BellSouth's "mirroring" proposal appears to correctly reduce its switched access rates to interstate parity, but they contend that BellSouth's "typical network" proposal does not. Witness Fonteix explains that BellSouth's "mirroring" methodology appropriately quantifies the revenue impact of the intrastate rate reductions necessary to achieve parity by multiplying the demand times the difference between its intrastate and interstate tariffed rates. However, witness Fonteix asserts that BellSouth's "typical network" methodology is inappropriate because it targets only a select set of rate elements to equal interstate rate levels, and thus fails to address all of the rate elements in the statutory definition of intrastate switched network access rate.

Witness Shafer contends that Sprint should extend its implementation of access reductions and increases to basic local service rates by 12 months in order to mitigate rate shock to consumers. Witness Shafer testified that while the statute did not directly address or define rate shock, the statute does provide for a transition period for the access charge and basic local service rate adjustments of not less than 2 years and not more than 4 years. He asserts that due to this range it is reasonable to infer that the Legislature recognized the concept of rate shock or rate reasonableness. Witness Shafer asserts that it would be appropriate for Sprint to implement an additional incremental rate adjustment 36 months after the initial adjustment in order to complete its transition to parity. He argues that this would put Sprint's residential customers more on par with those of BellSouth and Verizon in terms of the amount of the increase they receive at any one time.

B. Findings and Decision

Section 364.164(1)(c), Florida Statutes, requires that we consider whether the Petitions will require intrastate switched network access rate reductions to parity over a period of not less than 2 years or more than 4 years. We find that each of the three amended Petitions meets the requirement of 364.164(1)(c), Florida Statutes.

As noted above, there was testimony regarding whether it was appropriate for Verizon to include the PICC in its access charge reduction calculation. Section 364.164(6), Florida Statutes,

defines the term "intrastate switched network access rate" as:

> . . . the composite of the originating and terminating network access rate for carrier common line, local channel/entrance facility, switched common transport, access tandem switching, interconnection charge, signaling, information surcharge, and local switching.
> (Emphasis added.)

Based on the definition in the statute, as well as the testimony of witness Fulp, we are persuaded that the PICC can be included in the calculation of the interstate rate target, since it was developed to recover nontraffic sensitive charges that were originally in the traffic sensitive carrier common line charge. In construing the statute in this manner, we are mindful that the interpretation advocated by other parties would result in a higher overall charge to the consumer. Thus, we conclude that Verizon's explanation for inclusion of the PICC is not inconsistent with the statute and find that Verizon's methodology for calculating its switched access charge reduction complies with Section 364.164(1)(c), Florida Statutes.

We note that witness Shafer testified that it would be appropriate for Sprint to implement an additional incremental rate adjustment 36 months after the initial adjustment in order to complete its transition to parity. However, we find that Sprint's original proposal met the criteria set forth in Section 364.164(1)(c), Florida Statutes. We also note that Sprint subsequently agreed to spread its reduction and corresponding increase over a period of three years and that this revised proposal also meets the statutory criteria.

Finally, we address which of BellSouth's methodologies, "mirroring" or "typical network," is the appropriate method to be applied in the next section. However, we find that either method meets the "parity" criteria set forth in Section 364.164(1)(c), Florida Statutes.

IX. REVENUE NEUTRALITY

In this section, we address whether the ILECs' proposals will achieve revenue neutrality as required by Section 364.164(1)(d), Florida Statutes.

A. Arguments

Verizon contends that its rate rebalancing plan is revenue neutral, as defined in the statute. Verizon asserts the plan will reduce Verizon's intrastate switched network access rates by $76.2 million and offset that reduction with a corresponding increase in basic local rates. Verizon proposes incremental residential local service rate increases of $1.58 in its first increment, $1.58 in its second increment, and $1.57 in its third increment.[6] Verizon asserts that single-line business recurring rates will be raised to $32.00 per month. Verizon proposes to raise its network establishment charge and central office connection charges by $5.00 over three increments. Verizon proposes to raise its non-recurring single line business network establishment charges by $0.10.

Sprint asserts that, as demonstrated by the testimony and exhibits it filed, rebalancing will be accomplished in a revenue neutral manner. Sprint testified that it will be reducing its switched network access charges by a total of $142.1 million. Sprint initially proposed basic residential rate increases of $2.95 for increment one, $2.75 for increment two, and $1.16 for increment three for a total of $6.86. However, as noted previously, Sprint agreed in its closing argument to four incremental increases of $2.25 in 2004, $2.25 in 2005, $1.36 in 2006, and $1.00 in 2007. Sprint also proposes to increase its single-line business rates by $2.70 in the first increment, $2.40 in the second increment, and $0.90 in the third increment.

BellSouth argues that its proposal, using either methodology, reflects a reduction in intrastate access that will be rebalanced through increases in basic local exchange rates. Witness Hendrix explains that the "mirroring" methodology actually mirrors the recurring rate elements listed in Section 364.164(6), namely the carrier common line, local channel/entrance facility, switched common transport, access tandem switching, interconnection charge, signaling, information surcharge, and local switching. He testified that the revenue impact of reducing these elements to interstate parity is $136.4 million. Under the "mirroring" methodology, BellSouth would raise residential recurring rates a $1.39 in the first increase, $1.38 in the second increase, and $1.09 in the

[6] We note that Verizon in its closing argument agreed to increase the amount it recoups through non-recurring revenues from $1.2 million to $2.4 million, so that basic local rates will be raised by $1.2 million less than originally requested.

third increase, for a total of $3.86 per month. BellSouth proposes to raise single line business to $25 (rate groups 1-3), $28 (rate groups 4-6), and $30.20 (rate groups 7-11, X2, X4) in two equal installments. BellSouth also proposes to raise its non-recurring charges in three installments.

Witness Hendrix also explained that BellSouth's "typical network" methodology achieves parity by comparison of the "typical network" composite rate for interstate switched access with the composite rate for intrastate switched network access utilizing the rate elements in BellSouth's annual filing with this Commission, the Florida Access and Toll Report, Tables 1 and 2. He further testified that the revenue reduction resulting from the achievement of parity using the "typical network" methodology is $125.2 million. Under the "typical network" methodology, BellSouth would raise residential recurring rates a total of $3.50; $1.25 for the first increase, $1.25 for the second increase; and $1.00 for the third increase.[7] BellSouth's proposal to raise single line business rates remains the same as set forth under the "mirroring" methodology, as does its proposed increase in non-recurring charges.

Witness Hendrix asserts that the difference in the revenue impact between these two methodologies stems from the number of rate elements utilized in each methodology. He contends that both methodologies use the most recent 12-months' demand to determine the intrastate switched network access revenue reduction. He asserts that the "mirroring" methodology uses all of the recurring switched network access rate elements, whereas the "typical network" methodology uses the limited, specific rate elements that are considered to be representative of averages for BellSouth's network. Witness Hendrix testified that use of composites from a typical network is consistent with the Commission's past practice for determination of switched access revenue reductions.

AT&T and MCI contend that the ILECs' rebalancing proposals appear to be revenue neutral notwithstanding any failures to correctly reach interstate parity. Under the parity section, AT&T and MCI argued that BellSouth's "mirroring" methodology, but not the "typical network" methodology, meets the criteria for parity. As noted previously, witness Fonteix claims that BellSouth's "typical network" methodology targets only a select set of rate elements to equal interstate rate levels, and thus fails to address all of the rate elements in the statutory definition of intrastate switched network access rate.

[7]BellSouth agreed to increase its non-recurring charge so that the single line residential rates would be lowered by approximately $0.36.

AARP, Common Cause Florida, and Sugarmill Woods assert that the ILECs have not substantiated that their respective intrastate long distance rate reductions for residential customers will equal their corresponding basic long distance telecommunications service increases. They further assert that Verizon's inclusion of the interstate PICC end-user charge in its calculation of intrastate access charges for the purpose of rebalancing results in Verizon's failure to comply with the provisions of the Act requiring both parity and revenue neutrality. They conclude that Verizon's petition should be denied on these grounds.

The Attorney General argues that the ILECs have not substantiated that their respective intrastate long distance rate reductions for residential customers will equal their corresponding basic local telecommunications services increase. He argues that the ILECs have failed to demonstrate that the increase is revenue neutral.

B. Findings and Decision

AARP, Common Cause Florida, and Sugarmill Woods, articulate their specific position that because the PICC should not have been included in Verizon's switched network access charge reduction, Verizon's petition is not revenue neutral. For the reasons noted in the previous section, we find that it is appropriate for Verizon to include the PICC in its switched network access charge reduction calculation. Given that the PICC is appropriately included, we find that Verizon's proposed revenue reduction and basic rate increases are revenue neutral. Thus, we find that Verizon's proposal meets the criteria set forth in Section 364.164(1)(d), Florida Statutes. We also find that Sprint's proposed revenue reduction and basic rate increases are revenue neutral.

BellSouth has proposed two methodologies, "mirroring" and "typical network," which could be used to achieve revenue neutrality. We find that both the "mirroring" and "typical network" methodologies meet the statutory requirements for revenue neutrality. We note that the "typical network" methodology provides for less of an increase in basic local residential rates. Thus, we find it appropriate to approve the "typical network" methodology as the methodology which has a lesser impact on the local rates. In addition, we find that BellSouth's proposal meets the criteria set forth in Section 364.164 (1)(d), Florida Statutes.

Section 364.164(1)(d), Florida Statutes, requires that we consider whether approving the ILECs' proposals will be revenue neutral as defined in subsection (7) within the revenue category defined in subsection (2). Subsection (7) states that "revenue neutrality" means that the total revenue within the revenue category established by the statute remains the same before and after the local exchange telecommunications company implements any rate adjustments under this section. Subsection (2) states that once the ILEC petitions are granted, the local exchange telecommunications company is authorized to immediately implement a revenue category mechanism consisting of basic

local telecommunications service revenues and intrastate switched network access revenues to achieve revenue neutrality. We find that each of the three amended Petitions meet the revenue neutrality requirement of 364.164(1)(d), Florida Statutes.

Furthermore, contrary to the position taken by the Attorney General in these proceedings as further elucidated in Section VI(C) of this Order, we find the statute does not require that implementation of the proposals be "bill neutral" to any particular customer or class of customers.

X. FLOW-THROUGH CONSIDERATIONS

In this section, we consider the proper application of Section 364.163, Florida Statutes. We note that for each of the flow-through issues, Common Cause Florida and Sugarmill Woods adopted the position of AARP.

A. Applicability and Content of Flow-Through Tariffs.

This section addresses which IXCs should be required to file flow-through tariffs and what information should accompany those filings.

1. Argument

AT&T and MCI argue that all IXCs should be required to flow through the switched access reductions they receive in order to keep long distance carriers on a level playing field. For competitive neutrality, any flow-through conditions imposed must be applied to all IXCs. However, AT&T and MCI would not be opposed to a de minimus threshold established by this Commission for those IXCs for which the flow-through would have no meaningful impact. Such threshold, however, should be set sufficiently low to allow only those IXCs with very low volume of access use to qualify.

BellSouth Long Distance notes that Section 364.163, Florida Statutes, requires that all IXCs who benefit from the access reductions must flow through the benefits. Also, a company's tariff filings should specify the rates to be reduced and contain a statement of the particular company's corresponding anticipated revenue reduction.

Sprint Communications Company's conditional position is that any IXC paying more than $1 million in access charges should be required to demonstrate that the required flow-through has occurred. It is not clear that the demonstration of flow-through should occur in the tariff filings. The demonstration of compliance with the statutory requirements should be up to each company and should insure that confidentiality is maintained where needed. Tariffs should reflect rates and charges that flow through benefits of reduced access charge prices.

Verizon Long Distance argues that any IXC that receives the benefit of intrastate switched access rate reductions must file intrastate tariffs (if tariff filings are required) flowing through such reductions. An IXC reseller should not be required to reduce prices to its customers unless it receives a reduction in the prices it is charged by its facilities-based supplier. IXCs should have the discretion to determine how to flow through the access charge reductions by lowering the in-state per minute rates, or monthly recurring plan charges, or both. If this Commission should decide to deregulate long distance services and eliminate long distance tariffing obligations, Verizon contends the reductions should be passed through to end users under end user service agreements.

OPC and AARP urge that all IXCs in Florida should be required to file tariffs and flow through the impacts of access rate reductions, except for those IXCs whose intrastate access expense reduction is $100 or less, per month. Those IXCs which are not required to flow through the reductions should attest to such, via a letter filed with this Commission. These flow-through reductions should be directed to residential customers in the same proportion as the basic local telephone service revenue increases proposed by the ILECs. Included in these tariff filings should be the information delineated in the testimony of witness Ostrander.

The Attorney General argues that all IXCs in Florida should be required to file tariffs and flow through the impacts of access rate reductions, except for those IXCs whose intrastate access expense reduction is $100 or less, per month. Those IXCs which are not required to flow through the reductions should attest to such, via a letter filed with this Commission.

2. Findings and Decision

There appears to be little disagreement among the parties as to the fact that the savings must be flowed through. There is disagreement, however, as to the type of documentation that should be required to demonstrate that this requirement has been met.

Upon consideration, all IXCs that paid $1 million or more in intrastate switched access charges within the most recent 12 month period shall include in their tariff filings: (1) a calculation of the dollar benefit associated with the LEC's intrastate access rate reductions; (2) separate demonstrations that residential and business long distance rates have been reduced and the estimated annualized revenue effect, residential and business, including how those estimates were made; and (3) a demonstration that all rate reductions have been flowed through.

Further, IXCs that paid less than $1 million in intrastate switched access charges within the most recent 12-month period shall include in their tariff filings a letter certifying that they paid less than $1 million in intrastate switched access charges within the most recent 12 month period, and that they have complied with each of the flow-through requirements as specified in Section 364.163(2), Florida Statutes. Any IXC whose intrastate switched access expense reduction is $100 or less per month shall not be obligated to flow through its reduction, but must attest to such through a letter filed with this Commission.

Finally, we direct our staff to work with the parties on an appropriate reporting format with consideration given to the formats used to demonstrate the 1998 access charge reduction flow throughs. In addition, our staff shall be diligent in assuring compliance with the requirements of this Order.

A. Timing

This section of our Order addresses the appropriate timing for filing of the IXC flow-through tariffs required by this Order.

1. Argument

AT&T and MCI state that it is unnecessary to set the exact same filing dates for both the ILECs and IXCs. They maintain the statute clearly requires the IXC's revenues to be reduced by the amount of access reductions it receives, but does not specify a time frame for making the reduction. They believe IXCs need a sufficient amount of time to both calculate the savings they will receive and to prepare tariffs for filing. As such, they argue that IXCs should be allowed 60 days from the date the ILEC files its access tariff revisions to file any IXC tariff revisions for flow-through. If this Commission chooses to mandate the ILEC and IXC tariffs be effective simultaneously, the ILEC access tariff revisions should be filed 60 days in advance of the effective date so that IXCs have the time necessary to conduct their analysis and file their tariffs, according to AT&T and MCI.

BellSouth Long Distance notes that affected IXCs should file their tariffs to flow through the access reductions within 15 days of the effective date of the last of the three LECs' filings. This would allow the carriers to avoid unnecessary multiple filings.

Sprint Communications Company's position is that IXCs should be allowed to have up to 60 days from the time that ILECs access reductions are effective in order to implement the tariff, billing and other administrative changes necessary to flow through the price adjustments.

Verizon Long Distance argues that facilities-based IXCs that benefit from reductions in the price of access should be required to pass through rate reductions via their intrastate tariffs (if tariffs are required), as soon as possible after the approved ILEC access rate reductions. Non-facilities-based IXCs should be required to flow through access charge reductions when they are received from the underlying facilities-based carrier. Since the flow-through of the access charges will require facilities-based carriers as well as IXC resellers, to make modifications to, for example, billing systems, rate tables, marketing and fulfillment materials, carriers should by given a reasonable amount of time to implement necessary plan and system changes before they are required to pass through access rate reductions.

On cross-examination, most of the IXC witnesses conceded that tariffs could be filed within 44 days after an ILEC's access charge tariff filing.

OPC, AARP and the AG all simply state that IXCs should be required to flow through the benefits of any rate reductions, via the tariffs, simultaneously with the approved ILEC access rate reductions.

2. Findings and Decision

Based on past experience with the 1998 access charge reduction flow-through, IXCs have not had difficulty complying with filing requirements as short as 21 and 30 days. We have heard no compelling testimony as to why, for the present dockets, 44 days from the filing of the LEC tariffs is not a reasonable time frame for filing of the IXC tariffs. The ILECs are required by Section 364.164(2), Florida Statutes, to give 45 days notice before tariffs go into effect, but IXCs need give only one day's notice. The goal of this requirement would be to have the ILEC and IXC tariffs become effective simultaneously. Accordingly, the IXC tariffs shall be required within 44 days after the filing of the ILECs tariffs, and the ILEC and IXC tariffs shall become effective simultaneously.

B. Duration of Revenue Reductions

Here, we address the appropriate duration of the IXC revenue reductions necessary to fully flow through the benefits of the access charge reductions to customers.

1. Argument

AT&T and MCI state that the highly competitive long distance market should and will decide this issue. They urge that specific restrictions have been unnecessary in the past, and could have negative consequences. In a highly competitive market, imposing any restrictions on the length of time a revenue reduction is in place could place the IXCs at a disadvantage in that it could prevent an IXC from implementing a pricing strategy that maximizes its competitive position. AT&T and MCI state that, should this Commission mandate the time period over which the reductions should be maintained, it would be the first time such a mandate has been imposed. In the earlier flow-throughs identified in these proceedings, this Commission did not impose a period of time that the rate reductions must be in place.

BellSouth Long Distance argues that, given the completely and irrevocably competitive nature of the intrastate interexchange long distance market in Florida, market forces will ensure that any long distance revenue reductions resulting from the flow-through of access charges will remain in place. There is significant and considerable competition among traditional long distance carriers as well as competition from other providers, such as voice over internet protocol providers and wireless carriers. According to BellSouth Long Distance, this competition will cause carriers to move their prices toward cost and prevent them from raising rates. Intrastate interexchange carriers should have the flexibility to change rates to meet market conditions, as long as they reduce their revenues in an amount equal to their access charge reductions.

Sprint Communications Company's conditional position is that

market forces will insure that the revenue benefits of access reductions will be effective in maintaining the revenue benefits of the access reductions. Nevertheless, each provider required to make a flow-through filing should reduce average prices by an amount at least equivalent to the access reduction on a per minute basis and should maintain those average price reductions for all three years of the access reductions plus at least one additional year.

Verizon Long Distance urges that the long distance market is highly competitive in that the traditional wireline long distance carriers compete against each other as well as with wireless carriers, cable companies and IP telephony providers. Competition will ensure that IXCs flow through access reductions without any need for Commission intervention. Nevertheless, to remove any doubt about whether customers will actually receive the benefit of the access reductions, Verizon Long Distance (and its affiliates) agree to flow through the reductions for three years. After that time, Verizon Long Distance argue IXCs should be free to change their long distance rates in accordance with the demands of the marketplace.

OPC, AARP and the AG argue that the IXCs should be required to cap and maintain their long distance rate reductions for a period of three years after parity is achieved, as required by Section 364.163, Florida Statutes, and as further described by witness Ostrander.

2. Findings and Decision

We find that, in order to implement the intent of the statutory requirements, there needs be a period of rate certainty after parity is achieved. We are not, however, persuaded by the arguments that we should mandate that the reductions remain in effect for a period of three years after parity is achieved. This is contrary to the fact that the long distance market is highly competitive, and as noted by witness Kapka, market forces will likely prove effective in keeping long distance rates low over the long term. Accordingly, we find that rate reductions shall remain in effect for no less than one year subsequent to parity being accomplished.

C. Allocation of the Flow-Through Benefits between Residential and Business Customers.

Here, we address the proper method for allocating the flow-through benefits between residential and business customers.

1. Argument

AT&T and MCI argue that the 2003 Act simply requires the IXCs to return the benefits of access reductions to both residential and business customers. However, it does not micro-manage the IXC market by mandating a methodology or specific allocation between the customer classes. In doing so, the Act recognizes the competitive market will determine the specifics of the access flow-through. They argue the 2003 Act specifically has given IXCs the maximum flexibility to determine how best to make reductions that meet the needs of the market place. As long as both residential and business customers benefit, each IXC should be left to accomplish its flow-through consistent with its market needs, according to the companies. In addition, each IXC must eliminate any in-state connection fee by July 1, 2006.

BellSouth Long Distance urges that both residential and business customers must receive benefits from the reduction in access charges, but emphasizes that Section 364.163, Florida Statutes, does not require any specific allocation. Nonetheless, under current market conditions, and so long as the other carriers agree to do so, BellSouth Long Distance will allocate the revenue reductions in an approximately pro rata manner between residential and business customers based upon access minutes of use.

Sprint Communications Company states that the methodology contained in witness Kapka's direct testimony should be a guide for flow-through. In his testimony, witness Kapka explained his methodology as follows:

> For services which are substantially used by residential subscribed customers, Sprint would determine the average revenue per minute for these services in the aggregate.

> With each reduction in access charges, Sprint would adjust the average revenue per minute for this base of customers such that the average revenue per minute would be reduced by an amount at least equal to the reduction in access charges per minute.... This general approach will ensure that the residential subscriber base will experience a reduction in long distance prices at a level at least as much as the reduction in access costs associated with long distance minutes that customer segment consumes.

Verizon Long Distance (and the Verizon affiliates) plan to flow through the benefits realized from access reductions to both residential and business customers based on the relative proportion of access minutes associated with those classes of customers. The amount of intrastate switched access that Verizon Select Services uses is significantly less than the amount that Verizon Long Distance uses.

The position of OPC, AARP and the AG is that the IXCs should allocate rate reductions between residential and business customers in the same proportion as the respective percent revenue increases for those two classes of customers that have been proposed by the ILECs.

2. Findings and Decision

Each of the IXCs has agreed that the allocation of rate reductions between the residential and business customer classes should be in proportion to the respective access minutes of use. While we have considered the argument that the reductions should be allocated in accordance with the increases on the local exchange side, we are not persuaded that this is feasible, economically appropriate, or even contemplated by the statute. Accordingly, we acknowledge the reasonableness of the IXC proposals that the allocation of the rate reductions being flowed through to residential and business customers on a pro-rata basis according to access minutes of use is reasonable.

XI. CONCLUSION

Based on the foregoing, we hereby grant the Petitions of Verizon, Sprint, and BellSouth as filed in Dockets Nos. 030867-TL, 030868-TL, and 030869-TL, as amended by commitments made on the record at the final hearing. In doing so, we find that these Petitions meet the statutory criteria set forth in Section 364.164, Florida Statutes, and that granting the Petitions furthers the Legislature's stated policy of furthering competition in the local exchange market and promoting new offerings and innovations in the telecommunications market for Florida consumers.

We hereby accept and approve the additional proposals offered by the companies as listed below:

BELLSOUTH	SPRINT	VERIZON

BELLSOUTH	SPRINT	VERIZON
Increase non-recurring charges so that the single line residential rates would be lowered by approximately 36 cents.	Increases to basic residential recurring and non-recurring rates would be in four steps spread over three years.	Increase non-recurring revenues from $1.2 million to $2.4 million so that basic local rates can be raised by $1.2 million less than requested.
Increase Lifeline eligibility to 135% of the federal poverty level.	Increase Lifeline eligibility to 135% of the federal poverty level.	Increase Lifeline eligibility to 135% of the federal poverty level.
	Lifeline rates would not be increased for four years.	Lifeline rates would not be increased for four years.
Will work with PSC to review ECS in a Commission workshop.	Will work with PSC to review ECS in a Commission workshop.	Will work with PSC to review ECS in a Commission workshop.

The tariffs reflecting the ILECs' agreement to increase Lifeline eligibility to 135% of the federal poverty level shall be effective concurrently with the ILECs' 45-day tariff filings.

In addition, the IXCs shall flow through the benefits resulting from the granting of the ILECs' Petitions in accordance with the specific requirements set forth in Section X of this Order.

Finally, Commission staff is hereby authorized to administratively review and approve the tariff filings received implementing these proposals.

It is therefore

ORDERED by the Florida Public Service Commission that the Petitions filed by Verizon Florida, Inc., Sprint-Florida, Incorporated, and BellSouth Telecommunications, Inc., in respective Dockets Nos. 030867-TL, 030868-TL, and 030869-TL are hereby approved as set forth in the body of this Order. It is further

ORDERED that the modifications proposed by these companies are also accepted and approved as set forth herein. It is further

ORDERED that the tariffs implementing the increased Lifeline eligibility criteria shall be effective concurrently with the Petitioners' 45-day tariff filings. It is further

ORDERED that the flow through of the access charge reductions by the interexchange carriers shall proceed in accordance with the provisions set forth herein and within the timeframes specified. It is further

ORDERED that a Commission workshop shall be conducted to investigate Extended Calling Service, as prescribed herein. It is further

ORDERED that Commission staff is hereby authorized to administratively review and approve the tariffs implementing these decisions. It is further

ORDERED that these Dockets shall be closed after the time for filing an appeal has run.

By ORDER of the Florida Public Service Commission this 24th day of December, 2003.

/s/ Blanca S. Bayó

BLANCA S. BAYÓ, Director
Division of the Commission Clerk
and Administrative Services

This is a facsimile copy. Go to the Commission's Web site, http://www.floridapsc.com or fax a request to 1-850-413-7118, for a copy of the order with signature.

(S E A L)

RDM/BK/FRB/PAC/CLF

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Director, Division of the Commission Clerk and Administrative Services, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Director, Division of the Commission Clerk and Administrative Services and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-11)
Impact of Inefficient Prices

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-11

Agustin J. Ros and Karl McDermott, "Are Residential Local Exchange Prices Too Low? Drivers to Competition in the Local Exchange Market and the Impact of Inefficient Prices," in Michael Crew, *Expanding Competition in Regulated Industries,* Kluwer Academic Publishers, 2000.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 19
Company/ Alltel
Witness: David C. Blessing (DCB-11)
Date: 12-01-05

WORKING DRAFT – DO NOT QUOTE WITHOUT AUTHORS' PERMISSION

ARE RESIDENTIAL LOCAL EXCHANGE PRICES TOO LOW? DRIVERS TO COMPETITION IN THE LOCAL EXCHANGE MARKET AND THE IMPACT OF INEFFICIENTLY-SET PRICES

Agustin J. Ros[1] and Karl McDermott[2]

In this paper we examine the major drivers and determinants of local exchange competition and investigate the proposition that inefficiently-set local exchange prices are having an impact on competition and inhibiting competition for residential customers. Examining data as of the end of 1998, we find support for both propositions. Using OLS and GLS estimates we find a significant and positive association between states that have more "balanced" tariffs and residential competition. We also find that those states that have a state-level universal service fund have higher levels of residential competition. This paper provides additional support for setting prices to reflect costs. For two measures of residential competition used in our data, we find that "rebalancing" tariffs by 10% leads to approximately a 9% and 13% increase, respectively, in residential competition.

I. INTRODUCTION

Nearly five years after passage of the Telecommunications Act of 1996 ("the Act") there is still widespread debate about the status and extant of competition in the local exchange market and whether the Act has succeeded or failed in one of its intended goal of fostering competition. While a consensus appears to have emerged that competition for large business customers in dense metropolitan areas is beginning to take hold, no such consensus exists for other types of customers.[3] Specifically, policymakers are asking when they will begin to see a consensus emerge that competition is taking hold for:

- Smaller business customers located in non-urban, rural areas; and
- Residential customers.

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[1] Senior Consultant at National Economic Research Associates and Instructor at Northeastern University.

[2] Vice President at National Economic Research Associates.

[3] See section II below.

There are plausible economic reasons why local exchange competition is developing in this manner. It should be no surprise that competition will first occur where the returns to investing are greatest. Only after these major opportunities are fully exploited will competitors seek out less profitable opportunities. For reasons dealing with the relative expense of deploying facilities in urban as opposed to non-urban areas and the volume of demand generated by large business customers as opposed to single-line business or residential customers, one would expect the pattern of local exchange competition to develop in this manner.

However, there may be other valid reasons that help explain this pattern of local exchange competition. Specifically, are there policy-related features of local exchange markets—which may not be what one would find in undistorted competitive markets—that are having an impact? In this paper we concentrate on a unique feature of local exchange markets. In the pursuit of universal service and fully exploiting the positive network externalities present in telecommunications, policy makers have historically priced residential network access below economic costs—i.e., lower than what one would find in competitive markets. The revenue sources that have historically been used to support residential prices include business services. While this policy has helped in permitting the United States to achieve high rates of telephone penetration, is it now distorting the development of local exchange competition and impeding competition for residential customers?

The purpose of this paper is to test this hypothesis. Are inefficiently-set local exchange prices having an impact on the development of local exchange competition and inhibiting the development of residential competition? We attempt to find empirical evidence for this proposition and control for other factors that are impacting local exchange competition and identify major drivers and determinants of local exchange competition. Section II and III provide a background on local competition and the economic predictors of local exchange competition. Section IV presents an econometric analysis.

II. BACKGROUND

The fundamental purpose of TA 96 was to open up local exchange markets to competition in the hope that competitive markets will do a superior job of accommodating the enormous technological changes taking place in the industry than monopolies. The Act opened up the local exchange market by, *inter alia*: eliminating legal barriers to entry; removing technical barriers to entry—e.g., requiring incumbent carriers to offer unbundled network elements ("UNEs") and to resell retail services at a wholesale discount; and requiring all carriers to interconnect.

A consensus appears to be emerging on the status and extant of local exchange competition: competition is taking hold and becoming robust for certain relevant economic markets—e.g., large business customers in dense urban areas—but is still in its infancy for other relevant economic markets—e.g., residential customers in non-urban areas. This consensus can best be reflected in the statements of many varies parties who normally oppose each other in regulatory arenas. For example, the Competitive Telecommunications Association ("Comptel") stated:

> "The effectiveness of this landmark piece of legislation is particularly evident in the market for business service...In particular, competition in the market for residential service has been slow to deveop."[4]

A report by Peter Huber indicated that:

> "In the local market, competition has developed rapidly-but only where competition makes strategic sense for new entrants. It makes sense in the business markets of large cities."[5]

The Consumer Federation of America and the Consumers Union stated:

> "To the extent there is competition, it is almost entirely restricted to large urban areas."[6]

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[4] Comptel Report on the State of Local Competition to the Honorable Tom Bliley, Jr. Chairman U.S. House of Representatives Committee on Commerce, December 9, 1998.

[5] Peter Huber, *Local Exchange Competition Under the 1996 Act: Red-Lining the Local Residential Customer.*

And, finally, the Department of Justice indicated that:

> "without universal service reform, local residential service, except in low-cost urban or other similarly densely populated area...will be uneconomical for competitors to provide."[7]

III. DRIVERS OF LOCAL EXCHANGE COMPETITION

A. Economic Determinants

Traditional wisdom among economists throughout most of the twentieth century was that local exchange markets were considered to be natural monopolies. For any given level of output, a natural monopoly exists if total industry costs are minimized by having a single firm produce. Natural monopolies and those industries approaching natural monopolies are characterized by efficient firm size being large relative to total industry demand. Beginning in the early 1990s, the view that local exchange markets were natural monopolies began to change especially as it pertained to certain relevant economic markets—e.g., business customers in urban markets. There are two sources that explain this transformation: demand and cost conditions. Any attempt to determine the "drivers" of local exchange competition should account for these two factors.

On the demand side, as the total market demand increases relative to the minimum efficient scale of production more firms are able to efficiently serve the market. Reasons why a change in demand occurs include changes in consumer preferences, income, price of complements or development of complementary products—such as the Internet—that raise the value consumers place on the service. As the market demand shifts upward, the socially optimal output increases relative to efficient firm size and more firms enter. Therefore, in our econometric analysis we include variables that control for the level of demand in each state.

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[6] Mark Cooper and Gene Kimmelman, *The Digital Divide Confronts the Telecommunications Act of 1996.*

[7] Joel I. Klein, *The Role for Local Competition: A Long Distance Run, Not a Sprint*, Speech to the American Enterprise Institute, November 5, 1997.

Telecommunications costs include a fixed component that does not vary with the level of output and a variable component that does vary with the level of output. A major determinant of efficient firm size is the output level at which economies of scale exhaust and a major determinant of when economies of scale exhaust is the level of fixed costs that are present. As the level of fixed costs decrease two things happen: (i) first, in competitive markets prices track costs and lower prices result in higher demand, and (ii) minimum efficient scale decreases. Both changes mean that the number of firms that can efficiently serve the market increases. In our econometric analysis, we include a variable that controls for the costs—especially the fixed costs—to deploy infrastructure.

B. Regulatory Distortions

An important hypothesis that we test in this paper is the proposition that inefficiently-set local exchange prices are having a significant impact on how local exchange competition is developing. Traditionally, business services have been used a revenue source to keep residential local exchange prices below economically efficient levels. Therefore, once competition is permitted in the local exchange, *at the margin* competitors may inefficiently target business customers and ignore residential customers. That is, under current conditions where business prices are likely above their economic costs there is too little residential competition. CLECs may be ignoring residential customers not because underlying demand and supply conditions justify it but rather because of regulatory distortions. If true, the policy implication is that states should move more aggressively than they have to date in rebalancing prices—i.e., setting residential and business prices in accordance with economic efficiency.

IV. EMPIRICAL ANALYSIS

In this section, we analyze the determinants of local exchange competition and test the hypothesis that inefficiently-set local exchange prices are having an impact on the development of local exchange competition. We begin by describing the data, sources used and presenting descriptive statistics. We continue by discussing our hypotheses and our econometric model. We conclude this section by presenting our results.

A. Data

1. Dependent Variables

Table 1 below presents a description of the data that were used in this study.[8] The dependent variables used in our study are measures of local exchange competition. We use several different measures of local exchange competition; some examine the extent of facilities-based competition while others examine the extent of resale competition. Furthermore, some of the variables distinguish between business as opposed to residential competition. Each competition variable comes from the Federal Communications Commission's *Local Exchange Competition: August 1999* which reports the extent of competition as of the end of 1998.[9]

The number of lines provided by CLECs (i.e., not UNEs or resale) are not publicly available although estimates are that about a quarter of all lines provided by CLECs are facilities based.[10] As a result, we rely on variables that are likely proxies for facilities-based competition such as: the number of CLECs holding numbering codes; percent of ILEC lines (residential and other lines) served by switching centers where new entrants have collocation arrangements; and ILEC lines leased to CLECs as UNE loops.[11] Variables used for resale competition include: the number of ILEC voice grade lines (residential and other lines) provided to CLECs for resale to end users; and the percent of resold lines serving residential or other than residential customers.

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[8] For both the dependent and independent variables, the data are state-specific—one measure for the state in question. We use data from the RBOCs, GTE and Sprint. For variables such as population, per capita income this presents no issue because the data are collected at the state level. When the variables are company-specific (such as the percent of ILEC lines leased to CLECs as UNE loops) a weighted average based on the number of lines for each company is used.

[9] Federal Communications Commission, Industry Analysis Division, *Local Competition: August 1999.*

[10] *Ibid.*, at

[11] In this paper, ILEC lines leased to CLECs as UNE loops are considered a measure of facilities-based competition because there is the likelihood those CLECs that lease loops are providing their own switching. There is an exception to this general rule in those jurisdictions where the platform approach to local competition has been adopted—i.e., where a CLEC leases a loop, switching and transport. However, for the time period that this study takes place, few jurisdictions had adopted the platform approach to local exchange competition.

2. Independent Variables

There are a host of independent variables used in our analysis that are hypothesized to have an impact on the extent of local exchange competition (both facilities based and resale). Independent variables that control for demand-side effects include: per capita personal income, total gross state product, gross state product for finance, insurance and real estate ("fire"), and gross state product for manufacturing; and the average UNE loop price; and the average resale discount.[12] On the supply side we use lines per square mile as a proxy measuring how expensive or inexpensive it is to deploy facilities and the average resale discount.[13]

As discussed above, we also include two other variables that likely have an impact on the development of local exchange competition—the degree to which local exchange prices are inefficiently-set and whether the state has some type of functioning universal service program. For the degree to which local exchange prices are inefficiently-set, we use two measures. The first measure is the ratio of the monthly rate for a business with a PBX trunk and the monthly residential rate while the second measure is the ratio of the connection charge for a business with a PBX trunk and the connection charge for a residential line.[14]

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[12] Data for per capita income and gross state product are from the Bureau of Economic Analysis and are for 1997. Data for UNE loop prices are for 1997 and are mainly taken from the National Association of Regulatory Utility Commission ("NARUC") *Telecommunications Competition Repor 1998* and from the National Regulatory Research Institute ("NRRI") web page.

[13] Data for the resale discount are for 1997 and are mainly taken from the National Association of Regulatory Utility Commission ("NARUC") *Telecommunications Competition Repor 1998* and from the National Regulatory Research Institute ("NRRI") web page.

[14] The data are for 1997 and are mainly taken from the Federal Communication Commission's *Reference Book of Rates Price Indices and Expenditures for Telephone Service*, tables 1.4, 1.5, 1.19 and 1.20. For a few states, information was taken from the Center for Communications Management Information ("CCMI") and from tariffs obtained directly from the states.

Table 1: Description of Variables

Variable	
Resale	ILEC voice grade lines provided to CLECs for resale to end users as of Dec 31, 1998, (000).
Resale%	Percent of ILEC voice grade lines resold, as of Dec 31, 1998.
Resale_res	ILEC resold lines serving residential customers as of Dec 31, 1998, (000).
Resale_oth	ILEC resold lines serving customers other than residential as of Dec 31, 1998, (000).
Resale_res%	Percent of resold lines serving residential customers as of Dec 31, 1998.
Resale_oth%	Percent of resold lines serving customers other than residential as of Dec 31, 1998.
Une	ILEC lines leased to CLECs as UNE loops as of Dec 31, 1998, (000).
Per_une	Percent of ILEC lines leased as UNEs, as of Dec 31, 1998.
Col_res	Percent of ILEC residential lines served by switching centers where new entrants have collocation arrangements, as of Dec 31, 1998.
Col_oth	Percent of ILEC other lines served by switching centers where new entrants have collocation arrangements, as of Dec 31, 1998.
Col_tot	Percent of ILEC total lines served by switching centers where new entrants have collocation arrangements, as of Dec 31, 1998.
Code	CLECs holding numbering codes as of Dec 31, 1998.
Pop	Population (000) 1997.
Lines	Access lines of all incumbent local exchange carriers in thousands.
Sqmi	Square miles.
Popsqmi	1997 population per square mile.
Linesqm	1998 access lines per square mile.
GSP_com	1997 Gross state product in communications, (000,000).
GSP_fire	1997 Gross state product in finance, insurance and real estate, (000,000).
GSP_tot	1997 Gross state product all industries, (000,000).
GSP_man	1997 Gross state product in the manufacturing industry, (000,000).
Percap	1997 Per capita personal income.
P_bs	Monthly rate for a business with a PBX trunk, 1997 dollars.
P_rs	Monthly residential rate, 1997 dollars.
Bs_rs	Ratio of monthly rate for a business with a PBX trunk and monthly residential rate.
P_bscn	Connection charges for a business with a PBX trunk, 1997 dollars.
P_rscn	Connection charges for a residential line, 1997 dollars.
Bs_rs_cn	Ratio of PBX connection and residential connection charges.
Resale_dis	Average resale discount in the state.
UNE_price	Average UNE loop price in the state.
US	1 if state has a universal service plan that is either functioning or under revision, 0 otherwise.

For our universal service variable we use a survey report from NRRI.[15] The NRRI report provides the results of a survey that NRRI conducted to examine state commission actions to further and support universal service. The NRRI survey examined the status of each state's universal service plan as of the early part of 1998. NRRI found that while there were many states that had either approved a state universal service fund or where approval was pending, fewer states indicated that their fund was either functioning or currently under revision. Therefore, we created a dummy variable to identify those states where their fund was either functioning or currently under revision.

Table 2 below presents the descriptive statistics of the variables used in this study. The data indicate that as of the end of 1998 local competition was in its infancy. The average number of resold lines per state was about 50,000 which represented about 1.5 percent of the market. On average, there were fewer UNE loops sold in each state, only about 5,000 which represented about .2 percent of the market. What the data do not show, however, and which is confirmed in the FCC's *Local Exchange Competition: August 1999* report is that local competition is growing rapidly.[16] The data also indicate that competitors have collocated in end offices that contain about 50 percent or non-residential lines and 37 percent of residential lines. This means that competitors are able to "address" a fairly large percent of the market. In the face of profitable opportunities or the attempt by incumbent carriers to exercise market power, competitors are well positioned to provide alternative services.

The data also indicate that monthly business prices are significantly above residential prices and the same applies, although to a lesser extent, for connection charges. This variable is a measure of the degree to which local exchange prices in each state are inefficiently set—i.e., the degree to which local exchange prices are unbalanced. The data indicate that, on

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[15] *State Universal Service Funding and Policy: An Overview and Survey*, Edwin A. Rosenberg and John D. Wilhelm, NRRI, September 1998.

[16] For example, compared to the long distance market at similar points in time, local competition is progressing more rapidly. In the first quarter of 1998, CLECs added more access lines than the RBOCs. The non-AT&T long distance carriers did not have more incremental minutes until a full 10 years after MCI carried its first switched long distance minute.

average, monthly business prices are about 2.9 times above residential prices and business connection charges are about 1.5 times above residential connection charges.

Table 2: Descriptive Statistics

Variable	Observations	Mean	Std. Dev.	Minimum Value	Maximum Value
Resale	50	46.15648	64.09523	0	284.0132
Resale%	50	1.508219	1.135412	0	5.028401
Resale_res	50	20.24232	31.38245	0	165.8662
Resale_oth	50	25.96053	37.86764	0	189
Resale_res%	50	40.3573	24.79735	0	83
Resale_oth%	50	58.57647	24.45114	17	100
Une	50	5.860713	11.39266	0	49
Une%	50	.1884358	.4063425	0	2.69708
Col_res%	50	36.50219	17.81136	4	81.54307
Col_oth%	50	49.39897	18.31369	13.8	91.9
Col_tot%	50	40.90785	18.26937	6.7	84.3
Code	50	8.90	7.11	1	34
Pop	51	5249.874	5844.743	480.043	32182.12
Lines	50	3442.34	3946.51	284	21483
Sqmi	51	69339.97	85516.35	61.4	570373.6
Popsqmi	51	339.5627	1207.503	1.06887	8630212
Linesqm	51	407.9091	2088.823	0	14983.71
GSP_com	51	4149.549	5516.825	238	26311
GSP_fire	51	30790	44733	1930	237282
GSP_tot	51	158886.9	187534.2	15214	1033016
GSP_man	51	27036.69	29276.72	996	146173
Percap	51	24326.63	4003.049	18098	35863
P_bs	51	54.2503	18.91313	25	116.04
P_rs	51	18.66948	4.38621	9.82	27.68
Bs_rs	51	2.888258	.6713013	1.834631	4.620785
P_bscn	51	53.97	19.75	15.10	99.04
P_rscn	51	38.79	10.23	9.82	60.61
Bs_rs_cn	51	1.50	.70	.53	3.40
Resale_dis	48	18.18	4.98	9.88	32.75
Une_price	46	20.65	16.89	9.96	121.75
US	51	.275	.451	0	1

Other interesting findings from Table 2 are state policies on pricing of UNE loops, the resale discount and progress on universal service. The data indicate that in 1997 the average resale discount was 18.2 percent and the average UNE loop price was $20. Also, as of 1998 only about 28 percent of states had a universal service fund that was either functioning or under revision.

B. Econometric Analysis

1. Testable Hypotheses

There are two broad measures of competition in this study: facilities-based and resale. This is further broken into, where possible, residential and business competition. The impact that the independent variables are hypothesized to have on the dependent variable depends on whether the dependent variable is measuring facilities as opposed to resale competition and whether the dependent variable is measuring residential as opposed to business competition. Table 3 below indicates the expected signs of our econometric analysis.

Table 3: Predicted signs of econometric analysis

	Resale		Facilities-Based			
			UNE Loop		Collocation	
Independent Variables	**Residential**	**Bus.**	**Residential**	**Bus.**	**Residential**	**Bus.**
Per-capita Income	+	+	+	+	+	+
GSP Variables	+	+	+	+	+	+
Lines/sq. mile	-	-	-	-	+	+
Bus./res. Ratio	-	+	-	+	-	+
UNE Loop Price	+	+	-	-	+	+
Resale Discount	+	+	-	-	-	-
U.S. Fund	-		+		+	

We predict that the variable measuring the degree to which local exchange prices are inefficiently-set—specifically, the degree to which business rates are being used to support residential rates—will have a negative impact on residential competition regardless of whether the dependent variable is measuring resale or facilities-based competition. On the other hand,

we predict that as the business/residential ratio increases competitors have increased incentives to target business customers and so we expect the sign to be positive when the dependent variable is measuring business competition.

We expect the universal service variable to have a positive impact on facilities-based competition (including UNE competition) when the dependent variable is measuring residential or competition. To the extent residential prices are set below economically efficient levels, the universal service is fund is intended to provide a subsidy to carriers that serve the customer. Because the universal service payment is only for residential an single-line business customers and since our measure of business competition is for more than one line, we do not expect to see an impact when the dependent variable is measuring facilities-based competition for business customers. Also, since universal service payments are not given to carriers that provide service through reselling, we do not expect to see an impact when the dependent variable is measuring resale competition.

We expect the UNE loop price to be negatively related to UNE competition but positively related to other facilities-based competition or resale competition regardless of whether the dependent variable is measuring residential or business competition. As the UNE price increases, other forms of competition become more attractive. The same logic applies for the resale discount. As the resale discount increases other forms of competition become less attractive. Therefore, we expect to see the resale discount positively related to resale competition but negatively related to other facilities-based competition including UNE competition.

Other independent variables include access lines per square mile, the gross state product variables (fire, manufacturing and total) and per-capita income. Access lines per square miles measure how expensive or inexpensive it is to deploy facilities. Therefore, as access lines per square miles increase we expect to observe a positive sign when the dependent variable is facilities-based competition excluding UNE competition. As it becomes cheaper to deploy facilities, competitors are less likely to use UNE loops or resale. Finally, we expect that the gross state product variables and per capital income will likely have a positive impact on all

forms of competition—resale, UNE loop, facilities—and for both residential and business customers.

2. Results

We use the dependent and independent variables mentioned above to run several different econometric models. The models take the following form:

(1) $$\mathbf{Y_i} = \beta_0 + \beta_j \mathbf{X_j} + e$$

where: $\mathbf{Y_i}$ is a vector of local exchange competition variables such as resale or facilities-based and type of customer such as residential or business; $\mathbf{X_j}$ is a vector of the independent variables described in Section III A above; β_0 is a constant term and e is a random disturbance variable assumed to be distributed with zero mean and specifiable covariance structure.[17] Equation (1) is estimated using ordinary least squares ("OLS") except when heteroscedasticity is present and we use generalized least squares ("GLS"). Table 4 presents the results when the dependent variable is a measure of facilities-based competition and Table 5 presents the results when the dependent variable is a measure of resale competition.

Equation (1) in Table 4 is estimated using OLS and uses the number of CLECs assigned numbering codes in each state as the dependent variable (code). The most important variable explaining the variation in the dependent variable is the gross state product for fire—finance, insurance and real estate. GSP_fire is positively related to code at the 5% level.

The results from equation (1) indicate that there is support for our hypothesis that inefficiently-set local exchange prices (Bs_rs) are having an impact on the development of local exchange competition. Specifically, our data set indicates that, holding all other factors constant, as prices are less efficiently set—i.e., more unbalanced—the number of CLECs holding numbering codes increases. The Bs_rs variable has a t-stat of 1.99, which at 46 observations is significant at the 10% level and almost significant at the 5% level. As

[17] The starting assumption is that e is distributed identically and independently with zero mean and finite, constant variance. This assumption can be relaxed to allow for heteroscedasticity (non-identical distribution) and/or serial correlation (non-independent distribution) following tests on the data. We heteroscedasticity is present we estimate equation (1) using GLS.

discussed above, by the end of 1998 much of the competition occurring in local markets was focused toward the business customers. As such, unless a variable specifically measures residential competition—such as the amount of residential resale—measures of generic local exchange competition like code are likely more reflective of business competition. With this interpretation in mind, the results from equation (1) indicate that unbalanced local rates are encouraging competitors to target business customers.

Table 4: Determinants of Facilities-based Competition (Std. Error in parenthesis)

	Dependent Variables		
Independent Variable	**Code Equation (1)**	**Col_res Equation (2)**	**Col_oth Equation (3)**
Linesqm	.000468 (.000314)	-.000084 (.00076)	.00195* (.00034)
GSP_fire	.000114* (.000015)		.000074* (.000032)
Percap		.00122 (.00098)	
Bs_rs	2.01** (1.01)	-5.95** (3.04)	-5.49** (2.96)
US	3.03** (1.57)	12.03* (4.69)	8.05 (5.22)
UNE_price	-.073** (.041).	-.351* (.085)	-.366* (.095)
Constant	.48 (3.35)	29.31 (28.76)	69.32* (10.56)
N	46	46	46
F-stat	F(5, 40) = 15.04*	F(5.40) = 19.30*	F(5.40) = 62.15*
Adj R-squared	.61	.35	.35

*Significant at the 5% level or above; ** significant at the 10% level;

Other interesting finds from equation (1) are the importance of states having some type of functioning universal service fund and the impact of the UNE loop price. According to our data, those states that have a functioning universal service fund or whose fund is currently under revision had approximately three more CLECs holding number codes holding other factors constant. Also, higher UNE loop prices had a negative, though small, impact on the

number of CLECs holding number codes. Both the universal service and UNE loop price variables are statistically significant at the 10% level.

Equation (2) provides additional empirical support for the proposition that inefficiently-set local exchanges prices are impacting the development of local exchange competition and, specifically, inhibiting competition for residential customers. Equation (2) is estimated using GLS. The dependent variable in equation (2)—Col_res— is the percent of ILEC residential lines served by switching centers where new entrants have collocation arrangements. The results from equation (2) indicate that as the prices are less efficiently set—i.e., more unbalanced, the percent of ILEC residential lines served by switching centers where new entrants have collocation arrangements decreases. The Bs_rs variable has a t-stat of 1.96, which at 46 observations is significant at the 10% level and almost significant at the 5% level. When substituting the average value of Bs_rs (2.89) into equation (2), we conclude that rebalancing prices by 10% leads to a 3.2 percentage point increase in the percent of ILEC residential lines served by switching centers where new entrants have collocation arrangements. This is approximately a 9% increase from the average value of the dependent variable.

Other important variables explaining the variation in the dependent variable are, once again, universal service and UNE loop prices. The universal service variable is significant at the 5% level. The coefficient indicates that those states that either have a functioning universal service fund or whose fund is under revision have more residential competition. The magnitude of the US coefficient is quite high. Specifically, when US is one the percent of ILEC residential lines served by switching centers where new entrants have collocation arrangements increases by 12 percentage points. Finally, the UNE loop price is negative and significant at the 5% level, although as in equation (1) the impact is relatively small.

Equation (3) uses the percent of other lines (i.e., non-residential lines) that are served by switching centers where new entrants have collocation arrangements and is estimated using GLS. The results from equation (3) indicate that lines per square miles, GSP_fire, Bs_rs ratio and the UNE loop price explain about 35 percent of the variation in the dependent variable.

Lines per square mile and GSP_fire are both significant and positively related to the dependent variable at the 5% level.

The Bs_rs ratio and the UNE loop price are both significantly related to the dependent variable at the 10% level, however, their signs are negative, the opposite of what we predicted in Table 3 above. A plausible explanation is that the dependent variable is not a perfect measure of facilities-based business competition. Competitors are not required to collocate in order to serve a customer via their own facilities. All that is required is some point of interconnection that need not be in an end office serving customers. What the results of equation (3) may be indicating is that if the Bs_rs ratio is significantly high, competitors will find it more advantageous to pursue a pure facilities-based strategy where collocation is not required. This can also explain why the UNE loop price variable is also negative. As the loop price increases, competitors turn away from purchasing loops and do not need to collocate as much. Further examination of this issue would be fruitful, however, given our data constraint we were not able to pursue this area of inquiry.

Table 5 below presents the results from our econometric analysis when the dependent variables are measuring some type of facilities-based competition. Specifically, equation (4) in Table 5 uses the number of ILEC voice grade lines provide to CLECs for resale to end users (Resale) as the dependent variable while equation (5) uses the number of ILEC resold lines serving residential customers (Resale_res).

Equation (4) was estimated using OLS. The results indicate that based on our data, the major drivers of resale competition are GSP_fire and the level of the resale discount. The degree to which local exchange prices are inefficiently-set have no impact on Resale. GSP_fire is positively related to Resale at the 5% level and the coefficient indicates that each additional $1 billion in GSP_fire increases resold lines by about 1,300. The level of the resale discount is positively related to Resale at the 5% level and the coefficient indicates that each percentage point increase in the resale discount increases resold lines by about 3,200.

Table 5: Determinants of Resale Competition (Std. Error in parenthesis)

	Dependent Variable	
Independent	**Resale**	**Resale_res**

Variable	Equation (4)	Equation (5)
Linesqm		-.00196* (.00064)
GSP_fire	.00126* (.00013)	
Percap	-.00245 (.0017)	
Bs_rs		-5.44 (6.13)
Bs_rs_cn	-9.11 (8.45)	-10.86** (6.25)
Resale_dis	3.20* (1.34)	.879 (.790)
UNE_price	.491 (.350)	
Constant	11.01 (41.86)	37.11 (25.48)
N	44	48
F-stat	F(5, 38) = 20.13*	F(4, 43) = 3.60*
Adj R-squared	.69	.09

*Significant at the 5% level or above; ** significant at the 10% level;

Equation (5) was estimated using GLS and the results provide support for the proposition that inefficiently-set local exchange prices are impacting the development of resale competition for residential customers. While the Bs_rs ratio has no impact on the amount of residential resale competition, the Bs_rs_cn ratio does—i.e., the ratio of the business connection charge to the residential connection charge. The Bs_rs_cn ratio was negatively related to residential competition and was significant at the 10% level. When substituting the average value of Bs_rs_cn into equation (1), the coefficient on Bs_rs_cn indicates that rebalancing prices by 10%—where by rebalancing we mean higher residential prices and lower business prices—leads to an increase in residential resold lines of approximately 2,700 or approximately a 13% increase from the average value of the dependent variable.[18] The other variable of significance was lines per square mile which is a proxy for the cost of deploying

[18] For the "unbalanced" bs_rs_cn value we took the ratio of the P_bs_cn and P_rs_cn which was 1.39. To obtain the 10% "rebalanced" value for the Bs_rs_cn variable, we decreased and increased the average business and residential connection prices, respectively, by 10% and took the ratio of these numbers which turned out to be 1.14.

facilities. Lines per square miles are negatively related to residential resale competition and the variable is significant at the 5% level.

V. CONCLUSIONS

In this paper we examined the major drivers and determinants of local exchange competition and investigated the proposition that inefficiently-set local exchange prices are having an impact on competition and inhibiting competition for residential customers. Examining data as of the end of 1998, we found support for both propositions. Using OLS and GLS estimates we found a significant and positive association between states that have more "balanced" tariffs and residential competition. We also found that those states that have a state-level universal service fund have higher levels of residential competition. This paper provides additional support for setting prices to reflect costs. For two measures of residential competition used in our data, we found that "rebalancing" tariffs by 10% leads to approximately a 9% and 13% increase, respectively, in residential competition.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-12)
Gordon Direct Testimony

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-12

Amended Direct Testimony of Dr. Kenneth Gordon On behalf of Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-Florida Inc. Before the Florida Public Service Commission; in Docket No.. 030867-TL, In re: Petition by Verizon Florida Inc. to reform intrastate network access and basic local telecommunications rates in accordance with Section 364.164, Florida Statutes; Docket No.. 030868-TL, In re: Petition by Sprint-Florida, Incorporated to reduce intrastate switched network access rates to interstate parity in revenue-neutral manner pursuant to Section 364.164(1), Florida Statutes; Docket No. 030869-TL, In re: Petition for implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.; and Docket No. 030961-TI, In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes. See Also Final Order No. PSC-03-1469-FOF-TL, Issued: December 24, 2003.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 20
Company/ Alltel
Witness: David C. Blessing (DCB-12)
Date: 12-01-05

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AMENDED DIRECT TESTIMONY OF DR. KENNETH GORDON

On behalf of Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-Florida Inc.

September 30, 2003

AMENDED DIRECT TESTIMONY OF DR. KENNETH GORDON

I. PURPOSE & SUMMARY OF CONCLUSIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Dr. Kenneth Gordon. My business address is One Main Street, Cambridge, Massachusetts 02142. My C.V. is provided as Attachment A.

Q. WHAT IS YOUR CURRENT POSITION?

A. I am a Special Consultant of National Economic Research Associates, Inc. ("NERA"). Previously, I was Senior Vice President at NERA.

Q. WILL YOU PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL QUALIFICATIONS?

A. I am an economist and former Chairman of the Maine Public Utilities Commission ("Maine Commission") and the Massachusetts Department of Public Utilities ("Mass. DPU"). The Mass. DPU is now known as the Massachusetts Department of Telecommunications and Energy. I have been an economist since 1965, and I have been directly involved with developing and establishing regulatory policy at the federal and state levels since 1980, when I became an industry economist at the Federal Communications Commission ("FCC").

I received my A.B. degree from Dartmouth College in 1960. I received my M.A. degree in 1963 and my Ph.D. degree in 1973, both in economics, from the University of Chicago. I have taught applied microeconomics, industrial organization, and regulation (as well as other subjects) at Georgetown University, Northwestern University, University of

Massachusetts at Amherst, and Smith College.

From 1980 to 1988, I was an industry economist at the FCC's Office of Plans and Policy, where I worked on a full range of regulatory issues, including telecommunications, cable, broadcast, and intellectual property rights. At the FCC, one of the major focuses of my work was activity aimed at introducing competition into communications markets.

Prior to joining NERA in November 1995, I chaired the Maine Commission (1988 to December 1992) and the Mass. DPU (January 1993 to October 1995). During my term as Chairman of the Mass. DPU, the DPU investigated and approved a price cap incentive regulation plan for NYNEX and also undertook a proceeding to examine interconnection and other issues related to the development of competition at all levels of telecommunications, including basic local service.

While a regulator, I was active in the National Association of Regulatory Utility Commissioners ("NARUC"), serving on its Communications and Executive Committees. In 1992, I served as President of NARUC. I was also Chairman of the BellCore Advisory Committee and the New England Governor's Conference Power Planning Committee.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-Florida Inc., ("the companies") are seeking to restructure their rates for intrastate network access services ("intrastate access") and basic local telecommunications services ("basic local") in

accordance with recently passed legislation by the Florida Legislature.[1] The companies' revised plans—which must address the criteria established in the legislation—call for them to restructure their intrastate access and basic local rates in a revenue-neutral manner.

The companies have asked me to provide an economic and policy analysis of their revised rate plans and to testify on whether I believe those revised plans meet the criteria laid out in the legislation.

Q. WHAT ARE YOUR MAJOR CONCLUSIONS?

A. After reviewing the newly-enacted legislation, the evidence in this case—specifically the companies' revised plans and the cost evidence submitted by the companies' witnesses—and based on my general knowledge and expertise on telecommunications economic and regulatory matters, I conclude that the revised plans submitted by the companies meet the criteria contained in the legislation. Specifically, upon implementation, the revised plans will, *inter alia*:

- Reduce current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers; and
- Induce enhanced market entry.

The companies' revised plans significantly decrease support for basic local service by reducing prices for a service that has historically and purposely been an important source—but by no means the only source—of support for basic local services, namely

[1] *See* Section II below.

intrastate access. In order to achieve revenue neutrality, the companies' revised plans increase residential basic local prices towards cost-based levels, thus creating a more attractive market for potential entrants, ultimately for the benefit of residential consumers. Both theory and empirical evidence show that low residential basic local prices have hindered the development of residential competition. By better aligning residential basic local prices with cost, competitors will have increased incentives to target a broader mix of residential consumers, which is the intent of the Florida legislature.

In addition, I conclude that the revised plans will enhance economic welfare in Florida by increasing economic activity. As described in the respective testimonies of the companies' cost witnesses, the cost evidence submitted in this proceeding demonstrates that rates for residential basic local service diverge significantly from their underlying costs. A movement toward costs—and, therefore toward more rational economic pricing—will bring with it several economic benefits. These benefits include providing market participants—i.e., customers, the companies and potential and actual competitors—with more cost-based price signals, which will improve economic decision making and lead to more economically rational utilization of telecommunications services. Economic activity in Florida will increase as a result of the companies' revised plans because rebalancing generates substantial consumer benefits. Telephone consumers are better off as a result of moving prices more in line with costs, and will likely increase their purchases of those services whose price has come down. Perhaps of even greater significance, competitive telephone service providers will be seeing better price signals for local service, and will be able to invest without having to face the level of subsidized competition they have faced in the past. New investment by these providers should, at the margin, increase.

The cost evidence presented by the companies demonstrates that basic local prices are receiving an economic subsidy from other services. The companies submitted forward-looking direct cost evidence to demonstrate that their residential basic local services are priced below the costs the companies incur to provide the services. Forward-looking direct cost is the basis for determining whether a service is receiving an economic subsidy. Moreover, consistent with this Commission's ruling, the companies' cost witnesses, when measuring the economic subsidy flowing to basic local services, correctly assign the entire cost of the loop to basic local.

I also conclude that the companies' revised plans will not jeopardize universal service in the state of Florida. The companies' residential basic local prices are substantially below the national average and Florida is not a poor state. The Florida Public Service Commission ("Commission") has the flexibility to approve the companies' revised plans and still have residential basic local prices remain affordable. The Florida Legislation requires that any price increase in basic local service not apply to Lifeline consumers and also increased the income eligibility for Lifeline consumers to 125 percent, thus protecting those customers most likely to be sensitive to potential price increases from a rebalancing plan. Importantly, the companies' revised rebalancing plans will lead to lower intrastate toll prices for all consumers. At the end of the day, the mix of services that consumers purchase as a result of the companies' revised plans will make consumers better off overall.

Finally, the fact that some customers may experience unwanted rate changes should not be an argument for the status quo. Good policy requires weighing and balancing the costs

and benefits of particular actions. While it may seem that maintaining current prices is the least objectionable thing to do from a policy perspective, there is an implicit but very real cost to continuing the status quo. The deployment of next generation, advanced networks depends crucially on providing all market participants the sound economic signals that will encourage efficient investment and innovation. Cost-based prices provide the incentives needed to bring to market the new services that customers demand. This cannot be accomplished by distorted prices.

Q. YOU HAVE NOTED IN YOUR MAJOR CONCLUSIONS THAT VERIZON FLORIDA INC., BELLSOUTH TELECOMMUNICATIONS, INC., AND SPRINT-FLORIDA INC. HAVE REVISED THEIR RESPECTIVE RATE REBALANCING PLANS FILED ON AUGUST 27, 2003 TO EXTEND THE TIME OVER WHICH INTRASTATE NETWORK ACCESS AND BASIC LOCAL TELECOMMUNICATIONS RATES WILL BE REFORMED. HAVE YOU REVIEWED THESE COMPANIES' REVISED PLANS?

A. Yes, I have.

Q. DO THESE REVISIONS AFFECT YOUR ANALYSIS OF THE COMPANIES' PLANS OR YOUR TESTIMONY?

A. No. With the exception of the minor changes — changing "plans" to "revised plans" — as well as this and the previous question and answer, my testimony remains unchanged from the testimony that I filed on August 27, 2003.

II. BACKGROUND

Q. PLEASE DESCRIBE THE BASIS FOR THE COMPANIES' REQUEST TO INCREASE BASIC EXCHANGE PRICES.

A. From an economic perspective, the fact that the companies' current residential basic local prices are not fully recovering their forward-looking economic cost is, by itself, a good enough reason to begin the process of moving them to more economically rational levels. Both theoretical and empirical research have shown that rebalancing rates and moving them toward levels more commensurate with their underlying costs results in significant benefits to telecommunications consumers and, by so doing, benefits the economy as well.[2] Rebalancing rates has also been demonstrated to have a positive effect on competitive entry into the local exchange market.[3]

The immediate catalyst for the companies' revised plans is the recent changes in Florida laws. I have been informed by counsel that the legal authority for the companies' request arises from recent changes in the statutory framework in Florida. During the 2003 regular legislative session, the Legislature passed Senate Bill 654, the Tele-Competition Innovation and Infrastructure Enhancement Act ("Tele-Competition Act"). The Tele-Competition Act implements several important policies, but for our purposes the relevant Section of the Tele-Competition Act is § 364.164 "Competitive market enhancement."

Q. WHAT ARE THE IMPORTANT PROVISIONS OF § 364.164?

A. § 364.164 permits local exchange telecommunications companies to petition the

[2] See Section IV below.

[3] See Section III.

Commission to reduce their intrastate access rates in a revenue-neutral manner. In reaching its decision, § 364.164 (1) states that the Commission shall consider whether granting the petitions will:

a. Remove current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers;

b. Induce enhanced market entry;

c. Require intrastate switched network access rate reductions to parity over a period of not less than 2 years or more than 4 years; and

d. Be revenue neutral as defined in subsection (7) within the revenue category defined in subsection (2).

Throughout my testimony, I will focus on whether the companies' revised plans are consistent with and meet the criteria provided in § 364.164 (1) (a) and (b). Other company witnesses discuss how the companies' revised plans would meet criteria (c) and (d).

Q. IN ORDER TO REDUCE INTRASTATE ACCESS RATES IN A REVENUE NEUTRAL MANNER, RATES FOR OTHER SERVICES NEED TO BE INCREASED. WHAT SERVICES DO YOU BELIEVE SHOULD BE INCREASED?

A. The first category of services that should be considered are those services whose current prices do not recover fully their underlying costs, such as residential basic local telecommunications services. Rates for these subsidized services should be increased in order to better reflect their real economic cost. This is confirmed in §364.164 (2), where the legislation calls for the creation of a revenue category mechanism consisting of basic

local telecommunications service revenues and intrastate switched network access revenues in order to achieve revenue neutrality. That is, the legislation states that in order to achieve revenue neutrality, if intrastate access prices are reduced, then basic local service prices need to be increased.

The current rate design for telephone services—where basic local services are priced below cost and other services, including intrastate access service, are priced in such a way so as to provide the support—while in the process of being reduced or eliminated in a number of states, continues to be encountered in state regulation of telephone services. However, as the Florida Legislature wisely recognized, whatever benefits such a rate design policy has arguably achieved in the past, such as helping the United States achieve universal telephone service—the continuation of such policies frustrates another important policy goal of Federal and state regulators, namely, the establishment of efficient competition to as broad a base of business and residential consumers as is economically feasible—not to mention the economic costs that arise from price-cost distortions, *per se,* as I discuss further below.

The current rate design policy as it pertains to residential basic local services, frustrates that policy goal and by enacting § 364.164, the Florida Legislature has provided the Commission with the direction it needs to make competition work better for all Florida consumers.

Q. ARE THE COMPANIES' REVISED PLANS CONSISTENT WITH § 364.164 (1) (a) and (b)?

A. Yes. The companies' revised plans are consistent with and meet the criterion of § 364.164(1)(a) and (b). Below in Section III, I fully describe why I believe that the

companies' revised plans are consistent with and meet those criteria.

Q. DR. GORDON, FROM A POLICY PERSPECTIVE DO YOU BELIEVE THAT IT IS APPROPRIATE TO ENGAGE IN THE TYPE OF REBALANCING THAT IS BEING CONTEMPLATED BY THE COMPANIES' PLANS?

A. Yes, I do. In this testimony, I describe fully why I believe that the companies' revised plans are consistent with the criteria of the Tele-Competition Act that the Commission shall consider and why the revised plans would likely result in increasing competitive activity in the state of Florida. Specifically, the revised plans will create a more attractive local exchange market for residential consumers and lead to enhanced market entry—two criteria that need to be considered by the Commission in addressing the companies' revised plans. By making the residential local exchange market more attractive, residential consumers will likely see more companies competing for their business, which will, in turn, result in more options for residential consumers, improved services and lower prices for their telecommunications services. From a policy perspective, it is appropriate to accomplish these tasks.

In addition, I describe below the history of rate design for basic local services in the United States and how the end result of these policies has been uneconomically low residential basic local prices; lower than what one would expect to find in undistorted competitive markets. Of course, states have differed in their implementation of these policies and, as a result, residential basic local service prices vary quite a bit from state to state. In Florida, residential basic local prices are quite low when compared to prices in other states. In Table I below, I list the flat-rate charges for each of the three companies' lowest and highest rate groups compared to the national average flat-rate charges. As can

be seen in the table, each of the companies' highest rate group is well below the national average of $14.55 per month.

Table I – Comparison of Verizon, BellSouth and Sprint's flat-rate residential basic local charges and National Average flat-rate charges

Company	Lowest Rate Group	Highest Rate Group	Unweighted Average	National Average (2002)
Verizon	$9.72	$12.06	$10.89	
BellSouth	$7. 57	$11.04	$9.31	
Sprint	$7.63	$11.48	$9.56	
National Average (2002)				$14.55

Source: Florida Senate Staff Analysis And Economic Impact Statement, p. 4, April 8, 2003; FCC *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service*, Table 1.1 July 2003, rates exclude Federal and State subscriber line charges, touch tone charge and taxes, 911 and other charges.

Q. HOW DOES THE FACT THAT FLORIDA HAS LOW RESIDENTIAL BASIC LOCAL TELECOMMUNICATIONS PRICES RELATE TO THIS PROCEEDING?

A. It relates to this proceeding in two important ways. First, the Legislature has correctly perceived that low residential basic local prices have led the residential local exchange market to be less attractive to competitors than would be the case with more economically rational residential basic local prices. In Section III below, I describe fully why, from an economic perspective, I believe the Legislature is absolutely correct on this point. Put

simply, holding all other factors constant, the lower the residential basic local price (when set governmentally without regard to whether the prices cover cost), the more unattractive those customers are to actual and potential competitors. Since Florida residential basic local prices are lower than those in many other states, and in fact lower than the national average, the problem facing potential new entrants as a result of these low rates is likely to be even more severe and pronounced in Florida than in other states. For this reason, it is even more important that Florida policymakers tackle this problem sooner rather than later.

Q. IS THERE ANY SUPPORT FOR YOUR ASSERTION THAT THE PROBLEM OF AN UNATTRACTIVE RESIDENTIAL MARKET MAY BE WORSE IN FLORIDA THAN IN OTHER STATES?

A. Yes, there is some support for my assertion. The FCC compiles data on local telephone competition. Its most recent report, released June 12, 2003 included a table that lists, for each state available, the percentage of lines provided to residential and small business customers by ILECs and CLECs.[4] The FCC provided data on 40 states and of those 40 states Florida ranked 30th in the percent of CLEC lines that were sold to residential and small business customers. This means that in 29 out of 40 states, CLECs' served proportionately greater residential customers than in Florida (see Figure 1 at the end of this testimony). Florida ranks below states such as Georgia (58%), Alabama (52%), Louisiana (61%) and Virginia (70%) to name a few, all of which have higher residential prices. This provides some evidence that low residential basic local prices are having a

[4] *See, Local Telephone Competition: Status as of December 31, 2002*, Table 11, Industry Analysis and Technology Division Wireline Competition Bureau, Federal Communications Commission.

negative impact on residential competition in Florida.

Q. YOU MENTIONED THAT THERE WAS A SECOND REASON WHY YOU BELIEVE THAT FLORIDA'S LOW RESIDENTIAL BASIC LOCAL PRICES, IN COMPARISON WITH OTHER STATES, ARE RELEVANT IN THIS PROCEEDING. WHAT IS THAT SECOND REASON?

A. The second reason has to do with affordability considerations and the flexibility this Commission has in rebalancing rates while still maintaining basic residential local rates that are quite affordable for most Floridia consumers. As mentioned above, the companies' prices for residential basic local services are generally well below the national average. However, Florida is not a poor state. According to data from the U.S. Bureau of Economic Analysis, Florida is on par with the national average in personal income per capita.[5] Specifically, as of 2001, the data show that personal income per capita in Florida was $29,047 compared to the national average of $30,413. Thus, the Commission has the flexibility to increase residential basic local prices, which are currently well below the national average, to more economically reasonable levels without making the services unaffordable to Florida consumers.

At the same time, Florida consumers will pay less for intrastate toll calls. The companies' rebalancing plan will lower the access charge component of the cost of producing intrastate toll calls. IXCs are required to pass these cost savings through to consumers in the form of lower prices. Thus, even with the increase in basic residential local rates, telecommunications will be just as affordable to Florida consumers as before, yet

[5] Bureau of Economic Analysis, Regional Economic Information System, Table SA1-3.

consumers will be better off because they will be consuming a different mix of telecommunications services that provides more value than they are currently receiving.

In addition, the Tele-Competition Act also requires that any increase in basic local service rates not apply to Lifeline customers and that the ILECs increase Lifeline participation to 125 percent of federal poverty income level.[6] These requirements further protect low-income consumers—and it is low-income consumers who would be most prone to disconnections in the face of price increases—thus providing the Commission with even more flexibility to approve the companies' rate rebalancing request with minimal concern that such a rate restructuring would negatively affect subscribership. I discuss this point, and other reasons why I believe the companies' revised plans will not negatively affect subscribership in Florida, in more detail in Section VI below.

Q. VERIZON, BELLSOUTH AND SPRINT ARE FILING THEIR REVISED PLANS AT THE SAME TIME. IS THERE ANY PUBLIC POLICY BENEFIT TO HAVING THE COMMISSION REVIEW THE COMPANIES' REVISED PLANS AT THE SAME TIME?

A. Yes. The benefits are at least threefold. First, to the extent that basic local rates are simultaneously adjusted closer to their costs throughout the territory of the three companies serving 98 percent of the ILEC customers, the better competition will be benefited and market entry enhanced. Certain providers who might be positioned to provide facilities-based basic local service (e.g. cable telephony, electric and wireless providers) will not necessarily configure their coverage areas based on the ILECs service

[6] § 364.10(3)(a).

territories. For them the potential staggered implementation of the rebalancing could be an obstacle to competitive entry. There are several areas within Florida where at least two of the three major ILECs provide service where it may be economical for a new entrant to provide service regardless of the ILEC boundary. For example, the Orlando/Central Florida (BellSouth/Sprint) area, Southwest Florida (between Sarasota and Ft. Myers (Verizon/Sprint)) area and the Pensacola – Ft. Walton – Destin -- Panama City (BellSouth/Sprint/BellSouth) area are three relatively compact geographic areas served in part by at least two of the three companies. Each of these areas might appropriately comprise the service territory of a single facilities–based entrant. When the price increases contained in the company plans are implemented and signal to these entrants that pricing distortions are being reduced on a broad basis, the competitors may be able to more efficiently execute their business plans.

Second, it is also important to avoid unnecessary marketplace distortions that could affect the purchase decisions of end-users. End-users normally make their purchase decisions based in large part on relative price differences among providers. If the rate-rebalancing is not implemented across all companies simultaneously, end-users will make these decisions based on incomplete and imperfect information as they see some providers' rates increasing while other providers' rates remain the same (at least temporarily). The risk will be that regulatory scheduling rather than the relative costs and benefits of various service offerings becomes the driving force behind consumers' decisions. For example, it is easy to imagine a situation involving two or more of the ILECs —where a CLEC might be able to offer service at a legitimate cost savings to all customers, but if re-balancing is not done simultaneously perhaps only one firm's customers would respond to the competitive offer, because the other firm's rate increase had yet to be implemented.

Coordinated rate rebalancing across all companies will ensure that potential competitors are not artificially disadvantaged when introducing new service offers by artificial boundaries, and that customers are not disadvantaged by incorrect and incomplete information driving their purchase decisions.

Third, the magnitude and timing of the access charge price reductions for the three companies would also benefit end users statewide. IXCs will be able to implement more meaningful price reductions if they can aggregate their access cost reductions into a single round of pricing changes.

Q. THE LEGISLATION PERMITS A COMPANY TO RESTRUCTURE ITS RATES OVER A MINIMUM OF TWO YEARS AND A MAXIMUM OF FOUR. EACH OF THE COMPANIES PLANS TO HAVE INTRASTATE ACCESS RATES REACH PARITY WITH INTERSTATE RATES OVER A TWO-YEAR PERIOD. DO YOU BELIEVE THIS IS A GOOD IDEA?

A. Yes I do, for several reasons. First, it is clearly permitted by the Tele-Competition Act. Second, it is a matter of economic principle that economic welfare is at its highest when prices are based on their underlying forward-looking costs and are not distorted. As I discuss in greater detail in Section III, prices that are distorted provide inferior signals for market participants and result in losses in consumer welfare because investment and purchase decisions by firms and consumers do not reflect the true costs that society incurs to provide the services. The companies' revised plans reduce these pricing distortions in the Florida telecommunications markets sooner rather than later and, by so doing, achieve economic efficiency gains sooner as well.

Third, a possible reason why one would prefer a more gradual rate restructuring time frame has to do with avoiding consumer "rate shock". As the words imply, rate shock implies that the increase in price proposed by the company is so high, that consumers would be obviously and adversely affected. However, based upon my personal experience as a former commissioner, as well as what I have observed in other states, I do not believe that the yearly increase in basic local prices will result in rate shock.

Q. PLEASE EXPLAIN WHY YOU BELIEVE THAT THE COMPANIES' PLANS WILL NOT RESULT IN RATE SHOCK.

A. The companies' revised plans will result in relatively minor increases in a customer's basic local price. In addition, as I stated earlier, these price increases will not even apply to current Lifeline consumers and new Lifeline consumers who have become eligible as a result of the Tele-Competition Act raising the income threshold to 125% of the poverty level.

In addition, with the reduction and elimination of the in-state connection fees, many customers might not even experience a significant change in their total bill. If there is an increase in the customers' bill, it will likely result in large part from increased stimulation from lower long distance charges that represent real gains to consumers because they are now able to make more calls at the new lower prices.

Finally, the companies' revised plans compare favorably with other states that have approved rate-rebalancing plans that approved much larger increases than the companies' request Importantly, these states' price adjustments did not jeopardize universal service. In Section VI, I also discuss the experience of some of the states that have already

implemented serious rate rebalancing plans, including Massachusetts where I presided as Chairman through one such adjustment.

III. THE COMPANIES' REVISED PLANS WILL RESULT IN A "MORE ATTRACTIVE COMPETITIVE LOCAL EXCHANGE MARKET FOR THE BENEFIT OF RESIDENTIAL CONSUMERS" AND WILL INDUCE "ENHANCED MARKET ENTRY"

Q. HOW DO YOU JUDGE WHETHER THE COMPANIES' REVISED PLANS MEET THE CRITERIA OF § 364.164 (1) (a) AND (b)?

A. § 364.164 (1) (a) states that the companies' plans should remove the current support for basic local telecommunications services that is impeding the creation of a more attractive competitive local exchange market for the benefit of residential consumers. In order for the companies' revised plans to meet the first criterion, they must show that the revised plans remove—or at a minimum reduce—support for basic local telecommunications. By so doing, they create a more "attractive" competitive local exchange market, because the price to be competed against by new entrants is raised to more closely reflect the real economic costs of doing business. The second criterion for the Commission's consideration is § 364.164 (1) (b) which simply states that the plans should induce enhanced market entry and no distinction is made between residential or business consumers.[7]

[7] There are other criteria in § 364.164 (1) that I do not discuss but that are the subject of the companies' respective witnesses.

Therefore, in evaluating whether the companies' revised plans meet the criteria in these sections, I must ascertain whether the revised plans: (1) remove current support for basic local telecommunications services, and (2) will likely result in a more attractive competitive environment that would benefit residential consumers and induce enhanced market entry.

Q. DO THE COMPANIES' REVISED PLANS REMOVE CURRENT SUPPORT FOR BASIC LOCAL TELECOMMUNICATIONS SERVICES?

A. Yes, the companies' revised plans significantly decrease current support for basic local telecommunications services. The revised plans do this by reducing the prices of a service that has historically been set by regulators to provide an important source—but by no means the only source—of support for basic local services, namely, intrastate switched network access.

Q. WHY DO YOU BELIEVE THAT INTRASTATE SWITCHED NETWORK ACCESS CURRENTLY SUPPORTS BASIC LOCAL TELECOMMUNICATIONS SERVICES?

A. There are two reasons. The first is the historical rate design policy prevalent in telecommunications regulation in Florida and throughout the United States. As I mentioned earlier, historically, telecommunications rate design was premised on the policy goal—at times stated and sometimes left implicit—of keeping the price of basic local telecommunications low or as low as possible. This policy began early on in telecommunications regulation and was accomplished through the rate design mechanisms that were part and parcel of traditional regulation. Traditional regulation required two broad steps. The first was to determine a revenue requirement that was sufficient to meet

the prudently incurred operating expenses and a reasonable return on prudently invested capital. The second broad step was the rate design process, which determined the price of each regulated service to ensure that the regulated company had the opportunity to recover its revenue requirement from its regulated service.[8] Normally, a proper rate design process would require that the price of any service recover at least its underlying cost and, in addition, contribute to the firm's shared and common cost in some manner. At times that manner was consistent with economic efficiency goals—as when demand considerations were taken into account—and at other times it was more reflective of other policy considerations—as when an equal percentage markup was applied across the board to the different services.

For basic local services, however, in most instances the price was set on a residual basis without taking into consideration the underlying cost of providing basic local telecommunications. That is, the goal of residual pricing was to keep basic local prices low, or as low as possible, and to recover more revenue from other telecommunications services, constrained by what consumers were willing to pay for the non-basic telecommunications services and by—as competition began to become more prevalent in telecommunications markets—the threat of customers bypassing the public switched telecommunications network.

Prior to divestiture of AT&T in 1984, toll prices provided the bulk of support for basic local telecommunications services. As technological advances lowered the cost of

[8] I say opportunity to recover its revenue requirement because the regulatory process does not generally guarantee a regulated company a certain return, it only provides the regulated company the opportunity to earn a certain return.

providing toll services, toll prices did not decrease commensurately and were used as a means to support basic local telecommunications services—i.e., to keep the prices of basic local lower than would otherwise be the case. After divestiture of AT&T, interstate and intrastate switched network access services were substituted as a means of supporting basic local telecommunications services.

Notably, even after the substitution of price cap regulation for traditional regulation, the cross subsidies that were present under traditional regulation have been maintained.

The notion that intrastate switched network access services have been used as a source of support for basic local telecommunications is confirmed in the Florida *Senate Staff Analysis and Economic Impact Statement on the Tele-Competition Act*, where it states:

> According to the commission, intrastate network access service rates were set well above the incremental cost of providing the service in order to keep rates for basic local telecommunications service as low as possible and to encourage subscribership.[9]

The second reason why I believe that intrastate access services currently support basic local service is cost considerations. As described in the testimonies of their witnesses, the companies have established that the price of residential basic local telecommunications services is below forward-looking direct cost estimates. From an economic perspective, whenever the revenues from a service are insufficient to recover its forward-looking direct costs, that service is said to be in receipt of an economic subsidy. The source of the

[9] *See* Senate Staff Analysis and Economic Impact Statement on CS/SB 654, April 8, 2003.

subsidy—including that for residential basic local services—comes from all those services that are priced above their respective forward-looking direct costs. As a whole, these services contribute to the support of residential basic local. Because intrastate access services are priced significantly above their forward-looking direct costs, this means that intrastate switched network access services are supporting basic local service.

Q. DOES THIS IMPLY THAT THERE MAY BE OTHER SERVICES, BESIDE INTRASTATE ACCESS SERVICES, THAT MAY ALSO BE SUPPORTING BASIC LOCAL TELECOMMUNICATIONS SERVICES?

A. Yes, that is correct. In general, for multi-product firms, where there are significant amounts of shared and common costs, firms must, in the aggregate, price their services above forward-looking direct costs in order to earn sufficient revenues to remain viable. When one service is priced below its forward-looking direct costs, as is the case for residential basic local telecommunications services, other services that are priced above forward-looking direct costs are supporting the service that is priced below its own forward-looking direct costs.

The Florida Legislature, however, has specifically determined that it is the support provided by intrastate switched network access that is to be reduced. The Tele-Competition Act calls for rebalancing to take the form of lowering intrastate access rates to parity—over a 2 to 4 year period—with interstate switched network access rates and to simultaneously increase basic local telecommunications services by an amount sufficient to make up the revenue over the same time period. Under this approach, there is still no guarantee that residential basic local services recover at least their forward-looking direct costs once intrastate access rates are set to parity with interstate switched access rates. In

fact, according to the companies' evidence, residential rates will still be below forward-looking direct costs even when intrastate switched network access rates reach parity with the interstate rates.

Therefore, while the companies' revised plans are consistent with the criteria to be considered by the Commission, the plans do not result in the complete rebalancing of rates. Thus, there will still likely be some (lesser) distortions in prices even after the implementation of the plans.

Q. AS AN ECONOMIST, DO YOU BELIEVE THAT REBALANCING IS COMPLETED ONCE BASIC RESIDENTIAL PRICES ARE SET AT FORWARD-LOOKING DIRECT COSTS?

A. While having basic local services recover at least their underlying forward-looking direct costs is a good first step, it would not necessarily result in economically efficient prices. As I discuss in greater detail below in Section IV, economically efficient prices require that a multi-product firm's shared and common costs be recovered through markups on each service or product above forward-looking direct costs in a manner that least distorts economic efficiency. Therefore, to have economically efficient basic local prices would likely require that basic local services be priced above forward-looking direct costs. However, as markets become more competitive, markups will be limited by the need to be competitive with other firms in the market.

Q. HAVING ESTABLISHED THAT THE REVISED PLANS REMOVE CURRENT SUPPORT FOR BASIC LOCAL, § 364.164 (1) (a) PROVIDES THAT, AS A RESULT OF THE REMOVAL, THEY WILL RESULT IN A MORE

ATTRACTIVE COMPETITIVE LOCAL EXCHANGE MARKET FOR THE BENEFIT OF RESIDENTIAL CONSUMERS. WILL THE COMPANIES' REVISED PLANS MEET THIS CRITERION?

A. Yes, the companies' revised plans will create a more attractive competitive local exchange market for the benefit of residential consumers. Economic theory and empirical research both indicate that this will likely be the case. I discuss these two factors below.

Q. PLEASE DISCUSS WHY YOU BELIEVE THAT ECONOMIC THEORY SUGGESTS THAT THE COMPANIES' REVISED PLANS WILL LIKELY RESULT IN A MORE ATTRACTIVE COMPETITIVE LOCAL EXCHANGE MARKET FOR THE BENEFIT OF RESIDENTIAL CONSUMERS?

A. One of the key components of the companies' revised plans is that intrastate access revenues will be decreased in a revenue-neutral manner by increasing the price of (and revenue from) basic local telecommunications services for residential consumers. The cost information provided by the companies in this proceeding indicates that residential basic local telecommunications prices are currently below forward-looking direct costs. Increasing the price of a service, especially a service that is below forward-looking direct costs, will make for a more attractive market for actual and potential competitors. Competitors will not rationally try to compete against heavily subsidized prices.

Q. WOULD YOU PLEASE EXPLAIN WHY YOU BELIEVE THIS TO BE THE CASE?

A. In a market economy, prices are the essential tool that send signals to market participants that, in turn, determine market behavior and outcomes. For example, as prices increase or decrease, consumers alter their consumption decision because the value consumers place

on goods and services changes in relation to price. Producers alter their production, investment and research and development decisions as well, because as prices increase or decrease, profits change along with them. It is the search for profits that drives firms to enter or expand into new markets. As prices change, potential entrants into the market will be affected as well. Lower prices may act to keep new firms from entering the market and higher prices more reflective of cost will tend to attract new firms into the market.

Like any other firm, the investment decision of a telecommunications competitor is based on the present value of the cash flows that the investment project is likely to generate over the useful economic life of the project. Holding all other factors constant, when the price of a service increases, a cash flow analysis would show that the investment project becomes more profitable (or less of a loss) and thus more attractive. In the case before us, an increase in the price of basic local telecommunications service would increase the revenues from residential basic local services in a cash flow analysis, thus increasing the attractiveness of providing those residential services. As a result of rate rebalancing, where the companies plan to raise residential basic local prices, the residential local exchange market will look more attractive to all actual and potential telecommunications providers of residential services.

Q. WILL THE COMPANIES' REVISED PLANS ALSO PROVIDE INCREASED INCENTIVES FOR OTHER COMPETING TELEPHONY TECHNOLOGIES?

A. Yes. An important reason for opening local telecommunications markets to competition is the belief that technological change is proceeding so rapidly that competitive markets will do a much better job than monopoly of discovering which technologies can or cannot

succeed in the long run. For example, access to customers for their telecommunications needs comes in the form of fixed-wireline access, wireless access, cable telephony, Internet, and potentially satellite and even access via electric utilities. Of course, not all of these technologies will necessarily survive in the long run and competition will likely lead to a mix of technologies surviving and providing the lowest possible cost for each consumer's telecommunications needs.

However, in order for the lowest-cost mix of technologies to remain in the market, prices and the signals they send must not be distorted and must reflect the underlying cost of providing service. The companies' revised plans move positively in this direction and encourage new entrants—regardless of the chosen technology—to enter or expand in the marketplace because even competitors using lower-cost (or more attractive) technologies may not be able to compete against a subsidized ILEC price that does not fully reflect its own costs. This would be a loss for consumers and the Florida economy.

Q. IS THERE EVIDENCE THAT OTHER FORMS OF ACCESS ARE COMPETING WITH FIXED-WIRELINE ACCESS?

A. Yes. The Florida Commission has recognized the actual and potential substitution occurring between fixed-wireline and other forms of access, including wireless and emerging IP-telephony providers. As the Commission states:

> Regarding the substitution of technology and services, as they are being found to be close substitutes to traditional wireline services, both wireless and

emerging broadband IP-telephony providers must be included in the analysis.[10]

In the same report, the Florida Commission cites nation-wide data indicating that about 5% of U.S. wireless subscribers have disconnected wireline service and conclude that substituting wireless for wireline services appears to be a national trend.[11] Moreover, as the same report concludes, Florida may be especially susceptible to this phenomenon because of the large population in Florida that also has residences in other states. For many of these consumers, "it makes little sense to continue paying for telephone service that sits idle much of the year when wireless enables them to stay connected wherever they are."[12]

The Florida Commission has also concluded that cable providers are competing directly with fixed-wireline providers. The Commission cites to national data that shows that by second quarter of 2002, there were 2.5 million cable telephony subscribers and that cable companies expect to see one-third of their digital cable households take cable telephony service by 2005.[13]

There is evidence that the Tele-Competition Act is already having a positive impact on competitors' incentive to enter and expand in the Florida market. On July 18, 2003, Knology, a provider of broadband and voice telephony services, announced it has entered

[10] *See*, Florida Public Service Commission, *Telecommunications Market in Florida Annual Report on Competition As of June 30, 2002*, December 2002, p. 6.

[11] *Ibid*, at 7.

[12] *Ibid*, at 9.

[13] *Ibid*, at 10.

into a definitive agreement to purchase certain assets from Verizon Media Ventures, Inc.[14] Knology offers local and long distance telephone service and its purchase of Verizon's Americast cable system will permit it to compete directly with Verizon. In its press release announcing its decision, Knology stated:

> In commenting on this transaction, Knology noted that the Tele-Competition Act recently enacted in Florida positively influenced its decision to expand operations in the state. This Act, as written by the Florida Legislature and supported by Governor Bush, laid the foundation for companies like Knology to enter the Florida market, and offer competitive services and products to consumers.

Q. IS THERE EMPIRICAL EVIDENCE THAT SUPPORTS YOUR VIEW THAT RATE REBALANCING WILL LIKELY MAKE THE RESIDENTIAL LOCAL EXCHANGE MARKET MORE ATTRACTIVE?

A. Yes, there is empirical evidence. Two of my colleagues at NERA investigated empirically whether low residential basic local rates were having any impact on competition in the states and, specifically, whether low rates were hindering the development of residential competition.[15] In that paper, the authors hypothesized that inefficient local exchange prices are having an impact on competition and that, specifically, low residential prices are inhibiting competition for residential customers. To test their hypotheses, the authors compared how local competition varied across the different states depending on how

[14] *See*, Knology Press Release July 18, 2003, *Knology Announces Agreement to Purchase Broadband Asset*.

[15] *See*, Agustin J. Ros and Karl McDermott, "Are Residential Local Exchange Prices Too Low? Drivers to Competition in the Local Exchange Market and the Impact of Inefficient Prices," in Michael Crew, *Expanding Competition in Regulated Industries*, Kluwer Academic Publishers, 2000.

"unbalanced" were local exchange prices. Specifically, the authors estimated several cross-section econometric models of facilities-based competition, controlling for things such as cost and demand considerations in the different states. The authors also included several policy variables, including one that measured the degree to which residential local exchange prices were "distorted" in each state. The authors summarized their results, as they pertained to residential competition, as follows:

> Using OLS and GLS estimates we found a significant and positive association between states that have more "balanced" tariffs and residential competition. For two measures of residential competition used in our data, we found that "rebalancing" tariffs by 10% leads to approximately a 9% and 13% increase, respectively, in residential competition.[16]

In addition, James Eisner (an FCC staff member) and Professor Dale E. Lehman performed a somewhat similar study.[17] Eisner and Lehman state in their conclusion:

> ...in some specifications, there appears to be less competitive entry (principally facilities-based) where residential rates are lower. These findings are generally statistically significant at the 90% level.[18]

Finally, another empirical study examined rate rebalancing in Latin America and found that rate rebalancing in some Latin American countries has led to increases in the supply

[16] *Ibid.*, at 167.

[17] *See*, James Eisner and Dale E. Lehman, *Regulatory Behavior and Competitive Entry*, presented at the 14th Annual Western Conference Center for Research in Regulated Industries, June 28, 2001. The authors' main motivation appears to have been ascertaining how regulatory behavior—as it pertains to unbundled loop prices and 271 entry—affects competitive entry. Nevertheless, they control for local exchange prices as well.

[18] *Ibid*, p. 25.

of main telephone lines by providing better incentives to market participants.[19]

In summary, both economic theory and the empirical literature suggest that the companies' revised plans—by setting residential rates at more economically efficient levels—would likely make the residential local exchange marketplace more attractive to actual and potential competitors.

Q. BUT ISN'T IT THE CASE THAT CLECS ALREADY HAVE ENOUGH INCENTIVES TO SERVE LUCRATIVE RESIDENTIAL CUSTOMERS?

A. Yes, it is probably the case that CLECs have enough incentive to serve a subset of residential customers, namely those customers that are very profitable either because the cost of serving them is especially low or because their volumes are unusually high. But the promise of the Tele-Competition Act is to ensure that competition for residential customers is as broad and diffuse as is economically feasible, and by better aligning the prices of residential basic local services with their underlying costs, a broader base of residential customers will obtain the benefits of competition.

Q. § 364.164 (1) (b) PROVIDES THAT THE COMPANIES' PLANS CONSIDER THE EFFECT ON ENHANCED MARKET ENTRY. WILL THE COMPANIES' REVISED PLANS MEET THIS PROVISION?

A. Yes, the companies' revised plans will induce enhanced market entry. Above, I have discussed how the revised plans would likely create a more attractive competitive local

[19] *See*, Agustin J. Ros and Aniruddha Banerjee, "Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America," *Telecommunications Policy*, 24 (2000) 233-252.

exchange market for the benefit of residential consumers. This is an example of how the revised plans will induce enhanced market entry.

In general, the companies' revised plans will provide for improved entry signals into the local exchange market by diminishing distorted price signals that may encourage uneconomic entry into the overpriced markets. Prices that are free of distortions will lead to several economically-efficient outcomes known as allocative, technical and dynamic efficiencies. First, efficient pricing assumes that the marginal cost that society incurs to produce goods and services reflects the value that consumers place on the good or service consumed, (allocative efficiency). Second, optimal signals are provided to firms in the industry (e.g., whether to increase production or exit the industry) and to potential entrants contemplating entering the market. This ensures that it is the lowest cost firms that stay in the market and provide goods and services. In this way the use of society's scarce resources is minimized (technical efficiency). Third, prices that adequately cover costs ensure that appropriate incentives exist for improvement in technology, increased research and development and higher quality goods and services (dynamic efficiency).

Q. UNDER WHAT CONDITIONS CAN IT BE SAID THAT PRICES ARE FREE OF DISTORTION, AND ARE THE COMPANIES' CURRENT PRICES FOR BASIC LOCAL SERVICES FREE OF DISTORTIONS?

A. Prices are free of distortion when: (1) they recover at least the forward-looking incremental cost of production and (2) for multi-product firms, markups above incremental costs take into account demand characteristics in the market, subject, of course, to the need for the firm to meet competition. As described in the companies' cost testimonies, the companies' prices for basic local residential services are not recovering

the forward-looking direct cost of production. As such, prices for these services do not meet the economic criterion that prices should at a minimum recover the forward-looking direct cost of production.

By adopting the companies' revised plans, however, the Commission will be reducing significantly the distortions in the price of intrastate access and residential basic local services and achieving the economically efficient outcomes described above.

IV. OTHER ECONOMIC BENEFITS FROM THE COMPANIES' REVISED PLANS

Q. ARE THERE OTHER ECONOMIC BENEFITS THAT WILL LIKELY ARISE FROM THE COMPANIES' REVISED REBALANCING PROPOSAL?

A. Yes, there are other economic benefits that will likely arise from the companies' revised rebalancing proposals. Both economic theory and empirical research suggest that rate rebalancing will likely increase economic activity in Florida as increased competition brings benefits to Florida consumers of telecommunications services.

Q. WOULD YOU PLEASE DESCRIBE WHY ECONOMIC THEORY SUGGESTS THAT RATE REBALANCING WILL INCREASE ECONOMIC ACTIVITY IN FLORIDA?

A. Rate rebalancing consists of increasing the prices of services that are priced below forward-looking direct costs and reducing the prices of services that are priced significantly above forward-looking direct costs. As mentioned earlier in my testimony, the history of telecommunications rate design is such that residential basic local prices

were set low and usage services (such as toll and intrastate access services) were set high.

However, economic theory teaches that economic efficiency (and overall consumer welfare) is at its highest level when prices of goods and services in an economy are set at forward-looking direct cost. Of course, in industries where there are significant fixed costs—that give rise to economies of scale—and in multi-product firms where there are significant amounts of shared and common costs, pricing services at forward-looking direct cost does not permit the firm to earn sufficient revenues to recover all its costs. Under such conditions, markups above forward-looking direct costs are required. Specifically, as competition develops, those services that are more price elastic will likely receive a proportionately lower markup above cost than those services that are more price inelastic.

Q. PLEASE DESCRIBE HOW REBALANCING RESULTS IN INCREASED ECONOMIC ACTIVITY IN FLORIDA?

A. The companies' revised plans will lower intrastate access prices, which will in turn result in lower intrastate toll prices, as required by the Tele-Competition Act. As a result of the reduction in intrastate toll prices, Floridia consumers will use more toll services. This will create value for them that they are not now receiving. This, in turn, will reflect an increase in economic activity in Florida. In addition, and of more direct importance to this proceeding, more cost reflective prices for local service will send signals to competitors that will more efficiently guide their investment decisions, and in all likelihood, increase their investment beyond what it is in the face of today's artificially low prices. Thus, rebalancing will generate significant gains in economic activity in Florida. It is important to stress the point that demand for access to the network by consumers depends not only

on the price of network access but it also depends on the value that consumers obtain (consumers' surplus) from using the network. While higher network access prices may, in theory, decrease the quantity of access consumed, the concomitant decrease in long distance price will increase the quantity of access consumed. Empirical evidence suggests that, in net, we may well find that rebalancing leads to more consumers subscribing to the network.[20]

Q. IS THERE EMPIRICAL EVIDENCE THAT QUANTIFIES THE AMOUNT OF ECONOMIC BENEFIT THAT A REBALANCING PLAN CAN GENERATE?

A. Yes, there is empirical support. There have been several studies that have examined the welfare gains arising from rate rebalancing. One of the first studies found that, for the U.S. as a whole, the loss from overpricing long distance service to business and residential consumers in 1983 was around $10 billion, a finding that was confirmed in subsequent research.[21] More recent research confirms the significant gains in economic welfare that can be achieved from more economically rational prices. For example, a 2000 study by Robert Crandall and Leonard Waverman (a NERA colleague) found the total cost of the current rate design—i.e., lower basic local prices and higher long distance prices—to be anywhere between $2.5 to $7.0 billion per year, depending on the assumptions made.[22]

[20] *See,* Hausman, J., T. Tardiff, and A. Belinfante, "The Effects of the Breakup of AT&T on Telephone Penetration in the United States," *The American Economic Review*, Vol. 83, May 1993, pp. 178-184.

[21] *See,* John T. Wenders and Bruce L. Egan, "The Implications of Economic Efficiency for U.S. Telecommunications Policy," *Telecommunications Policy* 10 (1986): 33-40 and Lewis Perl, "Social Welfare and Distributional Consequences of Cost-Based Telephone Pricing." Paper presented at the Thirteenth Annual Telecommunications Policy Research Conference, Airlie, Va. April 23, 1985

[22] *See,* Robert Crandall and Leonard Waverman, *Who Pays for Universal Service?: When Telephone Subsidies Become Transparent*, Brookings Institute, (2000), p. 119.

V. COST ISSUES

Q. WHAT IS THE CORRECT COST CONCEPT TO USE FOR DETERMINING WHETHER A SERVICE IS RECEIVING AN ECONOMIC SUBSIDY?

A. From an economic perspective, use of forward-looking direct costs (economic costs as opposed to embedded or historical costs) is the proper basis for determining whether a specific service is in receipt of an economic subsidy. The embedded cost or historical cost of an activity is a record of the costs a firm attributes to the pursuit of its activity in a given (past) accounting period. That cost reflects what the firm actually paid for capital equipment,[23] its actual costs of operating and maintaining that equipment, and other costs incurred in operating the enterprise. By contrast, the economic cost of an activity is the actual forward-looking cost of accomplishing that activity in an efficient manner. In contrast to embedded costs, forward-looking costs are those associated with present and future uses of the firm's (or society's) resources. Only these forward-looking costs are relevant for making present and future production and investment decisions, for placing resources in alternative uses, and for setting efficient prices for the services to be provided presently or in the future.

According to the evidence presented by the companies, their residential basic local rates are below forward-looking direct costs and I conclude, therefore, that those rates are in receipt of an economic subsidy.

[23] Embedded costs also include the annual depreciation expenses associated with the stock of equipment that (1) was purchased in the current and previous years and (2) is still in use.

Q. THE COMPANIES' REVISED PLANS ARE BASED UPON THE FACT THAT THE LOCAL LOOP IS NOT A SHARED OR COMMON COST AND THAT ITS COST IS CAUSED SIMPLY BY PROVIDING CUSTOMERS ACCESS TO THE TELEPHONE SYSTEM AND CANNOT APPROPRIATELY BE SPREAD AMONG THE REMAINING TELEPHONE SERVICES. DOES THE FLORIDA COMMISSION AGREE WITH THIS APPROACH REGARDING THE LOCAL LOOP?

A. Yes, it does. In a report to the Florida Legislature in 1999, the Commission explicitly rejected the notion that the cost of the loop should be recovered from non basic local telecommunications service.[24] In that report, the Commission stated:

> Is the cost of local loop facilities properly attributable to the provision of basic local telecommunications service? By definition, yes. Section 364.02(2), Florida Statutes, defines "basic local telecommunications service as"
>
> > Voice grade, flat-rate residential and flat-rate single-line business local exchange services which provide dial tone, local usage necessary to place unlimited calls within a local exchange area, dual tone multi-frequency dialing, and access to the following emergency services such as "911," all locally available interexchange companies, directory assistance, operator services, relay services, and an alphabetical directory listing.

[24] *See*, "Report of the Florida Public Service Commission on the Relationship Among the Costs and Charges Associated with Providing Basic Local Service, Intrastate Access, and Other Services Provided by Local Exchange Companies, in Compliance with Chapter 98-277, Section 2(1), Laws of Florida," Florida Public Service Commission Tallahassee, Florida February 15, 1999.

Given such an identification of the cost object to be studied, the principle of cost causation leads one to the unavoidable conclusion that the decision to have local service leads to the incurrence of loop costs.[25]

VI. UNIVERSAL SERVICE WOULD NOT BE PUT AT RISK AS A RESULT OF THE COMPANIES' REVISED PLANS

Q. SHOULD THE COMMISSION BE CONCERNED ABOUT UNIVERSAL SERVICE?

A. While it is true that, in theory, as the price of basic local service increases, some consumers may decide the new price is above the value he or she places on the service—and may, as a result, decide to do without telephone service—I do not believe that, in practice, this would occur, or occur to such an extent as to jeopardize universal service in Florida. There are several reasons why I believe this is the case.

First, although low-income subscribers may be more sensitive to price increases than are middle and higher income users, the Tele-Competition Act does two things to help low income consumers. It provides that, in the event of an increase in residential basic local service prices, low-income consumers who are Lifeline customers will be exempted from the price increase; and, it expands the number of Lifeline-eligible customers to 125 percent of the federal poverty level. These steps should go far to address any problems of affordability.

[25] *Ibid*, at 51.

Second, the price elasticity of demand for access to the network is quite low, meaning that the vast majority of consumers will continue to subscribe. Specifically, the price elasticity of demand measures the percentage impact on demand given a percentage change in price. Previous research has demonstrated that customers generally do not disconnect their phone service when prices for basic local service increase.[26]

Third, and very importantly, in addition to its own price, the demand for residential basic local service is determined by the amount of value consumers obtain from using the services produced by the network, i.e., local calling, intraLATA toll, interLATA toll, vertical services and newer services such as broadband Internet access. As prices for these services decrease over time due to competitive pressure and technological innovation, the value that consumers place on having access to the network increases and so, therefore, does their demand to stay on the network.[27] The companies' revised plans call for rate increases phased in over a two year period and to the extent that prices for complementary goods decrease so will consumers' desire to remain on the network increase. This helps reduce, or may even offset, the negative effect of the price increase.

Finally, as discussed above, less distorted prices should provide better incentives for competitors to compete for residential consumers. Competition brings with it improved quality, different selection of goods and services bundled together in a way that customers find attractive, and lower prices. These factors provide additional reasons why during the

[26] *See,* Lester D. Taylor, (1994), *op. cit.*

[27] Hausman, J., T. Tardiff, and A. Belinfante, "The Effects of the Breakup of AT&T on Telephone Penetration in the United States," *The American Economic Review*, Vol. 83, May 1993, pp 178-184.

phase-in period, customers will likely place increased value on subscribing to the network, thus mitigating the effects of any local rate increase.

To the extent the Florida Commission is concerned with the few remaining users who may decide to drop off the network it is also important to be aware that alternatives to the fixed network are growing and at least some customers may be turning to alternative means of meeting their communications needs. For example, the extraordinary growth of wireless service, driven by lower wireless prices and pricing plans that include a "bucket" of minutes provides customers with more meaningful opportunities to use wireless service as a substitute to wireline service.

Q. SHOULD THE COMMISSION BE CONCERNED IF CUSTOMERS DROP OFF THE FIXED NETWORK BUT INSTEAD RELY PRIMARILY ON OTHER FORMS OF ACCESS?

A. No. An important goal for policymakers has been to ensure that as many consumers as possible have access to the public switched telecommunications network, irrespective of how that access is obtained. When a customer drops off the fixed-line network and accesses the public network via wireless access, this is simply a substitution effect caused by the customer choosing between fixed and wireless access. This is not a universal service concern for policymakers.

Q. DR. GORDON, HAVE OTHER STATES IMPLEMENTED RATE REBALANCING?

A. Yes, there are other states that have implemented rate rebalancing including California, Illinois, Ohio, and in Massachusetts where I served as Chairman. Even in Maine, where

by statute basic residential services are to be set as low as possible and where I also served as Chairman, they have recently approved a rebalancing plan.

Q. WOULD YOU PLEASE DESCRIBE THE RATE REBALANCING PROCESS IN MASSACHUSETTS?

A. The process for changing prices in Massachusetts began before I became Chairman of the Massachusetts Commission and continued during my tenure. In Massachusetts, residential fixed monthly charges were increased significantly, with offsetting decreases in business, toll, and carrier access prices. The Massachusetts Commission early on after divestiture recognized the problems that historic pricing policies were creating, as other (especially institutional) barriers to market entry were being eliminated, and thus ordered a change in price structure:

> "properly defined incremental costs should be used as the primary basis for pricing all services, including local exchange service .. to the extent that current rates do not reflect an appropriate allocation of costs, the [MDPU] will, consistent with the need to avoid major discontinuities in rate levels, move toward that goal." IntraLATA Competition, D.P.U. 1731 (1985), p. 36-38.

> "Traditionally, the pricing of telephone service was based on a method whereby residential monthly exchange rates were priced below cost in order to promote universal service; and long-distance, toll, and business rates were priced above cost in order to subsidize residential exchange rates. While this system succeeded in serving a social purpose, it was a pricing scheme not conducive to the development of a fully-competitive market, in which the benefits associated with competition would be realized by all customers."

NET, D.P.U. 93-125 (1994), pp. 10-11.

In Massachusetts, moving prices more in line with incremental costs required a significant shift in revenue recovery from usage-based prices, such as intraLATA toll and intrastate carrier access, to fixed monthly prices for all classes of customers. In addition, because the MDPU found that there were no significant cost differences in serving different classes of customers, the price-rebalancing process also entailed a further shift in revenue recovery from business customers to residential customers. Of course, the necessary changes were not made overnight. The MDPU established a series of annual, revenue-neutral, price-rebalancing investigations in order to achieve its goal over time.

When the Massachusetts price-rebalancing process ended in January of 1994 (with the adoption of a price cap plan), the price for basic residential dial-tone service (1MR) had risen from about $3.00 per month in 1990 to $9.91 per month in 1994 (net of the SLC).[28] Comparable increases also occurred for residential flat-rate service (1FR), which was the most popular service in Massachusetts, at that time. Flat rate residential prices had ranged from $9.95 in rural areas to $12.38 in urban areas. The rebalancing process moved flat rate residential prices to $16.85 state wide. During this period, the average increase for residential consumers was $2.18 per year over four years and, according to the DTE, record evidence shows virtually no impact on residential telephone subscriber penetration.[29] Because the price-rebalancings were revenue-neutral, these increases were

[28] I was Chairman of the MDPU for the last of these annual investigations.

[29] *See*, "Re Verizon New England, Inc. dba Verizon Massachusetts D.T.E. 01-31-Phase II," *Public Utilities Reports – 223 PUR4th*, p. 397.

completely offset by decreases in prices for other services, notably residential and business intraLATA toll and carrier switched access.

Massachusetts was one of the first states to open toll and local markets to competitive entry, and the price rebalancing helped to lessen opportunities for uneconomic bypass and thus promoted the development of an efficient competitive process.

More recently, Massachusetts has continued to better align prices with their underlying costs by reducing switched access and increasing residential dial-tone rates. Specifically, the DTE authorized the ILEC to implement a one-time increase of $2.44 to its residential dial-tone line charge. In commenting on its decision, the DTE stated:

> Moreover, the department finds that with the $2.44 increase in the dial-tone line charge, competitive local exchange carriers (CLECs) can profitably enter and serve the residential telephone market in Massachusetts.[30]

The DTE concluded that a $2.44 increase will not harm the Department's universal service goals, based on similarity to the several, annual $2.18 increase in the early 1990s rebalancing plans and comparable increases in several other states and in the Federal subscriber line charge since 2000. For example, the Maine PUC approved a $1.78 increase in Verizon's basic monthly per line rate in May 2001 and the New York Public Service Commission authorized a two-year Incentive Plan which permitted an increase of $1.85 on March 1, 2002 and another $0.65 on March 1, 2003 for a total increase of $2.50 in the space of a year. The FCC's Federal subscriber line charge has increase from $4.35

[30] *Ibid*, p. 361.

in July 2000 to $6.50 in July 2003.

Q. PLEASE DISCUSS MAINE'S EXPERIENCE WITH RATE REBALANCING?

A. Significant rate rebalancing has been achieved in Maine in recent years, with no noticeable impact on telephone subscribership levels. In 1997, the Maine legislature (M.R.S.A. 35-A, §7101-B) directed the Maine Public Utility Commission to establish, notwithstanding any other provision of state law, intrastate access rates that are less than or equal to interstate access rates established by the FCC (*i.e.*, parity with interstate access rates) by May 30, 1999. At the time, Bell Atlantic's intrastate access rates were $0.26 per minute, significantly higher than its then-current Federal interstate access rate of about $0.07 per minute.

Subsequently, on March 17, 1998, the Commission approved an Order (Docket No. 94-123 reopened) that approved a stipulation between Bell Atlantic-Maine (now known as Verizon-Maine) and a group of intervenors, including the Commission's Advocacy Staff and the Public Advocate. This stipulation allowed Bell Atlantic-Maine to increase its basic local exchange rates by a total of $3.50 by May 30, 1999, with steps of $1.50 in 1998 and $2.00 in 1999. This was followed by another increase of $1.78 in 2000.

Maine continues to have the highest telephone penetration rate in the country—about 98 percent of Maine's households have telephone service.[31] In addition, lower intrastate toll rates have benefited some customer classes, especially those customers in rural areas with relatively small toll-free calling areas.

[31] MPUC Annual Report 2002, pp. 43.

Q. WHAT OTHER STATE EXPERIENCES DO YOU BELIEVE ARE RELEVANT?

A. In California in 1994, the Commission approved a rebalancing plan for GTE and Pacific Bell. GTE's residential rates immediately went from $9.75 to $17.25 while Pacific's residential rates went from $8.35 to $11.25.[32] Recently, as part of a rebalancing plan for Sprint's local telephone company in Ohio where intrastate access fees were lowered to mirror Federal charges, the Commission approved the creation of an end user charge of $4.10 for residential customers and $6.00 for single-line business.[33]

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

[32] *See*, Decision 94-09-065, *et. al.*, September 15, 1994.

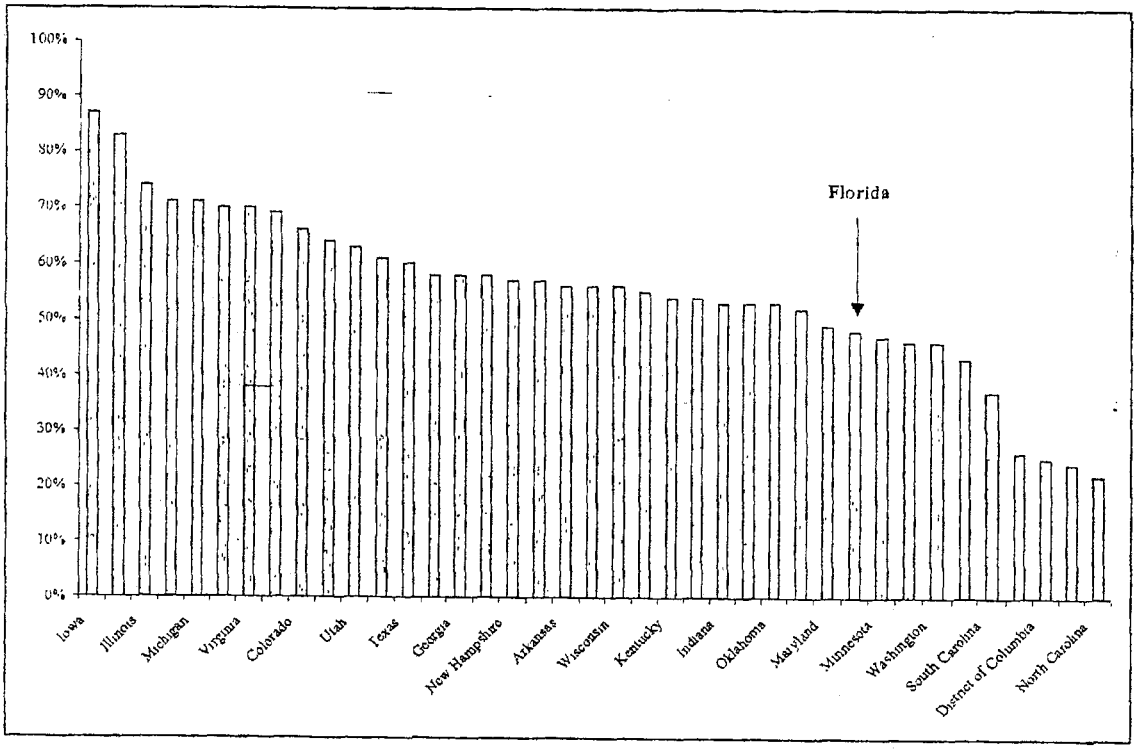
[33] *See*, The Public Utilities Commission of Ohio, Case No. 00-127-TP-COI and 01-1266-TP-UNC, June 28, 2001.

ATTACHMENT A

ATTACHMENT B

FIGURE 1 – PERCENT OF CLEC LINES SOLD TO RESIDENTIAL AND SMALL BUSINESS CUSTOMERS BY STATE, AS OF DECEMBER 31, 2002

SOURCE: FCC, *Local Telephone Competition: Status as of December 31, 2002*



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AMENDED DIRECT TESTIMONY OF DR. KENNETH GORDON

On behalf of Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-Florida Inc.

~~August 27~~September 30, 2003

AMENDED AMENDED DIRECT TESTIMONY OF DR. KENNETH GORDON~~DIRECT TESTIMONY OF DR. KENNETH GORDON~~

I. PURPOSE & SUMMARY OF CONCLUSIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Dr. Kenneth Gordon. My business address is One Main Street, Cambridge, Massachusetts 02142. My C.V. is provided as Attachment A.

Q. WHAT IS YOUR CURRENT POSITION?

A. I am a Special Consultant of National Economic Research Associates, Inc. ("NERA"). Previously, I was Senior Vice President at NERA.

Q. WILL YOU PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL QUALIFICATIONS?

A. I am an economist and former Chairman of the Maine Public Utilities Commission ("Maine Commission") and the Massachusetts Department of Public Utilities ("Mass. DPU"). The Mass. DPU is now known as the Massachusetts Department of Telecommunications and Energy. I have been an economist since 1965, and I have been directly involved with developing and establishing regulatory policy at the federal and state levels since 1980, when I became an industry economist at the Federal Communications Commission ("FCC").

I received my A.B. degree from Dartmouth College in 1960. I received my M.A. degree in 1963 and my Ph.D. degree in 1973, both in economics, from the University of Chicago. I have taught applied microeconomics, industrial organization, and regulation (as well as

other subjects) at Georgetown University, Northwestern University, University of Massachusetts at Amherst, and Smith College.

From 1980 to 1988, I was an industry economist at the FCC's Office of Plans and Policy, where I worked on a full range of regulatory issues, including telecommunications, cable, broadcast, and intellectual property rights. At the FCC, one of the major focuses of my work was activity aimed at introducing competition into communications markets.

Prior to joining NERA in November 1995, I chaired the Maine Commission (1988 to December 1992) and the Mass. DPU (January 1993 to October 1995). During my term as Chairman of the Mass. DPU, the DPU investigated and approved a price cap incentive regulation plan for NYNEX and also undertook a proceeding to examine interconnection and other issues related to the development of competition at all levels of telecommunications, including basic local service.

While a regulator, I was active in the National Association of Regulatory Utility Commissioners ("NARUC"), serving on its Communications and Executive Committees. In 1992, I served as President of NARUC. I was also Chairman of the BellCore Advisory Committee and the New England Governor's Conference Power Planning Committee.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-Florida Inc., ("the companies") are seeking to restructure their rates for intrastate network access services

("intrastate access") and basic local telecommunications services ("basic local") in accordance with recently passed legislation by the Florida Legislature.[1] The companies' revised plans—which must address the criteria established in the legislation—call for them to restructure their intrastate access and basic local rates in a revenue-neutral manner.

The companies have asked me to provide an economic and policy analysis of their revised rate plans and to testify on whether I believe those revised plans meet the criteria laid out in the legislation.

Q. WHAT ARE YOUR MAJOR CONCLUSIONS?

A. After reviewing the newly-enacted legislation, the evidence in this case—specifically the companies' revised plans and the cost evidence submitted by the companies' witnesses—and based on my general knowledge and expertise on telecommunications economic and regulatory matters, I conclude that the revised plans submitted by the companies meet the criteria contained in the legislation. Specifically, upon implementation, the revised plans will, *inter alia*:

- Reduce current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers; and
- Induce enhanced market entry.

The companies' revised plans significantly decrease support for basic local service by reducing prices for a service that has historically and purposely been an important

[1] *See* Section II below.

source—but by no means the only source—of support for basic local services, namely intrastate access. In order to achieve revenue neutrality, the companies' revised plans increase residential basic local prices towards cost-based levels, thus creating a more attractive market for potential entrants, ultimately for the benefit of residential consumers. Both theory and empirical evidence show that low residential basic local prices have hindered the development of residential competition. By better aligning residential basic local prices with cost, competitors will have increased incentives to target a broader mix of residential consumers, which is the intent of the Florida legislature.

In addition, I conclude that the revised plans will enhance economic welfare in Florida by increasing economic activity. As described in the respective testimonies of the companies' cost witnesses, the cost evidence submitted in this proceeding demonstrates that rates for residential basic local service diverge significantly from their underlying costs. A movement toward costs—and, therefore toward more rational economic pricing—will bring with it several economic benefits. These benefits include providing market participants—i.e., customers, the companies and potential and actual competitors—with more cost-based price signals, which will improve economic decision making and lead to more economically rational utilization of telecommunications services. Economic activity in Florida will increase as a result of the companies' revised plans because rebalancing generates substantial consumer benefits. Telephone consumers are better off as a result of moving prices more in line with costs, and will likely increase their purchases of those services whose price has come down. Perhaps of even greater significance, competitive telephone service providers will be seeing better price signals for local service, and will be able to invest without having to face the level of subsidized competition they have faced in the past. New investment by these providers should, at the

margin, increase.

The cost evidence presented by the companies demonstrates that basic local prices are receiving an economic subsidy from other services. The companies submitted forward-looking direct cost evidence to demonstrate that their residential basic local services are priced below the costs the companies incur to provide the services. Forward-looking direct cost is the basis for determining whether a service is receiving an economic subsidy. Moreover, consistent with this Commission's ruling, the companies' cost witnesses, when measuring the economic subsidy flowing to basic local services, correctly assign the entire cost of the loop to basic local.

I also conclude that the companies' revised plans will not jeopardize universal service in the state of Florida. The companies' residential basic local prices are substantially below the national average and Florida is not a poor state. The Florida Public Service Commission ("Commission") has the flexibility to approve the companies' revised plans and still have residential basic local prices remain affordable. The Florida Legislation requires that any price increase in basic local service not apply to Lifeline consumers and also increased the income eligibility for Lifeline consumers to 125 percent, thus protecting those customers most likely to be sensitive to potential price increases from a rebalancing plan. Importantly, the companies' revised rebalancing plans will lead to lower intrastate toll prices for all consumers. At the end of the day, the mix of services that consumers purchase as a result of the companies' revised plans will make consumers better off overall.

Finally, the fact that some customers may experience unwanted rate changes should not be

an argument for the status quo. Good policy requires weighing and balancing the costs and benefits of particular actions. While it may seem that maintaining current prices is the least objectionable thing to do from a policy perspective, there is an implicit but very real cost to continuing the status quo. The deployment of next generation, advanced networks depends crucially on providing all market participants the sound economic signals that will encourage efficient investment and innovation. Cost-based prices provide the incentives needed to bring to market the new services that customers demand. This cannot be accomplished by distorted prices.

Q. YOU HAVE NOTED IN YOUR MAJOR CONCLUSIONS THAT VERIZON FLORIDA INC., BELLSOUTH TELECOMMUNICATIONS, INC., AND SPRINT-FLORIDA INC. HAVE REVISED THEIR RESPECTIVE RATE REBALANCING PLANS FILED ON AUGUST 27, 2003 TO EXTEND THE TIME OVER WHICH INTRASTATE NETWORK ACCESS AND BASIC LOCAL TELECOMMUNICATIONS RATES WILL BE REFORMED. HAVE YOU REVIEWED THESE COMPANIES' REVISED PLANS?

A. Yes, I have.

Q. DO THESE REVISIONS AFFECT YOUR ANALYSIS OF THE COMPANIES' PLANS OR YOUR TESTIMONY?

A. No. With the exception of the minor changes — changing "plans" to "revised plans" — as well as this and the previous question and answer, my testimony remains unchanged from the testimony that I filed on August 27, 2003.

II. BACKGROUND

Q. PLEASE DESCRIBE THE BASIS FOR THE COMPANIES' REQUEST TO INCREASE BASIC EXCHANGE PRICES.

A. From an economic perspective, the fact that the companies' current residential basic local prices are not fully recovering their forward-looking economic cost is, by itself, a good enough reason to begin the process of moving them to more economically rational levels. Both theoretical and empirical research have shown that rebalancing rates and moving them toward levels more commensurate with their underlying costs results in significant benefits to telecommunications consumers and, by so doing, benefits the economy as well.[2] Rebalancing rates has also been demonstrated to have a positive effect on competitive entry into the local exchange market.[3]

The immediate catalyst for the companies' revised plans is the recent changes in Florida laws. I have been informed by counsel that the legal authority for the companies' request arises from recent changes in the statutory framework in Florida. During the 2003 regular legislative session, the Legislature passed Senate Bill 654, the Tele-Competition Innovation and Infrastructure Enhancement Act ("Tele-Competition Act"). The Tele-Competition Act implements several important policies, but for our purposes the relevant Section of the Tele-Competition Act is § 364.164 "Competitive market enhancement."

Q. WHAT ARE THE IMPORTANT PROVISIONS OF § 364.164?

A. § 364.164 permits local exchange telecommunications companies to petition the

[2] See Section IV below.

[3] See Section III.

Commission to reduce their intrastate access rates in a revenue-neutral manner. In reaching its decision, § 364.164 (1) states that the Commission shall consider whether granting the petitions will:

a. Remove current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers;

b. Induce enhanced market entry;

c. Require intrastate switched network access rate reductions to parity over a period of not less than 2 years or more than 4 years; and

d. Be revenue neutral as defined in subsection (7) within the revenue category defined in subsection (2).

Throughout my testimony, I will focus on whether the companies' revised plans are consistent with and meet the criteria provided in § 364.164 (1) (a) and (b). Other company witnesses discuss how the companies' revised plans would meet criteria (c) and (d).

Q. IN ORDER TO REDUCE INTRASTATE ACCESS RATES IN A REVENUE NEUTRAL MANNER, RATES FOR OTHER SERVICES NEED TO BE INCREASED. WHAT SERVICES DO YOU BELIEVE SHOULD BE INCREASED?

A. The first category of services that should be considered are those services whose current prices do not recover fully their underlying costs, such as residential basic local telecommunications services. Rates for these subsidized services should be increased in order to better reflect their real economic cost. This is confirmed in §364.164 (2), where the legislation calls for the creation of a revenue category mechanism consisting of basic

local telecommunications service revenues and intrastate switched network access revenues in order to achieve revenue neutrality. That is, the legislation states that in order to achieve revenue neutrality, if intrastate access prices are reduced, then basic local service prices need to be increased.

The current rate design for telephone services—where basic local services are priced below cost and other services, including intrastate access service, are priced in such a way so as to provide the support—while in the process of being reduced or eliminated in a number of states, continues to be encountered in state regulation of telephone services. However, as the Florida Legislature wisely recognized, whatever benefits such a rate design policy has arguably achieved in the past, such as helping the United States achieve universal telephone service—the continuation of such policies frustrates another important policy goal of Federal and state regulators, namely, the establishment of efficient competition to as broad a base of business and residential consumers as is economically feasible—not to mention the economic costs that arise from price-cost distortions, *per se*, as I discuss further below.

The current rate design policy as it pertains to residential basic local services, frustrates that policy goal and by enacting § 364.164, the Florida Legislature has provided the Commission with the direction it needs to make competition work better for all Florida consumers.

Q. ARE THE COMPANIES' REVISED PLANS CONSISTENT WITH § 364.164 (1) (a) and (b)?

A. Yes. The companies' revised plans are consistent with and meet the criterion of § 364.164(1)(a) and (b). Below in Section III, I fully describe why I believe that the

companies' revised plans are consistent with and meet those criteria.

Q. DR. GORDON, FROM A POLICY PERSPECTIVE DO YOU BELIEVE THAT IT IS APPROPRIATE TO ENGAGE IN THE TYPE OF REBALANCING THAT IS BEING CONTEMPLATED BY THE COMPANIES' PLANS?

A. Yes, I do. In this testimony, I describe fully why I believe that the companies' revised plans are consistent with the criteria of the Tele-Competition Act that the Commission shall consider and why the revised plans would likely result in increasing competitive activity in the state of Florida. Specifically, the revised plans will create a more attractive local exchange market for residential consumers and lead to enhanced market entry—two criteria that need to be considered by the Commission in addressing the companies' revised plans. By making the residential local exchange market more attractive, residential consumers will likely see more companies competing for their business, which will, in turn, result in more options for residential consumers, improved services and lower prices for their telecommunications services. From a policy perspective, it is appropriate to accomplish these tasks.

In addition, I describe below the history of rate design for basic local services in the United States and how the end result of these policies has been uneconomically low residential basic local prices; lower than what one would expect to find in undistorted competitive markets. Of course, states have differed in their implementation of these policies and, as a result, residential basic local service prices vary quite a bit from state to state. In Florida, residential basic local prices are quite low when compared to prices in other states. In Table I below, I list the flat-rate charges for each of the three companies' lowest and highest rate groups compared to the national average flat-rate charges. As can

be seen in the table, each of the companies' highest rate group is well below the national average of $14.55 per month.

Table I – Comparison of Verizon, BellSouth and Sprint's flat-rate residential basic local charges and National Average flat-rate charges

Company	Lowest Rate Group	Highest Rate Group	Unweighted Average	National Average (2002)
Verizon	$9.72	$12.06	$10.89	
BellSouth	$7. 57	$11.04	$9.31	
Sprint	$7.63	$11.48	$9.56	
National Average (2002)				$14.55

Source: Florida Senate Staff Analysis And Economic Impact Statement, p. 4. April 8, 2003; FCC *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service*, Table 1.1 July 2003, rates exclude Federal and State subscriber line charges, touch tone charge and taxes, 911 and other charges.

Q. HOW DOES THE FACT THAT FLORIDA HAS LOW RESIDENTIAL BASIC LOCAL TELECOMMUNICATIONS PRICES RELATE TO THIS PROCEEDING?

A. It relates to this proceeding in two important ways. First, the Legislature has correctly perceived that low residential basic local prices have led the residential local exchange market to be less attractive to competitors than would be the case with more economically rational residential basic local prices. In Section III below, I describe fully why, from an economic perspective, I believe the Legislature is absolutely correct on this point. Put

simply, holding all other factors constant, the lower the residential basic local price (when set governmentally without regard to whether the prices cover cost), the more unattractive those customers are to actual and potential competitors. Since Florida residential basic local prices are lower than those in many other states, and in fact lower than the national average, the problem facing potential new entrants as a result of these low rates is likely to be even more severe and pronounced in Florida than in other states. For this reason, it is even more important that Florida policymakers tackle this problem sooner rather than later.

Q. IS THERE ANY SUPPORT FOR YOUR ASSERTION THAT THE PROBLEM OF AN UNATTRACTIVE RESIDENTIAL MARKET MAY BE WORSE IN FLORIDA THAN IN OTHER STATES?

A. Yes, there is some support for my assertion. The FCC compiles data on local telephone competition. Its most recent report, released June 12, 2003 included a table that lists, for each state available, the percentage of lines provided to residential and small business customers by ILECs and CLECs.[4] The FCC provided data on 40 states and of those 40 states Florida ranked 30th in the percent of CLEC lines that were sold to residential and small business customers. This means that in 29 out of 40 states, CLECs' served proportionately greater residential customers than in Florida (see Figure 1 at the end of this testimony). Florida ranks below states such as Georgia (58%), Alabama (52%), Louisiana (61%) and Virginia (70%) to name a few, all of which have higher residential prices. This provides some evidence that low residential basic local prices are having a

[4] *See. Local Telephone Competition: Status as of December 31, 2002*, Table 11, Industry Analysis and Technology Division Wireline Competition Bureau, Federal Communications Commission.

negative impact on residential competition in Florida.

Q. YOU MENTIONED THAT THERE WAS A SECOND REASON WHY YOU BELIEVE THAT FLORIDA'S LOW RESIDENTIAL BASIC LOCAL PRICES, IN COMPARISON WITH OTHER STATES, ARE RELEVANT IN THIS PROCEEDING. WHAT IS THAT SECOND REASON?

A. The second reason has to do with affordability considerations and the flexibility this Commission has in rebalancing rates while still maintaining basic residential local rates that are quite affordable for most Floridia consumers. As mentioned above, the companies' prices for residential basic local services are generally well below the national average. However, Florida is not a poor state. According to data from the U.S. Bureau of Economic Analysis, Florida is on par with the national average in personal income per capita.[5] Specifically, as of 2001, the data show that personal income per capita in Florida was $29,047 compared to the national average of $30,413. Thus, the Commission has the flexibility to increase residential basic local prices, which are currently well below the national average, to more economically reasonable levels without making the services unaffordable to Florida consumers.

At the same time, Florida consumers will pay less for intrastate toll calls. The companies' rebalancing plan will lower the access charge component of the cost of producing intrastate toll calls. IXCs are required to pass these cost savings through to consumers in the form of lower prices. Thus, even with the increase in basic residential local rates, telecommunications will be just as affordable to Florida consumers as before, yet

[5] Bureau of Economic Analysis, Regional Economic Information System, Table SA1-3.

consumers will be better off because they will be consuming a different mix of telecommunications services that provides more value than they are currently receiving.

In addition, the Tele-Competition Act also requires that any increase in basic local service rates not apply to Lifeline customers and that the ILECs increase Lifeline participation to 125 percent of federal poverty income level.[6] These requirements further protect low-income consumers—and it is low-income consumers who would be most prone to disconnections in the face of price increases—thus providing the Commission with even more flexibility to approve the companies' rate rebalancing request with minimal concern that such a rate restructuring would negatively affect subscribership. I discuss this point, and other reasons why I believe the companies' revised plans will not negatively affect subscribership in Florida, in more detail in Section VI below.

Q. VERIZON, BELLSOUTH AND SPRINT ARE FILING THEIR REVISED PLANS AT THE SAME TIME. IS THERE ANY PUBLIC POLICY BENEFIT TO HAVING THE COMMISSION REVIEW THE COMPANIES' REVISED PLANS AT THE SAME TIME?

A. Yes. The benefits are at least threefold. First, to the extent that basic local rates are simultaneously adjusted closer to their costs throughout the territory of the three companies serving 98 percent of the ILEC customers, the better competition will be benefited and market entry enhanced. Certain providers who might be positioned to provide facilities–based basic local service (e.g. cable telephony, electric and wireless providers) will not necessarily configure their coverage areas based on the ILECs service

[6] § 364.10(3)(a).

territories. For them the potential staggered implementation of the rebalancing could be an obstacle to competitive entry. There are several areas within Florida where at least two of the three major ILECs provide service where it may be economical for a new entrant to provide service regardless of the ILEC boundary. For example, the Orlando/Central Florida (BellSouth/Sprint) area, Southwest Florida (between Sarasota and Ft. Myers (Verizon/Sprint)) area and the Pensacola – Ft. Walton – Destin -- Panama City (BellSouth/Sprint/BellSouth) area are three relatively compact geographic areas served in part by at least two of the three companies. Each of these areas might appropriately comprise the service territory of a single facilities-based entrant. When the price increases contained in the company plans are implemented and signal to these entrants that pricing distortions are being reduced on a broad basis, the competitors may be able to more efficiently execute their business plans.

Second, it is also important to avoid unnecessary marketplace distortions that could affect the purchase decisions of end-users. End-users normally make their purchase decisions based in large part on relative price differences among providers. If the rate-rebalancing is not implemented across all companies simultaneously, end-users will make these decisions based on incomplete and imperfect information as they see some providers' rates increasing while other providers' rates remain the same (at least temporarily). The risk will be that regulatory scheduling rather than the relative costs and benefits of various service offerings becomes the driving force behind consumers' decisions. For example, it is easy to imagine a situation involving two or more of the ILECs —where a CLEC might be able to offer service at a legitimate cost savings to all customers, but if re-balancing is not done simultaneously perhaps only one firm's customers would respond to the competitive offer, because the other firm's rate increase had yet to be implemented.

Coordinated rate rebalancing across all companies will ensure that potential competitors are not artificially disadvantaged when introducing new service offers by artificial boundaries, and that customers are not disadvantaged by incorrect and incomplete information driving their purchase decisions.

Third, the magnitude and timing of the access charge price reductions for the three companies would also benefit end users statewide. IXCs will be able to implement more meaningful price reductions if they can aggregate their access cost reductions into a single round of pricing changes.

Q. THE LEGISLATION PERMITS A COMPANY TO RESTRUCTURE ITS RATES OVER A MINIMUM OF TWO YEARS AND A MAXIMUM OF FOUR. EACH OF THE COMPANIES PLANS TO HAVE INTRASTATE ACCESS RATES REACH PARITY WITH INTERSTATE RATES OVER A TWO-YEAR PERIOD. DO YOU BELIEVE THIS IS A GOOD IDEA?

A. Yes I do, for several reasons. First, it is clearly permitted by the Tele-Competition Act. Second, it is a matter of economic principle that economic welfare is at its highest when prices are based on their underlying forward-looking costs and are not distorted. As I discuss in greater detail in Section III, prices that are distorted provide inferior signals for market participants and result in losses in consumer welfare because investment and purchase decisions by firms and consumers do not reflect the true costs that society incurs to provide the services. The companies' revised plans reduce these pricing distortions in the Florida telecommunications markets sooner rather than later and, by so doing, achieve economic efficiency gains sooner as well.

Third, a possible reason why one would prefer a more gradual rate restructuring time frame has to do with avoiding consumer "rate shock". As the words imply, rate shock implies that the increase in price proposed by the company is so high, that consumers would be obviously and adversely affected. However, based upon my personal experience as a former commissioner, as well as what I have observed in other states, I do not believe that the yearly increase in basic local prices will result in rate shock.

Q. PLEASE EXPLAIN WHY YOU BELIEVE THAT THE COMPANIES' PLANS WILL NOT RESULT IN RATE SHOCK.

A. The companies' revised plans will result in relatively minor increases in a customer's basic local price. In addition, as I stated earlier, these price increases will not even apply to current Lifeline consumers and new Lifeline consumers who have become eligible as a result of the Tele-Competition Act raising the income threshold to 125% of the poverty level.

In addition, with the reduction and elimination of the in-state connection fees, many customers might not even experience a significant change in their total bill. If there is an increase in the customers' bill, it will likely result in large part from increased stimulation from lower long distance charges that represent real gains to consumers because they are now able to make more calls at the new lower prices.

Finally, the companies' revised plans compare favorably with other states that have approved rate-rebalancing plans that approved much larger increases than the companies' request Importantly, these states' price adjustments did not jeopardize universal service. In Section VI, I also discuss the experience of some of the states that have already

implemented serious rate rebalancing plans, including Massachusetts where I presided as Chairman through one such adjustment.

III. THE COMPANIES' REVISED PLANS WILL RESULT IN A "MORE ATTRACTIVE COMPETITIVE LOCAL EXCHANGE MARKET FOR THE BENEFIT OF RESIDENTIAL CONSUMERS" AND WILL INDUCE "ENHANCED MARKET ENTRY"

Q. HOW DO YOU JUDGE WHETHER THE COMPANIES' REVISED PLANS MEET THE CRITERIA OF § 364.164 (1) (a) AND (b)?

A. § 364.164 (1) (a) states that the companies' plans should remove the current support for basic local telecommunications services that is impeding the creation of a more attractive competitive local exchange market for the benefit of residential consumers. In order for the companies' revised plans to meet the first criterion, they must show that the revised plans remove—or at a minimum reduce—support for basic local telecommunications. By so doing, they create a more "attractive" competitive local exchange market, because the price to be competed against by new entrants is raised to more closely reflect the real economic costs of doing business. The second criterion for the Commission's consideration is § 364.164 (1) (b) which simply states that the plans should induce enhanced market entry and no distinction is made between residential or business consumers.[7]

[7] There are other criteria in § 364.164 (1) that I do not discuss but that are the subject of the companies' respective witnesses.

Therefore, in evaluating whether the companies' revised plans meet the criteria in these sections, I must ascertain whether the revised plans: (1) remove current support for basic local telecommunications services, and (2) will likely result in a more attractive competitive environment that would benefit residential consumers and induce enhanced market entry.

Q. DO THE COMPANIES' REVISED PLANS REMOVE CURRENT SUPPORT FOR BASIC LOCAL TELECOMMUNICATIONS SERVICES?

A. Yes, the companies' revised plans significantly decrease current support for basic local telecommunications services. The revised plans do this by reducing the prices of a service that has historically been set by regulators to provide an important source—but by no means the only source—of support for basic local services, namely, intrastate switched network access.

Q. WHY DO YOU BELIEVE THAT INTRASTATE SWITCHED NETWORK ACCESS CURRENTLY SUPPORTS BASIC LOCAL TELECOMMUNICATIONS SERVICES?

A. There are two reasons. The first is the historical rate design policy prevalent in telecommunications regulation in Florida and throughout the United States. As I mentioned earlier, historically, telecommunications rate design was premised on the policy goal—at times stated and sometimes left implicit—of keeping the price of basic local telecommunications low or as low as possible. This policy began early on in telecommunications regulation and was accomplished through the rate design mechanisms that were part and parcel of traditional regulation. Traditional regulation required two broad steps. The first was to determine a revenue requirement that was sufficient to meet

the prudently incurred operating expenses and a reasonable return on prudently invested capital. The second broad step was the rate design process, which determined the price of each regulated service to ensure that the regulated company had the opportunity to recover its revenue requirement from its regulated service.[8] Normally, a proper rate design process would require that the price of any service recover at least its underlying cost and, in addition, contribute to the firm's shared and common cost in some manner. At times that manner was consistent with economic efficiency goals—as when demand considerations were taken into account—and at other times it was more reflective of other policy considerations—as when an equal percentage markup was applied across the board to the different services.

For basic local services, however, in most instances the price was set on a residual basis without taking into consideration the underlying cost of providing basic local telecommunications. That is, the goal of residual pricing was to keep basic local prices low, or as low as possible, and to recover more revenue from other telecommunications services, constrained by what consumers were willing to pay for the non-basic telecommunications services and by—as competition began to become more prevalent in telecommunications markets—the threat of customers bypassing the public switched telecommunications network.

Prior to divestiture of AT&T in 1984, toll prices provided the bulk of support for basic local telecommunications services. As technological advances lowered the cost of

[8] I say opportunity to recover its revenue requirement because the regulatory process does not generally guarantee a regulated company a certain return, it only provides the regulated company the opportunity to earn a certain return.

providing toll services, toll prices did not decrease commensurately and were used as a means to support basic local telecommunications services—i.e., to keep the prices of basic local lower than would otherwise be the case. After divestiture of AT&T, interstate and intrastate switched network access services were substituted as a means of supporting basic local telecommunications services.

Notably, even after the substitution of price cap regulation for traditional regulation, the cross subsidies that were present under traditional regulation have been maintained.

The notion that intrastate switched network access services have been used as a source of support for basic local telecommunications is confirmed in the Florida *Senate Staff Analysis and Economic Impact Statement on the Tele-Competition Act*, where it states:

> According to the commission, intrastate network access service rates were set well above the incremental cost of providing the service in order to keep rates for basic local telecommunications service as low as possible and to encourage subscribership.[9]

The second reason why I believe that intrastate access services currently support basic local service is cost considerations. As described in the testimonies of their witnesses, the companies have established that the price of residential basic local telecommunications services is below forward-looking direct cost estimates. From an economic perspective, whenever the revenues from a service are insufficient to recover its forward-looking direct costs, that service is said to be in receipt of an economic subsidy. The source of the

[9] *See* Senate Staff Analysis and Economic Impact Statement on CS/SB 654, April 8, 2003.

subsidy—including that for residential basic local services—comes from all those services that are priced above their respective forward-looking direct costs. As a whole, these services contribute to the support of residential basic local. Because intrastate access services are priced significantly above their forward-looking direct costs, this means that intrastate switched network access services are supporting basic local service.

Q. DOES THIS IMPLY THAT THERE MAY BE OTHER SERVICES, BESIDE INTRASTATE ACCESS SERVICES, THAT MAY ALSO BE SUPPORTING BASIC LOCAL TELECOMMUNICATIONS SERVICES?

A. Yes, that is correct. In general, for multi-product firms, where there are significant amounts of shared and common costs, firms must, in the aggregate, price their services above forward-looking direct costs in order to earn sufficient revenues to remain viable. When one service is priced below its forward-looking direct costs, as is the case for residential basic local telecommunications services, other services that are priced above forward-looking direct costs are supporting the service that is priced below its own forward-looking direct costs.

The Florida Legislature, however, has specifically determined that it is the support provided by intrastate switched network access that is to be reduced. The Tele-Competition Act calls for rebalancing to take the form of lowering intrastate access rates to parity—over a 2 to 4 year period—with interstate switched network access rates and to simultaneously increase basic local telecommunications services by an amount sufficient to make up the revenue over the same time period. Under this approach, there is still no guarantee that residential basic local services recover at least their forward-looking direct costs once intrastate access rates are set to parity with interstate switched access rates. In

fact, according to the companies' evidence, residential rates will still be below forward-looking direct costs even when intrastate switched network access rates reach parity with the interstate rates.

Therefore, while the companies' revised plans are consistent with the criteria to be considered by the Commission, the plans do not result in the complete rebalancing of rates. Thus, there will still likely be some (lesser) distortions in prices even after the implementation of the plans.

Q. AS AN ECONOMIST, DO YOU BELIEVE THAT REBALANCING IS COMPLETED ONCE BASIC RESIDENTIAL PRICES ARE SET AT FORWARD-LOOKING DIRECT COSTS?

A. While having basic local services recover at least their underlying forward-looking direct costs is a good first step, it would not necessarily result in economically efficient prices. As I discuss in greater detail below in Section IV, economically efficient prices require that a multi-product firm's shared and common costs be recovered through markups on each service or product above forward-looking direct costs in a manner that least distorts economic efficiency. Therefore, to have economically efficient basic local prices would likely require that basic local services be priced above forward-looking direct costs. However, as markets become more competitive, markups will be limited by the need to be competitive with other firms in the market.

Q. HAVING ESTABLISHED THAT THE REVISED PLANS REMOVE CURRENT SUPPORT FOR BASIC LOCAL, § 364.164 (1) (a) PROVIDES THAT, AS A RESULT OF THE REMOVAL, THEY WILL RESULT IN A MORE

ATTRACTIVE COMPETITIVE LOCAL EXCHANGE MARKET FOR THE BENEFIT OF RESIDENTIAL CONSUMERS. WILL THE COMPANIES' REVISED PLANS MEET THIS CRITERION?

A. Yes, the companies' revised plans will create a more attractive competitive local exchange market for the benefit of residential consumers. Economic theory and empirical research both indicate that this will likely be the case. I discuss these two factors below.

Q. PLEASE DISCUSS WHY YOU BELIEVE THAT ECONOMIC THEORY SUGGESTS THAT THE COMPANIES' REVISED PLANS WILL LIKELY RESULT IN A MORE ATTRACTIVE COMPETITIVE LOCAL EXCHANGE MARKET FOR THE BENEFIT OF RESIDENTIAL CONSUMERS?

A. One of the key components of the companies' revised plans is that intrastate access revenues will be decreased in a revenue-neutral manner by increasing the price of (and revenue from) basic local telecommunications services for residential consumers. The cost information provided by the companies in this proceeding indicates that residential basic local telecommunications prices are currently below forward-looking direct costs. Increasing the price of a service, especially a service that is below forward-looking direct costs, will make for a more attractive market for actual and potential competitors. Competitors will not rationally try to compete against heavily subsidized prices.

Q. WOULD YOU PLEASE EXPLAIN WHY YOU BELIEVE THIS TO BE THE CASE?

A. In a market economy, prices are the essential tool that send signals to market participants that, in turn, determine market behavior and outcomes. For example, as prices increase or decrease, consumers alter their consumption decision because the value consumers place

on goods and services changes in relation to price. Producers alter their production, investment and research and development decisions as well, because as prices increase or decrease, profits change along with them. It is the search for profits that drives firms to enter or expand into new markets. As prices change, potential entrants into the market will be affected as well. Lower prices may act to keep new firms from entering the market and higher prices more reflective of cost will tend to attract new firms into the market.

Like any other firm, the investment decision of a telecommunications competitor is based on the present value of the cash flows that the investment project is likely to generate over the useful economic life of the project. Holding all other factors constant, when the price of a service increases, a cash flow analysis would show that the investment project becomes more profitable (or less of a loss) and thus more attractive. In the case before us, an increase in the price of basic local telecommunications service would increase the revenues from residential basic local services in a cash flow analysis, thus increasing the attractiveness of providing those residential services. As a result of rate rebalancing, where the companies plan to raise residential basic local prices, the residential local exchange market will look more attractive to all actual and potential telecommunications providers of residential services.

Q. WILL THE COMPANIES' REVISED PLANS ALSO PROVIDE INCREASED INCENTIVES FOR OTHER COMPETING TELEPHONY TECHNOLOGIES?

A. Yes. An important reason for opening local telecommunications markets to competition is the belief that technological change is proceeding so rapidly that competitive markets will do a much better job than monopoly of discovering which technologies can or cannot

succeed in the long run. For example, access to customers for their telecommunications needs comes in the form of fixed-wireline access, wireless access, cable telephony, Internet, and potentially satellite and even access via electric utilities. Of course, not all of these technologies will necessarily survive in the long run and competition will likely lead to a mix of technologies surviving and providing the lowest possible cost for each consumer's telecommunications needs.

However, in order for the lowest-cost mix of technologies to remain in the market, prices and the signals they send must not be distorted and must reflect the underlying cost of providing service. The companies' revised plans move positively in this direction and encourage new entrants—regardless of the chosen technology—to enter or expand in the marketplace because even competitors using lower-cost (or more attractive) technologies may not be able to compete against a subsidized ILEC price that does not fully reflect its own costs. This would be a loss for consumers and the Florida economy.

Q. IS THERE EVIDENCE THAT OTHER FORMS OF ACCESS ARE COMPETING WITH FIXED-WIRELINE ACCESS?

A. Yes. The Florida Commission has recognized the actual and potential substitution occurring between fixed-wireline and other forms of access, including wireless and emerging IP-telephony providers. As the Commission states:

> Regarding the substitution of technology and services, as they are being found to be close substitutes to traditional wireline services, both wireless and

emerging broadband IP-telephony providers must be included in the analysis.[10]

In the same report, the Florida Commission cites nation-wide data indicating that about 5% of U.S. wireless subscribers have disconnected wireline service and conclude that substituting wireless for wireline services appears to be a national trend.[11] Moreover, as the same report concludes, Florida may be especially susceptible to this phenomenon because of the large population in Florida that also has residences in other states. For many of these consumers, "it makes little sense to continue paying for telephone service that sits idle much of the year when wireless enables them to stay connected wherever they are."[12]

The Florida Commission has also concluded that cable providers are competing directly with fixed-wireline providers. The Commission cites to national data that shows that by second quarter of 2002, there were 2.5 million cable telephony subscribers and that cable companies expect to see one-third of their digital cable households take cable telephony service by 2005.[13]

There is evidence that the Tele-Competition Act is already having a positive impact on competitors' incentive to enter and expand in the Florida market. On July 18, 2003, Knology, a provider of broadband and voice telephony services, announced it has entered

[10] *See*, Florida Public Service Commission, *Telecommunications Market in Florida Annual Report on Competition As of June 30, 2002*, December 2002, p. 6.

[11] *Ibid*, at 7.

[12] *Ibid*, at 9.

[13] *Ibid*, at 10

into a definitive agreement to purchase certain assets from Verizon Media Ventures, Inc.[14] Knology offers local and long distance telephone service and its purchase of Verizon's Americast cable system will permit it to compete directly with Verizon. In its press release announcing its decision, Knology stated:

> In commenting on this transaction, Knology noted that the Tele-Competition Act recently enacted in Florida positively influenced its decision to expand operations in the state. This Act, as written by the Florida Legislature and supported by Governor Bush, laid the foundation for companies like Knology to enter the Florida market, and offer competitive services and products to consumers.

Q. IS THERE EMPIRICAL EVIDENCE THAT SUPPORTS YOUR VIEW THAT RATE REBALANCING WILL LIKELY MAKE THE RESIDENTIAL LOCAL EXCHANGE MARKET MORE ATTRACTIVE?

A. Yes, there is empirical evidence. Two of my colleagues at NERA investigated empirically whether low residential basic local rates were having any impact on competition in the states and, specifically, whether low rates were hindering the development of residential competition.[15] In that paper, the authors hypothesized that inefficient local exchange prices are having an impact on competition and that, specifically, low residential prices are inhibiting competition for residential customers. To test their hypotheses, the authors compared how local competition varied across the different states depending on how

[14] *See*, Knology Press Release July 18, 2003, *Knology Announces Agreement to Purchase Broadband Asset*.

[15] *See*, Agustin J. Ros and Karl McDermott, "Are Residential Local Exchange Prices Too Low? Drivers to Competition in the Local Exchange Market and the Impact of Inefficient Prices," in Michael Crew, *Expanding Competition in Regulated Industries*, Kluwer Academic Publishers, 2000.

"unbalanced" were local exchange prices. Specifically, the authors estimated several cross-section econometric models of facilities-based competition, controlling for things such as cost and demand considerations in the different states. The authors also included several policy variables, including one that measured the degree to which residential local exchange prices were "distorted" in each state. The authors summarized their results, as they pertained to residential competition, as follows:

> Using OLS and GLS estimates we found a significant and positive association between states that have more "balanced" tariffs and residential competition. For two measures of residential competition used in our data, we found that "rebalancing" tariffs by 10% leads to approximately a 9% and 13% increase, respectively, in residential competition.[16]

In addition, James Eisner (an FCC staff member) and Professor Dale E. Lehman performed a somewhat similar study.[17] Eisner and Lehman state in their conclusion:

> ...in some specifications, there appears to be less competitive entry (principally facilities-based) where residential rates are lower. These findings are generally statistically significant at the 90% level.[18]

Finally, another empirical study examined rate rebalancing in Latin America and found that rate rebalancing in some Latin American countries has led to increases in the supply

[16] *Ibid.*, at 167.

[17] *See*, James Eisner and Dale E. Lehman, *Regulatory Behavior and Competitive Entry*, presented at the 14th Annual Western Conference Center for Research in Regulated Industries, June 28, 2001. The authors' main motivation appears to have been ascertaining how regulatory behavior—as it pertains to unbundled loop prices and 271 entry—affects competitive entry. Nevertheless, they control for local exchange prices as well.

[18] *Ibid.*, p. 25.

of main telephone lines by providing better incentives to market participants.[19]

In summary, both economic theory and the empirical literature suggest that the companies' revised plans—by setting residential rates at more economically efficient levels—would likely make the residential local exchange marketplace more attractive to actual and potential competitors.

Q. BUT ISN'T IT THE CASE THAT CLECS ALREADY HAVE ENOUGH INCENTIVES TO SERVE LUCRATIVE RESIDENTIAL CUSTOMERS?

A. Yes, it is probably the case that CLECs have enough incentive to serve a subset of residential customers, namely those customers that are very profitable either because the cost of serving them is especially low or because their volumes are unusually high. But the promise of the Tele-Competition Act is to ensure that competition for residential customers is as broad and diffuse as is economically feasible, and by better aligning the prices of residential basic local services with their underlying costs, a broader base of residential customers will obtain the benefits of competition.

Q. § 364.164 (1) (b) PROVIDES THAT THE COMPANIES' PLANS CONSIDER THE EFFECT ON ENHANCED MARKET ENTRY. WILL THE COMPANIES' REVISED PLANS MEET THIS PROVISION?

A. Yes, the companies' revised plans will induce enhanced market entry. Above, I have discussed how the revised plans would likely create a more attractive competitive local

[19] *See*, Agustin J. Ros and Aniruddha Banerjee, "Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America," *Telecommunications Policy*. 24 (2000) 233-252.

exchange market for the benefit of residential consumers. This is an example of how the revised plans will induce enhanced market entry.

In general, the companies' revised plans will provide for improved entry signals into the local exchange market by diminishing distorted price signals that may encourage uneconomic entry into the overpriced markets. Prices that are free of distortions will lead to several economically-efficient outcomes known as allocative, technical and dynamic efficiencies. First, efficient pricing assumes that the marginal cost that society incurs to produce goods and services reflects the value that consumers place on the good or service consumed, (allocative efficiency). Second, optimal signals are provided to firms in the industry (e.g., whether to increase production or exit the industry) and to potential entrants contemplating entering the market. This ensures that it is the lowest cost firms that stay in the market and provide goods and services. In this way the use of society's scarce resources is minimized (technical efficiency). Third, prices that adequately cover costs ensure that appropriate incentives exist for improvement in technology, increased research and development and higher quality goods and services (dynamic efficiency).

Q. UNDER WHAT CONDITIONS CAN IT BE SAID THAT PRICES ARE FREE OF DISTORTION, AND ARE THE COMPANIES' CURRENT PRICES FOR BASIC LOCAL SERVICES FREE OF DISTORTIONS?

A. Prices are free of distortion when: (1) they recover at least the forward-looking incremental cost of production and (2) for multi-product firms, markups above incremental costs take into account demand characteristics in the market, subject, of course, to the need for the firm to meet competition. As described in the companies' cost testimonies, the companies' prices for basic local residential services are not recovering

the forward-looking direct cost of production. As such, prices for these services do not meet the economic criterion that prices should at a minimum recover the forward-looking direct cost of production.

By adopting the companies' revised plans, however, the Commission will be reducing significantly the distortions in the price of intrastate access and residential basic local services and achieving the economically efficient outcomes described above.

IV. OTHER ECONOMIC BENEFITS FROM THE COMPANIES' REVISED PLANS

Q. ARE THERE OTHER ECONOMIC BENEFITS THAT WILL LIKELY ARISE FROM THE COMPANIES' REVISED REBALANCING PROPOSAL?

A. Yes, there are other economic benefits that will likely arise from the companies' revised rebalancing proposals. Both economic theory and empirical research suggest that rate rebalancing will likely increase economic activity in Florida as increased competition brings benefits to Florida consumers of telecommunications services.

Q. WOULD YOU PLEASE DESCRIBE WHY ECONOMIC THEORY SUGGESTS THAT RATE REBALANCING WILL INCREASE ECONOMIC ACTIVITY IN FLORIDA?

A. Rate rebalancing consists of increasing the prices of services that are priced below forward-looking direct costs and reducing the prices of services that are priced significantly above forward-looking direct costs. As mentioned earlier in my testimony, the history of telecommunications rate design is such that residential basic local prices

were set low and usage services (such as toll and intrastate access services) were set high.

However, economic theory teaches that economic efficiency (and overall consumer welfare) is at its highest level when prices of goods and services in an economy are set at forward-looking direct cost. Of course, in industries where there are significant fixed costs—that give rise to economies of scale—and in multi-product firms where there are significant amounts of shared and common costs, pricing services at forward-looking direct cost does not permit the firm to earn sufficient revenues to recover all its costs. Under such conditions, markups above forward-looking direct costs are required. Specifically, as competition develops, those services that are more price elastic will likely receive a proportionately lower markup above cost than those services that are more price inelastic.

Q. PLEASE DESCRIBE HOW REBALANCING RESULTS IN INCREASED ECONOMIC ACTIVITY IN FLORIDA?

A. The companies' revised plans will lower intrastate access prices, which will in turn result in lower intrastate toll prices, as required by the Tele-Competition Act. As a result of the reduction in intrastate toll prices, Floridia consumers will use more toll services. This will create value for them that they are not now receiving. This, in turn, will reflect an increase in economic activity in Florida. In addition, and of more direct importance to this proceeding, more cost reflective prices for local service will send signals to competitors that will more efficiently guide their investment decisions, and in all likelihood, increase their investment beyond what it is in the face of today's artificially low prices. Thus, rebalancing will generate significant gains in economic activity in Florida. It is important to stress the point that demand for access to the network by consumers depends not only

on the price of network access but it also depends on the value that consumers obtain (consumers' surplus) from using the network. While higher network access prices may, in theory, decrease the quantity of access consumed, the concomitant decrease in long distance price will increase the quantity of access consumed. Empirical evidence suggests that, in net, we may well find that rebalancing leads to more consumers subscribing to the network.[20]

Q. IS THERE EMPIRICAL EVIDENCE THAT QUANTIFIES THE AMOUNT OF ECONOMIC BENEFIT THAT A REBALANCING PLAN CAN GENERATE?

A. Yes, there is empirical support. There have been several studies that have examined the welfare gains arising from rate rebalancing. One of the first studies found that, for the U.S. as a whole, the loss from overpricing long distance service to business and residential consumers in 1983 was around $10 billion, a finding that was confirmed in subsequent research.[21] More recent research confirms the significant gains in economic welfare that can be achieved from more economically rational prices. For example, a 2000 study by Robert Crandall and Leonard Waverman (a NERA colleague) found the total cost of the current rate design—i.e., lower basic local prices and higher long distance prices—to be anywhere between $2.5 to $7.0 billion per year, depending on the assumptions made.[22]

[20] *See*, Hausman, J., T. Tardiff, and A. Belinfante, "The Effects of the Breakup of AT&T on Telephone Penetration in the United States," *The American Economic Review*, Vol. 83, May 1993, pp. 178-184.

[21] *See*, John T. Wenders and Bruce L. Egan, "The Implications of Economic Efficiency for U.S. Telecommunications Policy." *Telecommunications Policy* 10 (1986): 33-40 and Lewis Perl, "Social Welfare and Distributional Consequences of Cost-Based Telephone Pricing." Paper presented at the Thirteenth Annual Telecommunications Policy Research Conference, Airlie, Va. April 23, 1985.

[22] *See*, Robert Crandall and Leonard Waverman, *Who Pays for Universal Service?: When Telephone Subsidies Become Transparent*, Brookings Institute, (2000), p. 119.

V. COST ISSUES

Q. WHAT IS THE CORRECT COST CONCEPT TO USE FOR DETERMINING WHETHER A SERVICE IS RECEIVING AN ECONOMIC SUBSIDY?

A. From an economic perspective, use of forward-looking direct costs (economic costs as opposed to embedded or historical costs) is the proper basis for determining whether a specific service is in receipt of an economic subsidy. The embedded cost or historical cost of an activity is a record of the costs a firm attributes to the pursuit of its activity in a given (past) accounting period. That cost reflects what the firm actually paid for capital equipment,[23] its actual costs of operating and maintaining that equipment, and other costs incurred in operating the enterprise. By contrast, the economic cost of an activity is the actual forward-looking cost of accomplishing that activity in an efficient manner. In contrast to embedded costs, forward-looking costs are those associated with present and future uses of the firm's (or society's) resources. Only these forward-looking costs are relevant for making present and future production and investment decisions, for placing resources in alternative uses, and for setting efficient prices for the services to be provided presently or in the future.

According to the evidence presented by the companies, their residential basic local rates are below forward-looking direct costs and I conclude, therefore, that those rates are in receipt of an economic subsidy.

[23] Embedded costs also include the annual depreciation expenses associated with the stock of equipment that (1) was purchased in the current and previous years and (2) is still in use.

Q. THE COMPANIES' REVISED PLANS ARE BASED UPON THE FACT THAT THE LOCAL LOOP IS NOT A SHARED OR COMMON COST AND THAT ITS COST IS CAUSED SIMPLY BY PROVIDING CUSTOMERS ACCESS TO THE TELEPHONE SYSTEM AND CANNOT APPROPRIATELY BE SPREAD AMONG THE REMAINING TELEPHONE SERVICES. DOES THE FLORIDA COMMISSION AGREE WITH THIS APPROACH REGARDING THE LOCAL LOOP?

A. Yes, it does. In a report to the Florida Legislature in 1999, the Commission explicitly rejected the notion that the cost of the loop should be recovered from non basic local telecommunications service.[24] In that report, the Commission stated:

> Is the cost of local loop facilities properly attributable to the provision of basic local telecommunications service? By definition, yes. Section 364.02(2), Florida Statutes, defines "basic local telecommunications service as"
>
> > Voice grade, flat-rate residential and flat-rate single-line business local exchange services which provide dial tone, local usage necessary to place unlimited calls within a local exchange area, dual tone multi-frequency dialing, and access to the following emergency services such as "911," all locally available interexchange companies, directory assistance, operator services, relay services, and an alphabetical directory listing.

[24] *See*, "Report of the Florida Public Service Commission on the Relationship Among the Costs and Charges Associated with Providing Basic Local Service, Intrastate Access, and Other Services Provided by Local Exchange Companies, in Compliance with Chapter 98-277, Section 2(1), Laws of Florida," Florida Public Service Commission Tallahassee, Florida February 15, 1999.

Given such an identification of the cost object to be studied, the principle of cost causation leads one to the unavoidable conclusion that the decision to have local service leads to the incurrence of loop costs.[25]

VI. UNIVERSAL SERVICE WOULD NOT BE PUT AT RISK AS A RESULT OF THE COMPANIES' REVISED PLANS

Q. SHOULD THE COMMISSION BE CONCERNED ABOUT UNIVERSAL SERVICE?

A. While it is true that, in theory, as the price of basic local service increases, some consumers may decide the new price is above the value he or she places on the service—and may, as a result, decide to do without telephone service—I do not believe that, in practice, this would occur, or occur to such an extent as to jeopardize universal service in Florida. There are several reasons why I believe this is the case.

First, although low-income subscribers may be more sensitive to price increases than are middle and higher income users, the Tele-Competition Act does two things to help low income consumers. It provides that, in the event of an increase in residential basic local service prices, low-income consumers who are Lifeline customers will be exempted from the price increase; and, it expands the number of Lifeline-eligible customers to 125 percent of the federal poverty level. These steps should go far to address any problems of affordability.

[25] *Ibid*, at 51.

Second, the price elasticity of demand for access to the network is quite low, meaning that the vast majority of consumers will continue to subscribe. Specifically, the price elasticity of demand measures the percentage impact on demand given a percentage change in price. Previous research has demonstrated that customers generally do not disconnect their phone service when prices for basic local service increase.[26]

Third, and very importantly, in addition to its own price, the demand for residential basic local service is determined by the amount of value consumers obtain from using the services produced by the network, i.e., local calling, intraLATA toll, interLATA toll, vertical services and newer services such as broadband Internet access. As prices for these services decrease over time due to competitive pressure and technological innovation, the value that consumers place on having access to the network increases and so, therefore, does their demand to stay on the network.[27] The companies' revised plans call for rate increases phased in over a two year period and to the extent that prices for complementary goods decrease so will consumers' desire to remain on the network increase. This helps reduce, or may even offset, the negative effect of the price increase.

Finally, as discussed above, less distorted prices should provide better incentives for competitors to compete for residential consumers. Competition brings with it improved quality, different selection of goods and services bundled together in a way that customers find attractive, and lower prices. These factors provide additional reasons why during the

[26] *See,* Lester D. Taylor, (1994), *op. cit.*

[27] Hausman, J., T. Tardiff, and A. Belinfante, "The Effects of the Breakup of AT&T on Telephone Penetration in the United States," *The American Economic Review*, Vol. 83, May 1993, pp. 178-184.

phase-in period, customers will likely place increased value on subscribing to the network, thus mitigating the effects of any local rate increase.

To the extent the Florida Commission is concerned with the few remaining users who may decide to drop off the network it is also important to be aware that alternatives to the fixed network are growing and at least some customers may be turning to alternative means of meeting their communications needs. For example, the extraordinary growth of wireless service, driven by lower wireless prices and pricing plans that include a "bucket" of minutes provides customers with more meaningful opportunities to use wireless service as a substitute to wireline service.

Q. SHOULD THE COMMISSION BE CONCERNED IF CUSTOMERS DROP OFF THE FIXED NETWORK BUT INSTEAD RELY PRIMARILY ON OTHER FORMS OF ACCESS?

A. No. An important goal for policymakers has been to ensure that as many consumers as possible have access to the public switched telecommunications network, irrespective of how that access is obtained. When a customer drops off the fixed-line network and accesses the public network via wireless access, this is simply a substitution effect caused by the customer choosing between fixed and wireless access. This is not a universal service concern for policymakers.

Q. DR. GORDON, HAVE OTHER STATES IMPLEMENTED RATE REBALANCING?

A. Yes, there are other states that have implemented rate rebalancing including California, Illinois, Ohio, and in Massachusetts where I served as Chairman. Even in Maine, where

by statute basic residential services are to be set as low as possible and where I also served as Chairman, they have recently approved a rebalancing plan.

Q. WOULD YOU PLEASE DESCRIBE THE RATE REBALANCING PROCESS IN MASSACHUSETTS?

A. The process for changing prices in Massachusetts began before I became Chairman of the Massachusetts Commission and continued during my tenure. In Massachusetts, residential fixed monthly charges were increased significantly, with offsetting decreases in business, toll, and carrier access prices. The Massachusetts Commission early on after divestiture recognized the problems that historic pricing policies were creating, as other (especially institutional) barriers to market entry were being eliminated, and thus ordered a change in price structure:

> "properly defined incremental costs should be used as the primary basis for pricing all services, including local exchange service ...to the extent that current rates do not reflect an appropriate allocation of costs, the [MDPU] will, consistent with the need to avoid major discontinuities in rate levels, move toward that goal." IntraLATA Competition, D.P.U. 1731 (1985), p. 36-38.

> "Traditionally, the pricing of telephone service was based on a method whereby residential monthly exchange rates were priced below cost in order to promote universal service; and long-distance, toll, and business rates were priced above cost in order to subsidize residential exchange rates. While this system succeeded in serving a social purpose, it was a pricing scheme not conducive to the development of a fully-competitive market, in which the benefits associated with competition would be realized by all customers."

NET, D.P.U. 93-125 (1994), pp. 10-11.

In Massachusetts, moving prices more in line with incremental costs required a significant shift in revenue recovery from usage-based prices, such as intraLATA toll and intrastate carrier access, to fixed monthly prices for all classes of customers. In addition, because the MDPU found that there were no significant cost differences in serving different classes of customers, the price-rebalancing process also entailed a further shift in revenue recovery from business customers to residential customers. Of course, the necessary changes were not made overnight. The MDPU established a series of annual, revenue-neutral, price-rebalancing investigations in order to achieve its goal over time.

When the Massachusetts price-rebalancing process ended in January of 1994 (with the adoption of a price cap plan), the price for basic residential dial-tone service (1MR) had risen from about $3.00 per month in 1990 to $9.91 per month in 1994 (net of the SLC).[28] Comparable increases also occurred for residential flat-rate service (1FR), which was the most popular service in Massachusetts, at that time. Flat rate residential prices had ranged from $9.95 in rural areas to $12.38 in urban areas. The rebalancing process moved flat rate residential prices to $16.85 state wide. During this period, the average increase for residential consumers was $2.18 per year over four years and, according to the DTE, record evidence shows virtually no impact on residential telephone subscriber penetration.[29] Because the price-rebalancings were revenue-neutral, these increases were

[28] I was Chairman of the MDPU for the last of these annual investigations.

[29] *See*, "Re Verizon New England, Inc. dba Verizon Massachusetts D.T.E. 01-31-Phase II." *Public Utilities Reports – 223 PUR4th*, p. 397.

completely offset by decreases in prices for other services, notably residential and business intraLATA toll and carrier switched access.

Massachusetts was one of the first states to open toll and local markets to competitive entry, and the price rebalancing helped to lessen opportunities for uneconomic bypass and thus promoted the development of an efficient competitive process.

More recently, Massachusetts has continued to better align prices with their underlying costs by reducing switched access and increasing residential dial-tone rates. Specifically, the DTE authorized the ILEC to implement a one-time increase of $2.44 to its residential dial-tone line charge. In commenting on its decision, the DTE stated:

> Moreover, the department finds that with the $2.44 increase in the dial-tone line charge, competitive local exchange carriers (CLECs) can profitably enter and serve the residential telephone market in Massachusetts.[30]

The DTE concluded that a $2.44 increase will not harm the Department's universal service goals, based on similarity to the several, annual $2.18 increase in the early 1990s rebalancing plans and comparable increases in several other states and in the Federal subscriber line charge since 2000. For example, the Maine PUC approved a $1.78 increase in Verizon's basic monthly per line rate in May 2001 and the New York Public Service Commission authorized a two-year Incentive Plan which permitted an increase of $1.85 on March 1, 2002 and another $0.65 on March 1, 2003 for a total increase of $2.50 in the space of a year. The FCC's Federal subscriber line charge has increase from $4.35

[30] *Ibid*, p. 361.

in July 2000 to $6.50 in July 2003.

Q. PLEASE DISCUSS MAINE'S EXPERIENCE WITH RATE REBALANCING?

A. Significant rate rebalancing has been achieved in Maine in recent years, with no noticeable impact on telephone subscribership levels. In 1997, the Maine legislature (M.R.S.A. 35-A, §7101-B) directed the Maine Public Utility Commission to establish, notwithstanding any other provision of state law, intrastate access rates that are less than or equal to interstate access rates established by the FCC (*i.e.*, parity with interstate access rates) by May 30, 1999. At the time, Bell Atlantic's intrastate access rates were $0.26 per minute, significantly higher than its then-current Federal interstate access rate of about $0.07 per minute.

Subsequently, on March 17, 1998, the Commission approved an Order (Docket No. 94-123 reopened) that approved a stipulation between Bell Atlantic-Maine (now known as Verizon-Maine) and a group of intervenors, including the Commission's Advocacy Staff and the Public Advocate. This stipulation allowed Bell Atlantic-Maine to increase its basic local exchange rates by a total of $3.50 by May 30, 1999, with steps of $1.50 in 1998 and $2.00 in 1999. This was followed by another increase of $1.78 in 2000.

Maine continues to have the highest telephone penetration rate in the country—about 98 percent of Maine's households have telephone service.[31] In addition, lower intrastate toll rates have benefited some customer classes, especially those customers in rural areas with relatively small toll-free calling areas.

[31] MPUC Annual Report 2002, pp. 43.

Q. WHAT OTHER STATE EXPERIENCES DO YOU BELIEVE ARE RELEVANT?

A. In California in 1994, the Commission approved a rebalancing plan for GTE and Pacific Bell. GTE's residential rates immediately went from $9.75 to $17.25 while Pacific's residential rates went from $8.35 to $11.25.[32] Recently, as part of a rebalancing plan for Sprint's local telephone company in Ohio where intrastate access fees were lowered to mirror Federal charges, the Commission approved the creation of an end user charge of $4.10 for residential customers and $6.00 for single-line business.[33]

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

[32] *See*, Decision 94-09-065, *et. al.*, September 15, 1994.

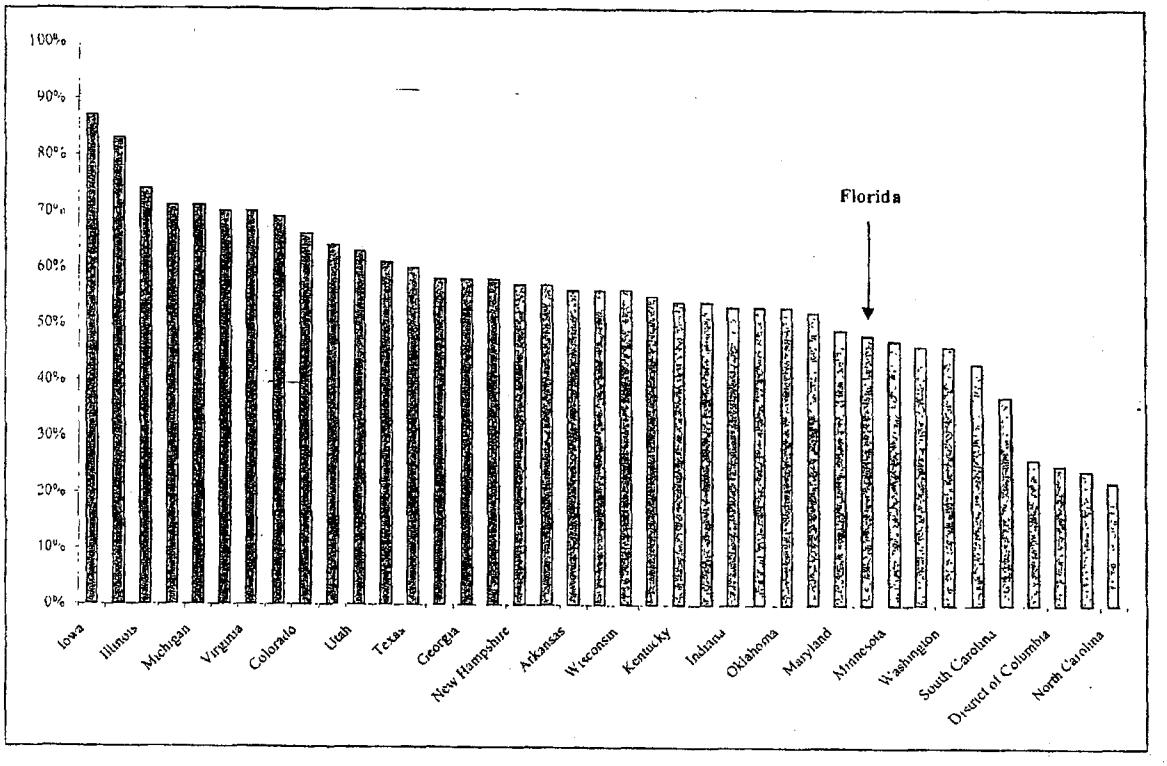
[33] *See*, The Public Utilities Commission of Ohio, Case No. 00-127-TP-COI and 01-1266-TP-UNC, June 28, 2001.

ATTACHMENT A

ATTACHMENT B

FIGURE 1 – PERCENT OF CLEC LINES SOLD TO RESIDENTIAL AND SMALL BUSINESS CUSTOMERS BY STATE, AS OF DECEMBER 31, 2002

SOURCE: FCC, *Local Telephone Competition: Status as of December 31, 2002*



Dkt. No _____
D. Blessing Ex. No. ___ (DCB-13)
Competitive Entry

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-13

James Eisner and Dale E. Lehman, *Regulatory Behavior and Competitive Entry,* presented at the 14th Annual Western Conference Center for Research in Regulated Industries, June 28, 2001; p. B24.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 21
Company/ Alltel
Witness: David C. Blessing (DCB-13)
Date: 12-01-05

Regulatory Behavior and Competitive Entry

James Eisner
Federal Communications Commission

and

Dale E. Lehman
Fort Lewis College

for presentation at the
14th Annual Western Conference
Center for Research in Regulated Industries
June 28, 2001

*The views expressed are those of the authors and not of any organization with which they are affiliated. The authors wish to thank Dennis Weisman and James Zolnierek for insightful discussion of our results.

ABSTRACT

The Telecommunications Act of 1996 provided for three forms of competitive entry into local telephone markets. First, entrants could use their own facilities to provide services, and interconnection with incumbent networks was mandated. Second, entrants to use total service resale to resell incumbent services at a discount to be based on avoided cost. Third, entrants could lease unbundled network elements (UNEs), possibly in combination with their own facilities, to provide services. UNEs were to be priced "based on costs." Since the passage of the Act, debate has raged in academic circles, hearing rooms and courtrooms on virtually every aspect of the terms for setting the relevant rates. Relatively little evidence on the effects on competitive entry has been provided: primarily due to a lack of comprehensively available data. This study uses new data collected by the Federal Communications Commission on all three forms of competitive entry. We examine a variety of models aimed at determining the effect of regulatory decisions on entry. Our approach is descriptive – what does the data suggest? We find states with low UNE prices have less facilities-based entry, with more ambiguous effects on the other two forms of entry. We find that long-distance entry (the *quid pro quo* provided by the Act in exchange for opening local markets to competition) has a large positive impact on entry, but the causation is unclear. Further, long-distance entry appears to complicate modeling the effect of UNE prices.

Introduction

In the wake of the Telecommunications Act of 1996, opinions abound concerning the ways in which regulatory behavior may or may not have affected the rate and type of competitive entry. Of particular interest has been the pricing of unbundled network elements (UNEs) and the setting of resale discounts. State regulators have been charged with setting these wholesale prices, subject to rules enacted by the Federal Communications Commission (FCC). A lengthy and continuing legal battle has ensued regarding jurisdictional issues over how much guidance (if any) the FCC has over the way in which state regulators set these prices. The Supreme Court finally established the right of the FCC to specify rules for the state to follow, but is still to decide on the merits of those rules. Amidst the legal wrangling, extreme views have prevailed regarding the impact of the FCC rules and the way in which the states have implemented them:

> "Entrants will make efficient decisions about the mix of resale and facilities-based competition only if their access to existing networks is provided at prices that accurately reflect economic costs. Subsidizing services by providing them at TSLRIC sends the wrong price signals and leads to incorrect decisions. When prices are too low, excessive use of underpriced facilities will result and thus distort the decisions of resellers. The entry and expansion of resellers is thus not only encouraged, but also financed by underpriced facilities. Moreover, when network services are priced too low, the building of competing facilities is likely to be discouraged. Thus, rather than stimulating facilities-based competition, TSLRIC pricing discourages it."[1]

> "Appropriate pricing of unbundled network elements, transport, and access termination is crucially important for promoting effective competition. The extent to and the speed with which competition will develop depend critically on having prices for unbundled network elements and services that are as close to efficient economic costs as possible. The more prices exceed efficient economic costs, the less entry there will be. The less entry there is, the less likely it will be that effective competition will develop in local exchange markets, and, if effective competition does develop, it will happen more slowly. There is only one cost measure that fulfills .... that cost measure is the long-run forward-looking economic cost, or Total Element Long run Incremental Costs."[2]

[1]Sidak and Spulber (1997), page 1152.
[2]Nicholas Economides (1999), pp. 455-483.

Much ink has been spilled and many trees felled debating the appropriate economic principles for satisfying the Act's requirements that wholesale prices be "based on cost."[3] Somewhat less evidence is available for determining the actual effects that regulatory decisions about prices have had. The Eighth Circuit found that the argument that "competing carriers will incur only minimal costs in gaining access to incumbent LECs' networks and have no incentive to build their own is merely speculative at best."[4] This paper provides evidence on how differing state pricing decisions have differentially affected the rate and types of competitive entry.

We know of only two other papers that present empirical evidence on this question. The conclusion of one:

> "we examined the major drivers and determinants of local exchange competition and investigated the hypothesis that inefficient local exchange prices are having an impact on competition and the hypothesis that they are inhibiting competition for residential customers. Examining data as of the end of 1998, we found support for both hypotheses."[5]

That paper found evidence that higher UNE prices reduced collocation activity, reduced the number of CLECs that enter, and that higher resale discounts tend to promote resale entry. All of these results were small, however, and of limited statistical significance. Our results are somewhat different. Our findings suggest ***that states with lower UNE prices have less facilities-based entry.*** Contrary to expectations, we find no evidence that states with lower UNE prices have more non-facility entry. Instead, we have the puzzling result that in some specifications, states with lower UNE rates also have less CLEC entry; however this depends on whether and

[3] For a good survey of these debates, see Alleman and Noam (1999).
[4] Iowa Utils. Bd. v. FCC, 120 F.3d at 816 (8th Cir. 1996).
[5] Ros and McDermott (2000).

how we account for 271 approval in the model. Our findings also suggest that there is less entry in states with higher residential retail rates although our evidence for this is not conclusive.

Data

There are two data sources that can be used to examine competitive entry, both from the FCC. From 1997 to 1999 the FCC collected voluntary information from ILECs on UNEs and resold lines used by CLECs. Beginning in December of 1999, the FCC used Form 477, requiring reporting from both ILECs and CLECs and including CLEC lines provided solely over its own facilities as well as UNE and resold lines. The differences between the two data sets are summarized in Table 1:

Table 1: FCC Data on Local Competition

	Voluntary Filings	**Form 477**
Time period used	1997-1999	1999 -
voluntary/compulsory	Voluntary	Compulsory for all Carriers with over 10,000 lines in a state
publicly available?	yes	Limited data available due to confidentiality concerns. Firm level data and some state level data is not available.
data collected	resold lines, UNE lines, # of CLECs authorized by state, % of end-user lines served out of wire centers in which there are collocation agreements	resold lines, UNE lines, facilities-based lines, # CLECs, # zip codes with competitive alternatives

The present study is the first to use the new (and not publicly available) CLEC data. The earlier data has the advantage of being publicly available with the disadvantages of being voluntary, limited (in particular, no facilities-based data from CLECs), and no longer in use. The new data, while superior in terms of coverage and mandatory reporting, has the disadvantage of the underlying data not being publicly available.

Unlike previous studies, we exclusively focus on the UNE prices and discount rates of RBOC jurisdictions. We assume that most of the CLEC entry is occurring in ROBC jurisdictions. The strategies, cost characteristics, and regulatory histories are more uniform across these than for other ILECs. This provides us with 48 jurisdictions (including the District of Columbia, but excluding Wyoming because the latter does not have regulator-determined UNE rates).

One additional note on the data is in order. The effect of regulatory policy on competitive entry is uniquely suited to the American environment, given the large number of state jurisdictions reaching independent determinations on wholesale and retail rates. The ability to use this diversity in the future, however, may be increasingly constrained. The combination of mergers and interLATA entry conditions have systematically been reducing the variation among the states. Merger conditions have frequently included discounts on UNE rates from the state-determined rates. The reviews of RBOC 271 applications have included comparisons of UNE rates across different states with the result of pressures to conform UNE rates to those in the initial states in which 271 approval has been granted (New York and Texas). For example, in its review of SBC Communications Inc.'s 271 application in Kansas and Oklahoma,

> "Justice noted that the rates SW Bell charges competitors for the use of UNEs are 'significantly higher' in Kansas and Oklahoma than in Texas, where the telco recently obtained FCC permission to offer interLATA services."[6]

This was followed by a voluntary change in SW Bell's UNE prices:

> "In an attempt to allay regulators' concerns about the rates it charges interconnecting carriers, Southwestern Bell Telephone Co. is offering competitors in Kansas and Oklahoma discounted rates for unbundled network elements (UNEs), as well as other concessions."[7]

As the diversity of UNE rates across states diminishes, it will be more difficult to study the effects of differing state regulatory decisions as well as increasingly difficult to maintain accurate data. The present study may well be the last opportunity to use data relatively "untainted" by these considerations.

The Models

We have examined competitive entry data for the three distinct forms of entry envisioned by the Act: total service resale, use of UNEs, and complete facilities-based entry. Ideally, these would be modeled as a simultaneous system since these entry decisions are interdependent. However, given the limited degrees of freedom and (as we shall see) the similarity of the models for the different forms of entry, two and three stage least squares models have not performed well.[8] We did conduct Hausman simultaneity tests for facilities and non facilities-based lines ($p = .87$) and for UNE and resold lines ($p = .95$). This tests the hypothesis that the difference is coefficients between the two-stage and OLS (independent equations) approaches is not systematic. In both

[6] *Telecommunications Reports*, December 11, 2000, page 8. The other paper is Jamison (2001).
[7] *Telecommunications Reports*, January 8, 2001, page 12.
[8] The signs of the coefficients are consistent with the results we will show, but there are few statistically significant coefficients in the second stage equations.

cases we find no evidence to support the need for simultaneous estimation. Hence, we will approach the three forms of entry through independent OLS estimation.

Table 2: Independent Variables and their Sources

variable	description	source	mean standard deviation
Arb dev from cost	average UNE rate minus 1999 embedded cost, as a percent	arbitration data from *State Arbitration Monitor, State Telephone Regulation Report, 1997*	21.7% 23.5%
employment	1999 statewide employment	*Demographics* Magazine	2,704,448 2,739,244
pricecap	1999 regulatory regime: 1=price caps; 0=Rate of Return; 0.5=sharing	State Telephone Regulation Report *White Paper*, April 3 and 17, 1998	74% with price caps
average UNE rate	statewide average UNE rate (interim)	*State Arbitration Monitor*	$17.24 $5.79
density	population density: persons/mi^2	census data	397 1419
1999cost	1999 average embedded loop cost for the RBOC	NECA universal service costs	$22.44 $4.45
resale discount	average statewide resale discount	industry contacts	18.21% 3.05%
business discount	average statewide discount for 1FB service	industry contacts	17.96% 3.52%
low UNE	lowest UNE price available - the final rate is used if there has been a final cost decision	*State Arbitration Monitor* and updated through industry contacts	$15.64 $5.51
UNE-cost	average UNE rate minus 1999 embedded cost	derived from above	$-5.21 $3.92
HCPM loop	statewide average forward-looking loop cost estimated in the FCC HCPM model	FCC	$22.41 $4.50
employment change	change in state employment 1990-2000	*Demographics* Magazine	544,253 605,785
busrate, resrate, BUSRES	average 1FB rate, 1FR, and their ratio	*Bell Operating Companies Exchange Service Telephone Rates*, Dec. 31, 1995, NARUC	busrate: $35.97 ($8.62) resrate: $13.90 ($3.79) BUSRES: 2.66 (.57)
271	dummy variable for states with approved interLATA entry, as of April, 2001.[9]		4 states with

[9] Our dependent variables are as of June 30, 2000 at which time only 1 state had 271 approval. In order to protect the confidentiality of the UNE line counts, we use 4 states in our 271 variable, including OK and KS that obtained

Our dependent variables, dated June 30, 2000, are summarized next:

Variable	Mean	Std. Deviation	Minimum	Maximum	N
# of CLECs	5.23	4.79	0	21	48
resold lines	87,151	126,583	0	623,515	48
UNE lines	83,500	181,959	0	1,114,451	48
facilities-based lines	86,923	114,704	0	573,455	48
Total CLEC lines	257,574	394,156	0	2,157,618	48

So, total CLEC lines are almost equally split between the three alternate forms of entry.[10]

Facilities-Based Entry

All of these regressions[11] use total facilities-based lines by state as the dependent variable. A combination of wholesale prices, retail prices, state demographics, costs, and regulatory variables were used as independent variables. Table 3 reports the regression results for each model.

271 approval after June 30, 2000, and TX in which SBC gained 271 approval on June 30, 2000. As of this writing, there is an additional state (MA) with 271 approval.

[10] We use the term "facilities-based" entry to denote lines served *totally* over CLEC facilities. Lines served with a combination of UNEs and CLEC facilities are denoted "UNE lines." Note that this differs from the usage in Ros and McDermott, where "facilities-based" refers to entry that uses UNEs.

[11] Note that all regressions were run including CLEC line counts from "voluntary" providers of data - carriers with less than 10,000 lines in a state. There is approximately a 2% difference in total CLEC lines when voluntary data is included, and the regression results are not affected to any noticeable degree.

Table 3: Regression Models for Facilities-based Entry

Independent Variables	Dependent Variable: Total Facilities-based Lines by State: Model #										
	1	2	3	4	5	6	7	8	9	10	11
Arb dev from cost	-658 (.019)										
employment	.0413 (.000)	.0415 (.000)	.0412 (.000)	.0409 (.000)	.0407 (.000)	.04 (.000)	.0395 (.000)	.0402 (.000)	.0447 (.000)	.0407 (.000)	.0398 (.000)
pricecap	5425 (.689)	8495 (.562)	9362 (.51)	10137 (.489)	2064 (.89)						
average UNE		2485 (.05)	4334 (.01)	4371 (.013)		3606 (.007)		3531 (.003)	3741 (.002)	4186 (.009)	3649 (.002)
1999cost			-3334 (.09)	-3616 (.086)	-1877 (.365)						
resale discount				-403 (.852)	-4.45 (.998)	508 (.795)				966 (.642)	
low UNE					2482 (.173)						
UNE-cost							3768 (.01)				
HCPM loop						-3961 (.011)	-1960 (.152)	-4034 (.008)	-4055 (.006)	-4291 (.01)	-4423 (.003)
employment change									-.0262 (.051)		
residential rates											2630 (.070)
271										-17,858 (.49)	
Adjusted R^2	.88	.88	.88	.88	.87	.89	.89	.90	.90	.89	.90

Notes: The numbers in each cell are the raw coefficients. The numbers in parentheses below are the p values (2-sided test). We also tried population density (positive coefficient, p=.62), business retail rates (positive coefficient, p = .537), the ratio of business to residential rates (negative coefficient, p=.43), and log-linear forms, but these did not produce any improvements

and the coefficients for the variables shown in the table did not change materially. We also tried GLS with almost identical results to OLS.

Our particular interest is in the regulatory variables. We found no evidence that regulatory regime matters for facilities-based entry, except through its effect on the UNE rates that a state adopts. We also found no evidence that retail business rates or their relation to residential rates matter, contrary to Ros and McDermott. They used a different business rate variable, the PBX trunk rate rather than the 1FB rate.[12] However, their finding that retail rates matter is confirmed by our result that higher retail residential rates tend to promote facilities-based entry. Our prior on the effect of residential rates on CLEC entry is ambiguous. Residential CLEC entry may be more profitable in states with higher residential rates due to arbitrage opportunities. An alternative hypothesis would be that states where the PUC set higher residential rates would have set lower business rates, thus reducing the incentive for CLECs to provide telephone service to business customers.

The four variables with fairly consistent significance are:

- employment: scale effects are clearly present with larger states (measured by total employment) having more facilities-based entry, *ceteris paribus*;
- UNE rates: the higher the statewide UNE rate for unbundled loops, the lower facilities-based entry;

[12] Although our business rate variable may or may not be the best one to use, there is some intuition that the level of business rates or the degree of price distortion may not matter. Business rates have historically been set at such high levels, that it is not clear that it matters if one state's rates are higher than another's. Competition should be expected to erode these noncompetitive rates in any case.

- HCPM loop: used as a proxy for the cost of building facilities in a state, this shows that more costly it is to build facilities, the less facilities-based entry will occur;
- resrate: higher retail local residential rates tend to promote facilities-based entry.

Resale

Our regression results for models with resold lines as the dependent variable appear in Table 4:

Table 4: Regression Models for Resale Entry

Independent Variables	Dependent Variable: Resold Lines: Model #							
	12	13	14	15	16	17	18	19
Arb dev from cost								
employment	.0538 (.000)	.0393 (.000)	.0381 (.000)	.0384 (.000)	.0394 (.000)	.0389 (.000)	.0385 (.000)	.0511 (.000)
pricecap								
average UNE	2730 (.082)	3241 (.119)		2567 (.218)	3254 (.122)	2615 (.189)	2451 (.221)	1576 (.389)
1999cost								
resale discount		2837 (.362)	1889 (.543)	2246 (.466)	2862 (.365)	2345 (.430)		
business discount							2114 (.410)	
low UNE								
UNE-cost								
HCPM loop	-5005 (.012)	-5300 (.03)	-3649 (.10)	-4513 (.065)	-5441 (.042)	-6317 (.009)	-6806 (.009)	-4430 (.029)
employment change	-.0821 (.000)							-.0789 (.000)
BUSRES				-26,526 (.135)				
busrate					188 (.888)			
resrate						8089 (.030)	8462 (.027)	1843 (.344)
271								43,028 (.161)
Adjusted R^2	.85	.78	.77	.79	.78	.80	.80	.86

These results indicate clear scale effects. There is also evidence that resale entry is more common in states with low growth rates. The coefficient on the resale discounts has the expected sign (higher discounts tend to increase resale) but are not statistically significant.

Resold lines decrease with the cost of facility-based entry (represented by the HCPM loop proxy). That is, CLECs are reselling more lines in states with lower cost.

UNE Lines

Our regression models for UNE based lines appear in Table 5:

Table 5: Regression Models for UNE Entry

Independent Variables	**Dependent Variable: UNE lines: Model #**							
	20	21	22	23	24	25	26	27
Arb dev from cost								
employment	.0581 (.0000)	.0357 (.000)	.0350 (.000)	.0360 (.000)	.0468 (.000)	.0466 (.000)	.0384 (.000)	.0678 (.002)
average UNE	9985 (.022)		847 (.863)		11,644 (.017)			4368 (.333)
1999cost								
resale discount		-4672 (.437)	-4568 (.483)	-4104 (.509)	3976 (.576)	-462 (.948)	-3109 (.606)	
low UNE							3616 (.343)	
UNE-cost		9.05 (.923)		UNE-HCPM 1493 (.725)		10,710 (.057)		
HCPM loop	-7606 (.152)		-2154 (.663)		-8226 (.136)			-3100 (.502)
employment change	-.0606 (.218)							employment squared $-2.55x10^{-9}$ (.092)
271		316,619 (.000)	311,182 (.000)	305,579 (.000)			321,389 (.000)	259,680 (.001)
resrate							7223 (.292)	
Adjusted R^2	.47	.61	.60	.61	.46	.44	.62	.63

Observations

- Our UNE models are the least satisfactory, both statistically and intuitively.
- Scale effects are evident.

- States with 271 approval appear to have significantly more UNE lines.
- UNE prices do not have statistically significant impacts on UNE lines -- if anything, the effect appears to be a that higher UNE prices go along with *more* UNE entry. We discuss this puzzling result later in the paper.

The 271 variable is not surprising. However, it is consistent with (at least) two quite different hypotheses or a mixture of the two. First, it may be that 271 entry is granted where there is more UNE based entry. That is, CLEC entry is more likely in states that have satisfied the conditions of 271. Second, 271 approval may trigger additional entry via UNEs. Since facilities lines showed no relationship with the 271 variable but facilities-based entry takes more time, it is possible that one CLEC response to 271 approval is to accelerate entry via UNEs. So, it is not clear which causes which. To the extent that 271 entry is granted only after sufficient UNE-based entry, it is inappropriate to include 271 entry as an explanatory variable. To the extent that increased UNE-based entry is a response to 271 approval, then it should be included.[13] To complicate matters further, the statistical significance of the UNE rates appears to depend critically on whether or not 271 entry is included as an independent variable. We will return to this issue when we examine total CLEC entry below.

Findings From the Voluntary Survey on Resold Lines and Collocation

We used data from the June 1999 voluntary survey to corroborate our finding on resold lines and UNE loops. The earlier FCC data is consistent with our current findings. We re-estimated Model #13 with the earlier data. Resold lines were found to be a function of:

[13] In truth, 271 approval and entry are simultaneously determined. Unfortunately, there are too many unobservable variables (e.g., strategic and political factors) to estimate such a model satisfactorily.

variable	coefficient	p value
employment	.0303	< .0001
average UNE	2301	.09
resale discount	454	.034
HCPM	-254	.874

$R^2 = .81$.

These results are largely consistent with those in Model #13 although the resale discount is much more significant and the HCPM loop cost is much less significant.

We also estimated Model #22 from the earlier FCC data. There were so few UNE loops and little variation across the states that the number of UNE loops was not a viable dependent variable. Instead, we used the percent of lines served out of wire centers in which there were collocation agreements (this variable was also examined by Ros and McDermott). Collocation indicates a likelihood that UNEs are either being used or the intention is to use UNEs. The model yielded the following results:

variable	coefficient	p value
employment	1.14	.000
271	-583,696	.477
resale discount	-55,985	.252
average UNE	62,369	.060
HCPM	-96,127	.013

$R^2 = .92$

These results are generally consistent with those in Model #22. We show that the UNE-HCPM variable is positive and significant, corroborating our result that higher UNE rates tend to be positively associated with greater use of UNEs. The coefficient on the 271 variable in June 1999 was statistically insignificant. This regression provides little insight as to whether UNE lines increased in New York and Texas before or after 271 as compared to other states. The

percentage of wire centers that have collocation agreements is an imperfect proxy for UNEs especially since UNE loops nationwide grew by over 250% between June 1999 and June 2000.

Interestingly, if we use % collocation as the dependent variable (that is how the FCC reported the data) in place of the number of lines available to collocators, the average UNE rate has a ***significant negative*** impact ($p = .034$). This matches the finding in Ros and McDermott (2000). Superficially, this seems to indicate that UNE use is inversely related to UNE rates. However, this only means that lower UNE rates contribute to the coverage of collocation agreements, not that there is actually more UNE use.

Discussion

The UNE rate variable is the most ambiguous, and potentially counterintuitive result. We expected that lower UNE rates would promote UNE entry, but there is no evidence of this. In order to further investigate this effect, we also constructed some models with total nonfacilities entry (UNE+ resold lines) and total CLEC entry as dependent variables. The results are in Table 6:

Table 6: Additional Regression Models for Aggregate CLEC Entry

Independent Variables	Dependent Variable								
	Resold + UNE lines	Resold + UNE lines	Resold + UNE lines	Total CLEC lines	Total CLEC lines	Total CLEC lines	Total CLEC lines	Total CLEC lines	Facilities Lines
Model	#28	#29	#30	#31	#32	#33	#34	#35	#36
arb dev from cost	-1786 (.164)								-493 (.05)
employment	.0896 (.000)	.1120 (.000)	.0734 (.000)	.1250 (.000)	.1257 (.000)	.1126 (.000)	.1632 (.000)	.1834 (.000)	.0339 (.000)
pricecap	27,984 (.657)								
average UNE		12308 (.023)	3242 (.62)	19,189 (.007)	20,831 (.003)	5925 (.407)	19,285 (.012)	25,302 (.001)	
HCPM loop		-12,382 (.066)	-6976 (.307)	-21,289 (.009)	-19,750 (.014)	-13,966 (.068)	-20,015 (.012)	-21,190 (.007)	
employment change		-.1426 (.025)			-383,029 (.110)			-461,487 (.053)	
employment squared							$-3x10^{-9}$ (.233)	$-4.7x10^{-9}$ (.062)	
resale discount			-2401 (.787)	1807 (.861)	1284 (.902)	2604 (.787)	3178 (.751)	-4102 (.695)	
resrate				15,900 (.204)		21,145 (.062)	16,927 (.17)		
271			336,103 (.004)			326,004 (.009)			
nonfacilities lines									.0824 (.009)
adjusted R^2	.62	.67	.70	.77	.77	.80	.77	.78	.90

It appears that the statistical significance of the average UNE rate for total CLEC entry disappears in the presence of the 271 variable. Given the size of the coefficient on the 271 variable and the sensitivity of the UNE coefficient to its presence or absence, we ran some

further regressions using interaction terms between UNE rates and 271 entry. Table 7 contains these results:

Table 7: More Total CLEC Line Models

independent variables	**Dependent Variable: Total CLEC Lines**				
	Model #37	Model #38	Model #39	Model #40 47 states	Model #41 47 states
employment	.1049 (.000)	.1369 (.000)	.1484 (.000)	.1032 (.000)	.0862 (.000)
Change in employment		-.2049 (.001)	-.1936 (.003)		.0834 (.03)
HCPM loop	-14,224 (.047)	-14,261 (.026)	-13,593 (.029)	-8451 (.023)	-7701 (.031)
resrate	13,490 (.047)	8390 (.170)	10,809 (.097)	6224 (.085)	7815 (.028)
Average UNE				5205 (.075)	3585 (.211)
UNE rate x 271	-26,038 (.143)	-39,580 (.017)	Using low UNE in place of average UNE -105,375 (.577)		
UNE rate x not-271	7980 (.194)	9869 (.073)	13,843 (.012)		
271	1,083,754 (.010)	1,440,943 (.000)	1,883,378 (.423)		
Adjusted R^2	.82	.86	.85	.90	.91

There are two interaction terms to permit the UNE rate coefficient to vary between states with 271 approval and those without. The difference between the coefficients is statistically significant at the 5% level, although neither coefficient is by itself.[14] Given the size of the 271 impact and its apparent relationship with the effect of UNE rates, and given the likelihood that

[14] This was confirmed by running an additional regression in which average UNE and the interaction of average UNE and 271 were separate independent variables. The sign on the latter was negative and statistically significant.

271 entry and strategic decisions[15] may create simultaneity problems, models #40 and #41 omit the one state which had 271 approval in June, 2000.

In most of these models, CLEC lines increase with residential rates and the effect is significant at the 90 percent significance level. Note also that (model #41) states with higher rates of employment growth tend to have significantly more total entry, once 271 is omitted. This is consistent with an expectation that markets with higher growth rates would be easier to enter (from both a cost and marketing perspective).

There is also no evidence that states with lower UNE rates have more entry, except in states with 271 approval – and that raises a variety of strategic issues that seem to call for a more complex simultaneous model. There are several possible explanations for failing to find an inverse relationship between UNE rates and the use of UNEs:

- First, the complementary nature of these two forms of entry may be sufficiently strong that the negative effect on facilities-based entry carriers over to UNE entry as well.
- Second, capital markets may sufficiently punish non facilities-based CLECs that access to capital forces there to be less UNE entry when facilities-based entry is deterred (via lower UNE prices).
- Third, lower UNE prices would be expected to lead to more nonprice discrimination.[16] To the extent this is feasible, it may inhibit entry more than the lower UNE prices could enhance it.

[15] Some of the strategic possibilities are examined in Laffont and Tirole (2000).

[16] See, for example Weisman, and Kang (2001) or Weisman and Kondaurova (2001).

- Fourth, lower UNE prices may appear to be more unsustainable upon predicted court challenges to the rates that regulators set.
- Fifth, as competition erodes the high margins on retail business rates, the UNE rates may become an effective floor on retail business rates. If this were the case, then higher UNE rates would represent increased profit potential in the long-run for CLECs and ILECs alike.[17]
- Sixth, high UNE rates could be correlated with unobservable factors that encourage CLEC entry. Note, for example, that UNE rates are determined by state commissions and could be measuring unobservable characteristics of those commissions.
- Seventh, average UNE prices in a state are the weighted average of the often deaveraged zone level UNE rates. Thus our UNE variable measures the average rate that CLECs pay for UNE loops, not the marginal price they face at the point of entry. Optimally we would have CLEC line counts at the zone level.
- Eighth, we have relatively small sample size and degrees of freedom, thus it may be difficult to separate out regulatory effects from price effects.

We attempted to test the third reason by examining states where the interim UNE rates were subsequently raised when setting final UNE rates. We used a dummy variable for those states that increased the average UNE rates, as well as those where the urban UNE rate was subsequently raised. Neither variable came close to statistical significance (p values well above .50). Thus, this measure provides no support for the hypothesis that the sustainability of low UNE prices was a factor discouraging the use of UNEs.

[17] Of course, this depends on the eventual nature of competitive dynamics in the industry. In particular, in an umbrella pricing scenario, the above reasoning could be valid.

We also examined two possible omitted variables that could account for our results. We had limited data (30 states) for non-recurring charges which are an additional cost of competitive entry. The coefficient on non-recurring charges was positive and not statistically significant. We also included a variable indicating whether or not a state had deaveraged UNE prices. The coefficient was again positive, but statistically insignificant.

Our results differ from those in Ros and McDermott (2000). There are several reasons for this. First, they did not have access to the data that we used in this paper. Second, we focused on RBOC jurisdictions whereas they included all state jurisdictions. Third, their major finding was that retail price distortions affect competitive entry while we did not find evidence of this. Their retail price data differed from ours - especially their business rates. We used 1FB rates (where available, otherwise usage was imputed to the available measured service plans) while they used the PBX trunk rate. Fourth, their UNE rate data appears to differ from ours - possibly by inclusion of some GTE rates from some jurisdictions. The most important difference, however, was that they did not have direct data on the three forms of competitive entry that we used in this study.

Other studies have used the number of CLECs as a dependent variable, so we examined the relationship between number of CLECs in a state jurisdiction and our independent variables.

Two suggestive models are:

Independent variable	Dependent variable: # of CLECs	
employment	$1.48x10^{-6}$ (.000)	$2.85x10^{-6}$ (.102)
employment squared		$-1.13x10^{-13}$ (.000)
average UNE price	-.0199 (.755)	.0888 (.102)
HCPM loop	-.125 (.129)	-.1373 (.035)
resrate	.060 (.461)	-.0098 (.879)
adjusted R^2	.81	.89

Of particular interest is the effect of UNE prices on the number of competitors. Our results are inconclusive.

Although both Ros and McDermott and Jamison find that lower UNE prices increase the number of CLECs (both find statistically significant results), our results do not point in that direction. It is possible that their results are affected by their inclusion of RBOC and non-RBOC jurisdictions, while we focus exclusively on RBOC jurisdictions. In particular (formerly) GTE UNE rates have generally been set higher than RBOC rates and there may be less extensive competitive entry in those jurisdictions for reasons other than UNE prices. The potential for additional variation in entry strategies according to whether the incumbent is an RBOC or not is one reason why we choose to focus on RBOC jurisdictions in this paper.

Conclusions

We summarize our conclusions in terms of the types of variables that might affect competitive entry.

- Demographic: there are clear scale effects with larger jurisdictions having more competitive entry. There is some indication that the effect is nonlinear. In addition, there is suggestive evidence that there is less entry in states that have been growing the most rapidly.
- Cost: there is less facilities-based entry where such entry is more costly (proxied by the HCPM loop costs). Resale and UNE-based entry appear to be similarly affected, although the statistical results are inconclusive.
- Retail rates: in some specifications, there appears to be less competitive entry (principally facilities-based) where residential rates are lower. These findings are generally statistically significant at the 90% level. We did not find any meaningful evidence that the degree of rate distortions between business and residential rates matters, although this may be due to incorrect measures of rate distortions.
- Wholesale prices: resale discount rates appear to have no predictive power for any form of entry. States with higher UNE rates have more facility-based entry. The effect of UNE rates on CLEC entry is positive, and in some specifications statistically significant if states with 271 approval are excluded. Further research is needed to investigate this puzzling result.
- 271 approval appears to have a significant impact (positive) on UNE-based entry, although the direction of causation is unclear. 271 approval leads to considerable complications in understanding the impacts of UNE prices on entry decisions – also a subject for further analysis.

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Dkt. No _____
D. Blessing Ex. No. ___ (DCB-14)
Tariff Rebalancing: Latin America

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-14

Agustin J. Ros and Aniruddha Banejee, "Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America," *Telecommunications Policy,* 24 (2000) 233-252

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 22
Company/ Alltel
Witness: David C. Blessing (DCB-14)
Date: 12-01-05

Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America

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Abstract: **Using panel data on 23 countries, we find a positive and statistically significant relationship between privatization and network expansion and efficiency in the Latin American region. We also find that excess demand for basic service is strongly and negatively related to tariff rebalancing, suggesting that an increase in residential service prices can mitigate unmet demand for basic service in the Latin American region by, in the long run, increasing the supply of main lines. According to our results, a 10 percent increase from the average residential price in Latin America is likely to reduce unmet demand by approximately 4.1 percent. Finally, we find that privatization is negatively related to unmet demand. In particular, privatization reduces unmet demand by approximately 28 percent. This indicates that, even after controlling for tariff rebalancing, there are concrete efficiency gains from privatization.**

I. INTRODUCTION

Latin America's biggest privatization occurred in July 1998 when TeleBrazil ("Telebras") was sold for approximately US$19 billion.[2] The selling of Telebras continues the trend, especially in Latin America, of eliminating the state's equity stake in telecommunications. Since the Telebras privatization, other countries have also considered privatization. In a recent paper, one of us found evidence that telecommunications privatization and competition are positively correlated with technical efficiency and that privatization is

[1] We thank participants in the Transportation & Public Utilities Group at the 1999 American Economic Association meetings in New York and Rutgers University's Advanced Workshop in Regulation and Competition, Newport RI, May 1999. Special thanks are due to Edgardo Sepulveda and the anonymous referees for their helpful comments.

[2] Telebras was the name of the state-owned phone company in Brazil. In July 1998, the government sold 12 companies: three fixed-line companies, one long distance and international company, and eight cellular holdings.

positively correlated with network expansion.[3] Using data from the International Telecommunications Union ("ITU") and various other sources, the paper examined telecommunications reform in developed and developing countries for the period 1986-1995. The same article also found that monthly residential access prices were *positively* correlated with network expansion. That brought into question whether positive network externalities could be captured through lower prices for residential access services.[4]

The purpose of this paper is to build upon previous work and extend the literature in three specific ways. First, we examine a subset of the data used in the previous paper and attempt to replicate the results. For this purpose, we concentrate on the Latin American region alone because of the number of telecommunications privatizations that have occurred over the last 15 or so years in that part of the world. The large numbers of privatizations allow for greater variation in the privatization variable and, by focusing on Latin America, we are able to examine how robust policy implications are for different regions of the world.

Second, we examine qualitatively the way that privatizations have been carried out in Latin American telecommunications markets. This permits us to better understand the privatization process itself and identify what it is about privatization that may explain previously results. While other studies have quantified the impact of privatization (see below), we examine other important factors that often accompany privatization—such as tariff rebalancing—and whether, after controlling for those factors, privatizations by themselves still have a significant impact on key variables.

Finally, and most importantly, we test whether tariff rebalancing has had any effect on network expansion. Many privatizations have been carried out simultaneously with tariff rebalancing. We develop a quantitative variable measuring the degree to which residential

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[3] Ros, A.J., Does Ownership or Competition Matter? The Effects of Telecommunications Reform on Network Expansion and Efficiency. *Journal of Regulatory Economics*, 1999, **15**:65-92.

[4] The main explanation for this result is that low penetration rates in many developing countries arise not from a lack of effective demand but rather from supply-side constraints. Because residential access prices are likely to be below their economic costs and, therefore, below equilibrium levels, holding other factors constant, the decrease in quantity demanded that results from higher residential prices is more than offset by the greater supply that results from increased prices.

access prices are "unbalanced" and develop an excess demand model to investigate how waiting lists are affected by a host of independent variables including the quantitative measure of the degree to which residential prices are "unbalanced." This part of the paper tests the hypothesis that some of the benefits of privatization found in previous studies may be explained, in part, by exogenous factors such as tariff rebalancing that occurred just prior to privatization.

Policymakers undertake telecommunications reform in order to improve the efficiency of the sector and to provide service to as many consumers as possible. As many of these countries seek to "liberalize" their telecommunications sector—which were hitherto mostly government-run monopolies—they have to shape public policy with respect to competition, privatization, tariff rebalancing, elimination of cross-subsidies, licensing, and regulation or settlement of disputes. In order to determine the proper sequence for introducing such reforms, it is vital to learn about the relative impacts on market development of each individual reform. Our paper is intended to contribute a piece to this understanding by measuring the likely impact of privatization and tariff rebalancing.

II. EFFECTS OF PRIVATIZATION

A comprehensive review of the literature regarding the effects of telecommunications privatization and competition appears in a previous study.[5] For purposes of this paper, we summarize the most important findings of the relevant literature in this section. We begin with information on why countries have chosen to privatize their telecommunications assets.

A. Reasons to privatize

Between 1986 and 1995 (the period studied empirically in this paper), the main provider of basic telecommunications services in 17 countries was at least fifty percent owned by the

[5] *Op cit.*, ref. 3.

private sector.[6] Ten of those countries (listed in Table 1 below) are in Latin America. Since 1995, the most notable addition has been Brazil where, in the summer of 1998, the government sold the Telebras network to outside investors. As mentioned above, Brazil raised $19 billion from the sale, with the average bid exceeding by 64 percent the combined asking price of $11.8 billion.[7]

Table 1: Countries in which the main provider of basic services is owned by the private sector (at least fifty percent of assets/shares) 1986-1995.[8]

Hong Kong	(1986 or earlier)	Mexico	(1990)
Philippines	(1986 or earlier)	New Zealand	(1990)
Spain	(1986 or earlier)	Argentina	(1991)
United Kingdon	(1986 or earlier)	Bolivia	(1995)
Barbados	(1986 or earlier)	Chile	(1987)
Belize	(1986 or earlier)	Guyana	(1991)
Canada	(1986 or earlier)	Peru	(1994)
United States	(1986 or earlier)	Venezuela	(1991)
Jamaica	(1989)		

There are many reasons why governments privatize their telecommunications assets. First, in developing countries, privatization emerged as a policy issue amidst the debt crisis and worsening financial performance of the early 1980s.[9] Second, there is also the belief in developing countries that privatization *per se* leads to the development or "crowding-in" of a nascent private sector and ameliorates any downward trend in aggregate private sector investment (such as that occurred during the 1980s). Finally, countries expect substantial improvements in the efficiency of the telecommunications sector. For example, some of the

[6] For purposes of this paper, privatization is defined as the sale of at least fifty percent of the assets to the private sector. Privatization can take other forms as well, e.g., (1) partial privatization (less than fifty percent sale of assets by the state), (2) transfer of assets to the private sector under leasing arrangements, and (3) introduction of management contracting arrangements.

[7] Mercosur telecommunications update, July 29, 1998.

[8] Sources: Wellenius, B., and Stern, P., *Implementing Reforms in the Telecommunications Sector: Lessons from Experience*. Washington D.C.: World Bank, 1994, and Molano, W.T., *The Logic of Privatization: The Case of the Telecommunications in the Southern Cone of Latin America*. Greenwood Press, Westport, CT, and London, 1997.

[9] Adam, C., Cavendish, W., and Mistry, P.S., *Adjusting Privatization: Case Studies from Developing Countries*, Portsmouth, New Hampshire: Reed Publishing, 1992. See also Ramamurti, R., The Impact of Privatization on the Latin American Debt Problem. *Journal of International Business Studies*, **23**:93-125.

major telecommunications problems in developing countries are: long wait times for obtaining service, poor service quality, low productivity, and an inability to meet the increasing and sophisticated telecommunication demands of the private sector which, in turn, encourages bypass of the system.[10] Given the links between telecommunications and economic growth, it is hoped that improvements in the performance of the telecommunications sector will lead to discernible increases in economic growth and the establishment or growth of an information-age economy.[11]

B. Predicted effects of privatization

As the state decreases its equity stake in telecommunications, what do economists predict will happen to technical efficiency and network expansion? The new institutional economics (NIE) provides important insights into the incentive effects of differing types of ownership structure.[12] According to the NIE literature, the type of ownership has a significant effect on technical efficiency because, at the margin, changes in property rights alter incentive structures faced by decision-makers. Predicted efficiency improvements associated with privatization are primarily due to changes in the principal-agent relationship and the concomitant change in transaction costs associated with supervision.

The effect on network expansion is not as clear for a variety of reasons. Applying a principal-agent framework provides important insights into the question of whether there is likely to be, on average, a significant change in network expansion as a result of privatization.

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[10] Wellenius, B., et. al. (1994) *op. cit.*, ref. 8.

[11] See Saunders, R.J., *Telecommunications and Economic Development*. Washington D.C.: The World Bank, 1994, for an extensive review of the effects of telecommunications on economic development. Also see Cronin, F.J., Parker, E.B., Colleran, E.K. and Gold, M.A., Telecommunications Infrastructure Investment and Economic Development. *Telecommunications Policy*, 1993, August:415-430; Cronin, F.J., Colleran, E.K., Herbert, P.L. and Lewitzky, S., Telecommunications and Growth. *Telecommunications Policy*, 1993, December:677-690; and Dholakia, R.R. and Harlam, B., Telecommunications and Economic Development. *Telecommunications Policy*, 1994, **18**:470-477.

[12] North, D.C., 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge University Press, 1990 and Levy, B. and Spiller, P.T., *Regulations, Institutions, and Commitment: Comparative Studies of Telecommunications*. Cambridge University Press, 1996. The new institutional economics is a way of reasoning and approaching political economic problems. Its objective is to broaden and modify the microeconomic foundation of economic theory by taking into account the important effects that institutions have on the performance of economies over time.

Some researchers reject the notion that differences between public and private enterprises are intrinsic.[13] Instead, differences are grounded in the disparity between the objective function of public and private sector owners. Institutional factors in many countries—especially the strong political element of telecommunications policy—increase the likelihood that an important component in the objective function of state-owned telecommunications firms is the provision of basic services to as many individuals as possible—especially residential consumers—at prices that may be below the incremental costs incurred. The inefficient prices that support that objective can only artificially inflate the quantity of basic telecommunications service demanded. Thus, holding other factors constant, a change from public to private ownership during a regime of inefficiently low prices may lead to a very different objective function on the part of the new owners and may negatively affect network expansion. In a private company, shareholders may be reluctant to increase the number of lines in operation unless doing so is profitable or is mandated by concessions.[14]

This brings us to an assertion that had been tested in previous work[15] and remains the basis for this paper. If a government's objective is to provide service to as many individuals as possible at prices below incremental costs, why is it the case that many developing countries—where telecommunications is in state hands—have extremely low penetration rates?[16] One possibility is that in many developing countries, low penetration rates are the result of supply rather than demand-side constraints. For example, Brazil has had a high level of *unmet* demand for basic services as reflected by the willingness of the public to make substantial lump-sum payments simply to queue for telecommunications services. A thriving resale market exists

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[13] *Op cit.*, ref. 8.

[14] For this reason, some of the privatizations that were carried out contained explicit network expansion goals in the concessions. This was the case in Mexico regarding network expansion in rural areas.

[15] *Op cit.*, ref. 3.

[16] For a comparison of penetration rates in Latin America see Ros, A.J., When, Where, and How? Implementing Effective Telecommunications Competition and Regulatory Policy. *The Journal of Project Finance*, 1997, **3**:33-42.

with daily valuations of rates reported in many local newspapers and individuals willing to pay substantially above the official rates required just to queue for service.[17] Penetration is low not due to insufficient demand at current prices but rather due to insufficient supply. Prices for residential basic (access) service are below equilibrium levels and lead to excess demand. As a result, we should expect higher prices to be associated with greater supply and less unmet demand, in light of the typically low price elasticity of demand for access to basic service. We test this hypothesis in Section IV below.

C. Empirical review

To date, there have been surprisingly few empirical studies focused solely on analyzing the effects of ownership or competition on the telecommunications industry. A previous study used newly released data from the ITU to examine the effects of privatization and competition on network expansion and technical efficiency.[18] In that study, the sample data pertained to over 100 countries for the period 1986-1995. The study used a fixed-effects panel data model and controlled for the possible endogeneity of privatization and competition by employing a discrete choice instrumental variable approach.[19] The dependent variables were various measures of network expansion and technical efficiency, while the independent variables were dummy variables for privatization and competition and additional control variables such as prices, investment per line, and per capita income. Table 2 below summarizes the most important results of that study. ML100 and ML100G are, respectively, main lines per 100 inhabitants and growth in main lines per 100 inhabitants, while MLEmp and MLEmpG are, respectively, main lines per employee and growth in main lines per employee.

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[17] *Ibid.*

[18] *Op cit.*, ref. 3.

[19] The econometric model used is explained in greater detail below.

Table 2: Coefficient estimates from previous study: important independent variables only (percent impact in parentheses)[20]

Independent Variable	Dependent Variable			
	ML100	ML100G	MLEmp	MLEmpG
Pvtmaj	0.293* (34)	0.671*** (96)	0.685* (98)	1.47** (330)
Comp	n.s.	n.s.	0.361* (43)	n.s.

*Statistically significant at the 1% level, ** at the 5% level, and *** at the 10% level, n.s. (not significant).

As these results show, while privatization appeared to have a statistically significant impact on all measures of network expansion and technical efficiency considered, competition appeared to have a relatively less important role with a statistically significant effect only on main lines per employee.

The other important finding from this study pertained to the effect of residential service prices on network expansion. Specifically, it was found that initial residential connection charges and monthly residential subscription charges are *positively* and significantly correlated with main lines per 100 inhabitants. In addition, for countries with real 1990 GDP per capita less than US$10,000, there was evidence that monthly residential subscription charges are positively and significantly correlated with *growth* in main lines per 100 inhabitants. This finding raises important questions regarding the wisdom of trying to generate positive network externalities through inefficiently low residential basic service prices. Since generation of those externalities is frequently the cornerstone of government policy on telecommunications pricing, we examine the matter in some detail below.

Other studies provide additional insights on these relationships. One econometric study of the effects of privatization and competition on Total Factor Productivity (TFP) concluded that competition to AT&T and privatization of British Telecom (BT) have both produced significant gains in productivity: 17 percent and 25 percent respectively.[21] Another study compared BT's performance with those of five telecommunications enterprises elsewhere in Europe using the

[20] *Op cit.*, ref. 3.

[21] Kwoka, J.E. The Effects of Divestiture, Privatization, and Competition on Productivity in U.S. and U.K. Telecommunications. *Review of Industrial Organziation*, 1993, **8**:49-61.

TFP measure and concluded that BT was less efficient than the control group.[22] A study of telecommunication privatizations in Mexico, Argentina, Jamaica and Venezuela concluded: "the most striking and consistent short-run result in the telecommunications sector was the rapid expansion of the network after privatization."[23] Finally, a study of telecommunications in 10 OECD countries found that private ownership increases productivity but that any relationship between the presence of facilities-based long distance competition and productivity growth is statistically insignificant.[24]

III. TELECOMMUNICATION PRIVATIZATIONS IN LATIN AMERICA

A. Characteristics

As described in Table 1 above, 10 countries in Latin America had privatized their telecommunications network by 1995. Two of those countries, Belize and Barbados, had been privately owned prior to 1986, the first year of our data. We summarize the salient features of some of the remaining eight countries. We examine only those countries where tariff rebalancing occurred just prior to privatization and/or whether there was a network expansion commitment in the concession contract.[25] This information will be used in Section IV of this

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[22] Foreman-Peck, J., and Manning, D., How Well is BT Performing? An International Comparison of Telecommunications Total Factor Productivity. University of Newcastle, Department of Economics, Newcastle-upon-Tyne, England, 1988.

[23] Ramamurti, R. *Privatizing Monopolies: Lessons from the Telecommunications and Transport Sectors in Latin America*. Baltimore: The Johns Hopkins University Press, 1996, p. 26. Specifically, the study found that three to four years after privatization, the network grew annually at 13 percent in both Mexico and Argentina, more than 15 percent in Venezuela, and 18 percent in Jamaica. According to Ramamurti, these figures are double or triple historic growth rates and exceed the targets set by governments. In addition, he found that labor productivity (as measured by number of lines in service per employee) grew annually by double digits in Venezuela, 13 percent in Mexico, and 19 percent in Argentina.

[24] Staranczak, G. A., Sepulveda, E. R., Dilworth, P. A., and Shaikh, S. A., Industry Structure, Productivity and International Competitiveness: The Case of Telecommunications. *Information Economics and Policy*, 1994, 6:121-142.

[25] To the extent that we unintentionally exclude information on some countries that have rebalanced their tariffs, our econometric model should control for this. As discussed below in greater detail, we create a variable measuring the degree to which prices in all countries deviate from prices in the countries that *have* rebalanced their tariffs. To the extent some countries have rebalanced their tariffs but are not included in the "base" (or pool of countries from which the average *rebalanced* residential basic access service price is calculated), their deviation from the base is expected to be minimal.

paper to develop an independent variable measuring the degree to which prices in some countries are "unbalanced" and deviate significantly from their underlying costs. Table 3 below summarizes the qualitative findings.

Chile was among the first Latin American countries to privatize telecommunications networks. Since privatization in 1987, prices in Chile have been based on a theoretical model that estimates long run incremental costs.[26] Beginning in 1988, the model was used to phase out cross-subsidies over a five year period.[27] Apparently, there were also network expansion provisions in the concession contract that accompanied the privatization, although it is not clear what they were.[28]

Mexico privatized its telecommunications network in 1990. Network expansion was an important element in the concession contract set up for that privatization.[29] The concession contract called for annual average growth of 12 percent for the first four years after privatization. Within three months of the announcement (in 1989) that the Salinas administration was going to privatize TELMEX, the publicly owned company was permitted to raise rates substantially. It is noteworthy that just prior to the transfer of ownership, prices of most services were as high as, or substantially higher than, prices of equivalent services in the United States.[30]

Argentina rebalanced tariffs just prior to its privatization in 1991 and also included a network expansion provision in its concession contract.[31] The price increases that followed were confined primarily to local and long distance usage charges, although those price increases were significant even in real terms. At the time, Argentina was experiencing peak

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[26] Melo, J.R., *Liberalization and Privatization in Chile*, in Wellenius, B. and Stern, P.A., *op cit.*, ref. 9.

[27] Galal, A., *Chile: Regulatory Specificity, Credibility of Commitment, and Distributional Demands*, in Levy, B. and Spiller, P.T., *op cit.*, ref. 11.

[28] *Op cit.*, ref. 24.

[29] Gonzalez, A.E., Gupta, A. and Deshpande, S., Telecommunications in Mexico. *Telecommunications Policy*, 1998, **22**:341-358.

[30] *Op cit.*, ref. 22.

[31] *Ibid.*

hyperinflation. The concession contract called for an initial annual growth rate of 6.5 percent that dropped to 2.8 percent between 1995 and 1996.

The telecommunications sector in Venezuela was privatized in 1991. Network expansion was a formal commitment and a condition of privatization. Venezuela established annual goals for various regions within the country and policymakers expected demand to be met fully by the year 2000.[32] As was the case with Argentina and Mexico, Venezuela raised its tariffs significantly at the time of privatization. The connection charge for residential customers increased from 3,500 bolivars in 1990 to 6,700 bolivars in 1992, an increase of 91 percent in nominal terms.

Finally, privatization in Jamaica was not accompanied by significant tariff rebalancing or network expansion contracts.[33] In contrast, privatization was accompanied by concession contracts in Guyana,[34] while, in Peru, tariff rebalancing in the early 1990s preceded privatization in 1994 and network expansion requirements were placed in the concession contract.[35]

Table 3: Tariff rebalancing and network expansion requirements in some privatizations[36]

Country	Year privatized	Tariff rebalancing prior to privatization	Network expansion requirements
Chile	1987	Price set by long run incremental cost model	Yes
Jamaica	1989	No	No
Mexico	1990	Yes	Yes
Argentina	1991	Yes	Yes
Venezuela	1991	Yes	Yes
Guyana	1991	No	Yes
Peru	1994	Yes	Yes

[32] *Ibid.*

[33] *Ibid.*

[34] *Op. cit.*, ref. 9.

[35] See http://www.osiptle.gob.pe

[36] Source: *op cit.*, refs 9, 11, 24, and 27.

B. Does privatization affect network expansion and efficiency?

To answer this question, we employ the same econometric model that was used in previous work.[37] In the present exercise, however, we apply the data only from Latin American countries.[38] The large number of privatizations in Latin America allows for greater variation in the privatization variable and, by focusing on Latin America, we are able to examine how robust policy implications are for different regions of the world. Subsequently, in Section IV of the paper, we expand the analysis to explore the effects of tariff rebalancing as well.

1. Data and variables

Table 1 above lists the countries that privatized telecommunications between 1986-1995.[39] From this list, we select the ten countries in the Latin American region (i.e., South America, Central America, and the Caribbean). To these ten countries that had privatized at some point between 1986 and 1995, we add 14 other Latin American countries that had not privatized by 1995 (although Brazil privatized in 1998). The 23 countries in the present study are: Argentina, Barbados, Belize, Chile, Guyana, Jamaica, Mexico, Peru, and Venezuela (all privatized) and Bahamas, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Suriname, Trinidad and Tobago, and Uruguay (all not privatized). All requisite data for these countries are taken from an ITU publication.[40] This results in a panel of data with 23 cross-sections (countries) and 10 time periods (years).

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[37] *Op cit.*, ref. 3.

[38] We also do not examine the effects of competition in the present study because of the lack of data of requisite quality.

[39] As explained earlier, a country is said to have privatized if at least fifty percent of telecommunications assets are in private hands.

[40] International Telecommunications Union, *Yearbook of Statistics: Telecommunication Services 1986-1995*. Geneva, Switzerland, 1997. The ITU is an international organization through which governments and the private sector coordinate global telecommunications networks and services. It is the leading publisher of telecommunication technology, regulatory and standards information, and provides data for approximately 130 countries worldwide.

We assemble data on the two main dependent variables of interest: (1) main lines per 100 inhabitants and (2) main lines per employee.[41] Apart from these variables, we also assemble annual data on: the wait list for main lines, faults per 100 main lines, investment in telecommunications equipment, and tariff information such as residential and business network access connection prices, residential and business monthly recurring network access prices, and the price of a 3 minute local call. We use consumer price index and exchange rate data to adjust and express prices in all countries in equivalent 1990 real US dollars. Finally, we assemble macroeconomic and demographic data such as GDP and population from which we construct other variables like GDP per capita. Apart from the ITU data, we use a dummy variable for privatization (taking the value 1 if a country has privatized, and 0 otherwise). Table 4 below describes some of the variables used in this part of the study.

Table 4: Description of variables

Variable	Description
ML100	Main lines per 100 inhabitants
ML100G	Annual growth in ML100
Wait	Waiting list for main lines, in thousands
MLEmp	Main lines per employee
MLEmpG	Annual growth in MLEmp
Faults	Faults per 100 main lines per year
Prcon	Price paid by residential user for initial connection to the network (1990 US$)
Pbcon	Price paid by business user for initial connection to the network (1990 US$)
Prmsub	Price paid by residential user for monthly network access (1990 US$)
Pbmsub	Price paid by business user for monthly network access (1990 US$)
P3min	Price of a 3 minute local call, peak rate (1990 US$)
InvesL	Annual telecommunications investment per main line (thousands of 1990 US$)
GDP	Gross Domestic Product per capita (thousands of 1990 US$)
Pvtmaj	1 if 50% of assets of main provider of basic services privately held, 0 otherwise

[41] Main lines per employee is used as a proxy for productivity growth. While this is a commonly-used measure of the efficiency for the local exchange carriers in the U.S., it is not a measure of TFP growth which, ideally, should be used. As a result, there may be problems with the use of this measure, particularly because of the strong political appeal of absorbing labor into any state-owned sector.

2. Econometric model

For our econometric analysis, we employ a cross-section/time series (panel) data model with the following semi-logarithmic functional form:

$$(1) \quad \ln y_{it} = \alpha + \beta' x_{it} + \delta' d_{it} + v_i + \varepsilon_{it}$$

where i (=1,2,...,M) is the subscript for the cross-sectional dimension (country) and t (=1,2,...,T) is the subscript for the time series dimension (year). In this study, M=23 and T=10. In addition, y_{it} is a T×1 vector representing, alternately, main lines per 100 inhabitants and main lines per employee.[42] This provides two separate regressions based on equation (1). α is a 1×1 scalar constant, β is a K×1 vector of coefficients, x_{it} is a T×K matrix of observations for each country on K exogenous variables, d_{it} is a dummy variable, δ is the coefficient of that dummy variable, v_i is a T×1 vector of the effects of omitted individual-specific (here, country-specific) variables, and ε_{it} is a random disturbance variable assumed to be distributed with zero mean and specifiable covariance structure.[43] Treating v_i as fixed parameters leads to the *fixed effects* form of the panel data model, while treating v_i as a random variable with known distribution leads to the *random effects* form of the panel data model.[44]

3. Model estimation and interpretation

Table 5 presents the results of estimating the specified panel data model for 23 Latin American countries over 10 years. The results pertain to the random-effects form of the model and are feasible generalized least squares (FGLS) estimates that correct for heteroscedasticity and first-

[42] In the previous paper, see *op cit.*, ref. 3, the *growth* in main lines per 100 inhabitants and in main lines per employee had also been used as dependent variables. Attempts to replicate those regressions with the Latin American dataset did not produce the statistically significant relationships that had been observed in the previous paper (employing worldwide data) and are, hence, not reported.

[43] The starting assumption can be that ε_{it} is distributed identically and independently with zero mean and finite, constant variance. This assumption can be relaxed to allow for heteroscedasticity (non-identical distribution) and/or serial correlation (non-independent distribution) following tests on the data.

[44] The fixed effects model adds M parameters (the v_i for all M countries) while the random effects model renders the intercept term for each country random. The best known test for discriminating between these competing models is the Hausman test: Hausman, J.A., Specification Tests in Econometrics. *Econometrica*, 1978, **49**:1251-1271. Also see Hsiao, C., *Analysis of Panel Data*, New York: Cambridge University Press, 1986, Ch. 3.

order serial correlation that varies by country.[45] The exogenous variables used in the two regressions based on equation (1) are the privatization dummy and GDP per capita lagged one year.[46] When interpreting the coefficient estimates, it should be remembered that the percentage impact on y of a dummy variable is given by e^{δ} -1, while β gives the impact on y of a unit change in an exogenous variable x.[47]

Table 5: Regression results: effects on network expansion and technical efficiency (t-statistics in parentheses for coefficient estimates)[48]

Independent Variable	Dependent Variable	
	ML100	MLEmp
Pvtmaj	0.20	0.22
	(5.14)	(3.58)
GDPlag	0.25	0.06
	(11.46)	(2.60)
Constant	1.25	4.00
	(15.33)	(41.01)
N (no. of obs.)	215	195
Log Likelihood	253.2	161.4
χ^2 statistic	171.5	27.5

[45] A Bartlett M test confirmed the presence of heteroscedasticity in the two regressions. The computed M statistic (with a χ^2 distribution) had a value of 149.6 and 369.9 respectively for the two regressions. At 22 degrees of freedom, these χ^2 values were highly statistically significant at conventional levels of significance. This test is proposed for panel data regression by Baltagi, B.H., *Econometric Analysis of Panel Data*, New York: John Wiley, 1995, p. 80, and is described in Judge, G.G., Griffiths, W.E., Hill, R.C., Lutkepohl, H., and Lee, T.C., *The Theory and Practice of Econometrics*, New York: John Wiley, 1985, p. 448.

[46] In a previous study, *op. cit.*, ref. 3, investment and price variables were included as exogenous variables. Those variables are excluded here because their estimated coefficients are statistically insignificant and their omission improves the log likelihood values.

[47] Halvorsen, R. and Palmquist, R., The Interpretation of Dummy Variables in Semilogarithmic Equations. *American Economic Review*, 1980, **70**:474-5.

[48] In a previous study, *op. cit.*, ref. 3, the privatization variable was found to be jointly endogenous (i.e., correlated with the regression disturbance term). As a result, an instrumental variable technique was used to estimate the coefficient of the privatization variable. Specifically, the decision to privatize was modeled as a discrete choice using a logit model. The predicted probabilities were then interacted with the observed dummy variables and used as instruments in the second stage estimation process. See Donald, S.G., and Sappington, S.E.M., Choosing Among Regulatory Options in the United States Telecommunications Industry. *Journal of Regulatory Economics*, 1997, **12**:227-243, and Duncan, G.M. The Endogeneity of Union Status: An Empirical Test. *Journal of Labor Economics*, 1985, **3**:385-402. In this paper, we tested whether the Latin American data set also displayed the same endogeneity problem. After performing the Hausman test on the two regression equations, however, there was no evidence to indicate that the privatization variable and the individual-specific disturbance terms are correlated.

Degrees of freedom	(2)	(2)

All estimated coefficients are statistically significant at the 1% level.

Comparison of the privatization coefficients in Table 5 with their counterparts in Table 2 confirms that privatization is still a significant factor positively affecting network expansion and technical efficiency. The magnitude of the impact in Latin America compared to the rest of the world, however, is smaller. According to the results, ML100 and MLEmp are, on average, 22 and 25 percent higher, respectively in the Latin American countries that have privatized. This compares with figures of 34 and 98 percent, respectively, when world-wide data were used.

IV. EFFECT OF TARIFF REBALANCING

The third, and most important, objective of this paper is to examine whether tariff rebalancing has had any effect on network expansion and whether, after controlling for tariff rebalancing, privatization remains an important factor. Previous work had established a *positive* correlation between prices for residential basic access service and network expansion.[49] In that study, as also in the present one, network expansion was measured by trends in main lines per 100 inhabitants. At first blush, therefore, the finding about the positive correlation would appear to defy the law of demand.

A closer inspection of conditions in most countries—and especially those in our sample of 23 Latin American countries—reveals, however, that a positive correlation is indeed an expected outcome. Main lines per 100 inhabitants is *not* a measure of *total* demand for basic service, but rather only a measure of *met* demand, i.e., the portion of total demand that has actually been satisfied at a given point in time. Viewed differently, met demand is the level of demand that can be served under current conditions of supply. If supply constraints prevent the provision of service to all individuals or households that have requested it, then really a met demand variable like main lines per 100 inhabitants is a measure of actual current supply at

[49] *Op cit.*, ref. 3.

prevailing prices. Under these circumstances, total demand exceeds met demand—i.e., actual supply—and the supply constraint is binding because the prevailing service price is too *low*, not because it is too *high*. Therefore, low penetration for basic service in these countries is not a problem of unaffordably high prices, but rather of prices that are too low to induce service providers to meet the level of demand that is being expressed in the market.

If this conjecture is true, then a testable hypothesis and a policy implication should flow from it. First, we should be able to test that the supply constraint is relieved (and the level of unmet demand relative to the level of met demand is reduced) as the price of basic service rises. Second, if that hypothesis is confirmed, then the conventional wisdom of pricing basic service—at least to residential consumers—below cost in order to harness positive network externalities and encourage progress toward universal service would be called into question. From a public policy standpoint, it would then be important to give more credence to price-induced supply constraints as a possible cause of low penetration for basic service than to other demand-side considerations.[50]

A. Previous work on shortages and excess demand

The notion that low penetration rates for basic services is primarily the result of supply, rather than demand, constraints is not new and our work is a contribution to the existing literature. Previous work by the World Bank indicates that with proper pricing policies— tariff rebalancing that more closely aligns prices with underlying costs—telecommunications investments may be expected to yield rates of return between 13 and 25 percent.[51] The World Bank has called into the question the policy of stimulating residential consumption through lower prices in developing countries where demand typically exceeds supply.[52]

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[50] As we noted earlier, even casual empiricism seems to confirm this possibility in a country like Brazil where individuals make large lump sum payments simply to queue for telecommunications services and a thriving resale (black) market for those services exists.

[51] See *op. cit.*, 11.

[52] *Ibid.*, at 277.

Another body of work relevant to the present paper pertains to shortages and excess demand in socialist and state-dominated economies.[53] This literature explains why shortages were a persistent feature of socialist economies and sheds light on the effects of subsidies on micro-level performance.[54]

B. Excess demand model

As in previous works cited, we hypothesize here that low actual penetration and significant and persistent levels of unmet demand for basic service are the direct result of monthly recurring prices for access to basic service that are too low, perhaps even below incremental cost. In the absence of cost data, it is impossible to verify directly whether basic service prices—particularly to residential consumers—are indeed below cost. However, we conjecture that indirect evidence may be available by testing the relationship between those prices and the level of *excess* or unmet demand over time. Stated differently, countries that have rebalanced their tariffs and allowed residential basic service prices to increase gradually should have succeeded relatively more at relieving their supply constraints—i.e., undertaking network expansion—and reducing excess demand than countries that have not raised those prices.[55]

For purposes of this study, total expressed demand is the sum of met demand—i.e., the level of service actually supplied at prevailing prices—and unmet demand represented by the

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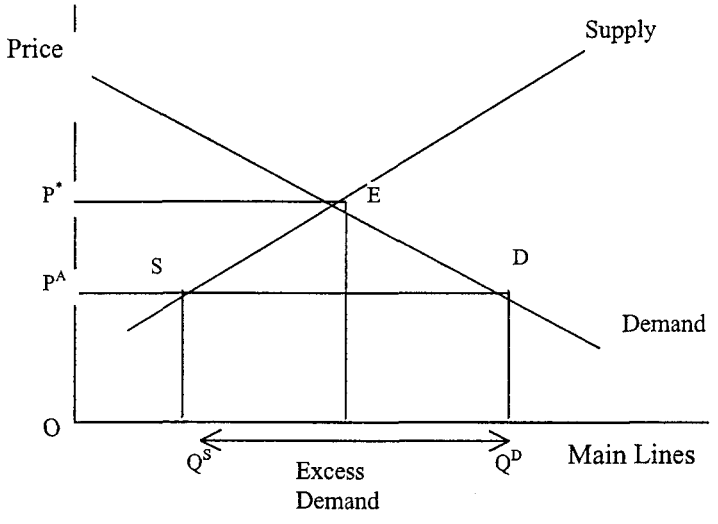
[53] For a review of this literature, see van Brabant, J.M., Socialist Economics: The Disequilibrium School and the Shortage Economy. *Journal of Economic Perspectives*, 1990, 4:157-175.

[54] Kornai, J., *The Socialist System: The Political Economy of Communism*. Princeton University Press, 1992. Kornai develops the concept of the soft budget constraint whereby a firm's expectation that losses will be made up from other sources in the economy or that "profits" will be diverted to other firms negatively affects its efficiency and contributes to systematic shortages in an economy.

[55] Even though we refer to the raising of residential basic service prices by the convenient shorthand "tariff rebalancing," it should be understood that rebalancing entails moving *all* service prices closer to underlying incremental costs. That is, under comprehensive rebalancing both below-cost prices should rise and above-cost prices should fall. In this study, we focus exclusively on the more sensitive issue of how *residential* basic service prices have moved. We assume that *business* basic service prices have always been compensatory (i.e., at or above cost) and have not contributed to the problem of excess demand to anywhere near the same degree that low residential service prices may have. It should be noted that the count of main lines includes *both* business and residential lines in service. We assume, however, that the count of excess demand—wait list for service—comprises mainly, if not only, residential lines.

number of lines that have been demanded but are still waiting to be served at prevailing prices. This can be understood by reference to Figure 1. In Figure 1, the intersection of the supply and demand curves for main lines (at E) depicts the point of equilibrium: supply equals demand at a price of P^*. However, if for whatever reason, actual price were set at P^A, actual expressed demand (Q^D) would exceed demand actual supply (Q^S) by the distance SD (or the span of the double-arrowed line under the horizontal axis). Met demand would be the distance OQ^S. As Figure 1 shows, raising the price from P^A in the direction of P^* would both expand supply and reduce total demand and, thus, shrink excess demand—causing unmet demand as a percentage of total demand to fall. In this supply-constrained situation, the price is not too *high* to discourage demand; suppression of demand cannot happen until the actual price exceeds the equilibrium price under current market conditions. Of course, as income growth and a greater taste for telecommunications shifts the demand curve itself to the right and more efficient technologies and delivery systems also move the supply curve to the right, the equilibrium level of service may itself rise. However, without more precise knowledge of how much supply and demand would both shift, it is difficult to predict from Figure 1 alone what would happen to the level of the equilibrium price and the relative levels of met demand and unmet demand—if any.

Figure 1. Graphical view of excess demand



Given that excess demand is the gap between total demand and supply, any attempt to model excess demand in a reduced form specification would necessarily imply that excess demand is a function of all variables that are expected to influence both total demand and supply. Economic theory suggests that demand is a function of own-price, prices of substitutes and complements, income, and other sometimes unobservable characteristics like taste, consumer knowledge, and demographics. Similarly, supply is a function of the offer price, level and type of supply technology, and supply conditions like government and institutional constraints—e.g., constraints on competition, privatization, and pricing based on public policy goals. Therefore, excess demand should be, in theory, a function of some—if not all—of all these drivers of supply and demand.

C. Key variables

To test our hypothesis, we measure the excess demand variable by the wait list for basic service as a percent of total demand—i.e., main lines in service *plus* the wait list. By construction, this variable lies in the range from zero to one. The disappearance of excess demand would be signified in this formulation by the percentage measure going to zero.

Our tariff rebalancing variable measures how close the monthly price of basic service to residential consumers is to the average residential price for those countries that have rebalanced tariffs and moved their residential prices to more closely approximate equilibrium or compensatory prices. To construct the tariff rebalancing variable, our point of departure is the observation that in many, though not all, of the 23 Latin American countries in our sample, the price of basic service to residential consumers has tended to rise through the 1990s and, in some instances, level off. This trend is best displayed for countries that have privatized—though not all at the same time—namely, Mexico, Peru, and Venezuela. Other countries of interest are Argentina and Chile. In Argentina, the inflation and exchange rate-adjusted monthly price for residential basic service has actually *fallen* through the 1990s; however, that price has stabilized of late at the presumed equilibrium level. In Chile, the price of residential basic service has been set to cover long run incremental cost for several years; its price is, hence, arguably cost-based and at the equilibrium level.

Tariff rebalancing—moving the price of residential basic service toward cost—is not always associated with, and not necessarily a function of, privatization. Other countries (including Costa Rica, Ecuador, and Uruguay) that have not privatized have also displayed a trend toward higher prices. However, to the extent that rate rebalancing may have been a precursor to, or a concomitant element of, a policy of privatization, we believe that the five countries listed above provide the basis for constructing at least a *baseline* average price for residential basic service by which pricing trends in the other 18 countries may be measured.[56]

Based on this reasoning, we define a tariff rebalancing variable for our study in two steps. First, we compute an average price for residential basic service for the above mentioned five countries in 1995, the last year of our sample. We choose the last year because of the observed trend of prices in these countries to stabilize around their 1995 levels. This average or baseline price is calculated as US $10.64 per residential main line. Second, we measure the deviation of the price of residential basic service from this baseline price in *every* country in our sample for *every* year spanned by our sample.

Two alternate, but equivalent, measures are possible: (1) the ratio of that price for any given country in any given year to the baseline price and (2) the percent deviation of that price for any given country in any given year from the baseline price.[57]

D. Model specification

To test our hypothesis that the wait list percentage—excess demand—is reduced as residential basic service prices approach the baseline average price, i.e., tariffs are rebalanced—we specify a variant of the econometric model in Equation 1.

$$(2) \quad z_{it} = \alpha + \beta' x_{it} + \delta' d_{it} + v_i + \varepsilon_{it}$$

[56] This exercise is complicated by serious data limitations mostly in the form of the unavailability of price data in the countries of the region for every year in the 10-year period studied. These gaps in the data mean that price trends in only a subset of the 23 countries can be reliably assessed and that the data panels constructed for those countries are necessarily unbalanced.

[57] Where the ratio exceeds (falls below) one, the percent deviation is positive (negative).

We retain the panel data specification but do not first take the logarithmic transform of the dependent variable z_{it} which, in this case, is a ratio variable that lies in the range from zero to one.[58]

The exogenous variables employed for this regression reflect the mix of price and non-price variables that, as we discussed earlier, are usually considered drivers of demand and supply. Specifically, non-price variables employed here include:

Demand side: GDP per capita (current and lagged)

Supply side: percent of main lines served by digital switches and lagged investment per line (both measures of technology)

Unlike the model used to test for the effects of privatization on network expansion and technical efficiency, in the present model we use only a single price variable, namely, the tariff rebalancing variable as defined above.[59] Because of the manner in which it is constructed, this variable makes it unnecessary to separately specify the average monthly residential basic service price as an exogenous variable. The average monthly business basic service price is not considered because that price is generally considered to be *above* cost and the wait list is believed to include very few (if any) business consumers. The one-time charges for connection to the network are considered unlikely to have any significance for the wait percentage in a *supply*-constrained environment and are, hence, omitted. The peak-hour price of a 3-minute call is omitted for the same reason. Finally, as before, we use a dummy variable to account for the effects of privatization.

We hypothesize that the relationship between the dependent variable and each of the exogenous variables—in particular, the tariff rebalancing variable—will be negative signifying

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[58] Although our dependent variable is bounded by zero and one, it is *not* a binary variable that only takes on discrete values. Instead, that variable is continuous on the interval between zero and one for the entire population.

[59] As noted previously, our tariff rebalancing variable was created by dividing residential monthly prices by US $10.64. Dividing a variable by a constant does not affect the significance of a regression, it merely alters the magnitude of the coefficient for that variable. For our purposes, dividing by US $10.64 permits us to measure in ratio form the *relative difference* between each country's price and prices that are more reflective of underlying costs.

that increments to any of the exogenous variables will cause the wait list percentage to be reduced. We also expect privatization to have a negative effect on the wait list percentage. By including privatization we are testing whether, after controlling for tariff rebalancing, there are still concrete efficiency gains from privatization.

E. Model results

We estimate the model in Equation 2 by FGLS with heteroscedasticity and country-specific serial correlation correction.[60] The estimation routine we use takes account of the unbalanced nature of the panel on account of missing data.[61] Table 6 reports the regression results from the best-fit model (from which all exogenous variables with insignificant coefficients are dropped).[62] The new variables in Table 6 are MLDig (the percent of main lines served by digital switches) and tariff rebalancing (the ratio of residential basic service price to the average baseline "efficient" price).

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[60] The Bartlett M test confirmed the presence of heteroscedasticity in the regression. The computed M statistic (with a χ^2 distribution) had a value of 157.8 which, at 22 degrees of freedom, was highly statistically significant at conventional levels of significance.

[61] Missing data in panels do not cause biased estimates if they are missing at random and the probability of those data being missing is independent of the observed or missing responses (of the dependent variable). See Jones, R.H., *Longitudinal Data with Serial Correlation: A State-Space Approach*, New York: Chapman and Hall, 1993, p.21.

[62] Other model estimates were obtained by use of GLS without correction for heteroscedasticity or serial correlation, the basic random effects model, and robust estimation. The reported model remained superior with the smallest standard errors for the coefficient estimates (efficiency) and highest log likelihood values (goodness of fit). Likelihood ratio tests were also used to establish significant improvements in fit from dropping exogenous variables with insignificant coefficients.

Table 6: Regression results: effects on wait list percentage (excess demand), feasible generalized least squares, (t-statistics in parentheses for coefficient estimates).[63]

Independent Variable	Dependent Variable: Wait list percentage
Pvtmaj	-0.037***
	(-1.736)
Rebalancing	-0.068*
	(-4.343)
MLDig	-0.001*
	(-4.065)
Constant	0.324*
	(14.223)
N (no. of obs.)	71
Log likelihood	195.25
χ^2 statistic	67.83*
Degrees of freedom	(3)

* Statistically significant at 1% level, ** at 5% level, and *** at 10% level.

The wait list percentage—our measure of excess demand—appears to respond most strongly to the tariff rebalancing variable (as was hypothesized in this study) and the measure of technology embodied in the percent of main lines served by digital switches. The coefficients of both variables are highly statistically significant. The effect of privatization is somewhat less statistically significant (with a probability value of 0.083) but would pass the significance test at the 10 percent level.

[63] As noted previously, our excess demand variable (the dependent variable) varies continuously on the interval [0,1]. The sample with which we have estimated the model does *not* contain data that are, in some manner, censored as would be the case if only values above or below a certain threshold were observed. Therefore, being neither binary and discrete nor censored, it is unnecessary to use estimation techniques that are suited to limited dependent variables—such as logit, probit or tobit models. However, purely for comparison, we also estimated a tobit model for equation 2, with "censoring" assumed at values 0 and 1. Our estimates for the coefficients of privatization, rebalancing, and technology variables (with t-statistics in parentheses) were: -0.095 (-8.740), -0.017 (-1.874) and –0.001 (-4.989), respectively. While these results appear to place a higher weight on privatization but less so on rebalancing, we believe, for reasons mentioned above, that it is more appropriate to estimate equation 2 using FGLS than a tobit model. Predicted values for our dependent variable from the two sets of estimates were relatively similar, with a correlation between them of approximately 0.8.

While all of the variables reported in Table 6 have coefficients with the expected signs,[64] their magnitudes of response are harder to judge. The coefficients measure the impact of each variable on the wait list as a percent of total demand (i.e., wait list plus lines in service). For example, our estimates indicate that privatization reduces waits—as a percent of total demand—by 3.7 percentage points. In order to make this figure more meaningful, however, we calculate the reduction due to privatization and tariff rebalancing in the actual *number* of lines waiting to be served. For tariff rebalancing, we first measure the impact on the dependent variable of a 10 percent increase in price from the average residential price in Latin America of US $7.28. We then use the change in the dependent variable to calculate just how much the wait list would be reduced by tariff rebalancing.[65] According to our calculations, a 10 percent increase in the average residential price leads to a 4.1 percent reduction in the average number of lines on the wait list. Using the same methodology, privatization leads to a 28 percent reduction in the average number of lines on the wait list.

While the magnitudes of the impacts appear reasonable, more and independent confirmation of these results would be helpful. These results provide two important findings: (1) in supply-constrained environments, abandoning the policy of below-cost pricing of residential basic service may actually relieve the supply bottleneck and *increase* the proportion of met demand and the penetration rate for basic services,[66] and (2) controlling for tariff rebalancing, privatization leads to reductions in unmet demand indicating that there are concrete efficiency gains resulting from privatization.

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[64] Using the estimated coefficients in Table 6, we generated predicted values for the dependent variable and found that none of them was below zero or above one, confirming that the model did not generate predicted values that were outside the range within which all values for the wait list percentage were contained in the population.

[65] The change in the dependent variable, i.e., the change in wait list percentage involves four items: the number of lines on the wait list in the *previous* year, the total demand in the *previous* year, the total demand in the *present* year (all of which are known), and the number of lines on the wait list in the *present* year (which has to be solved for). Thus, evaluating this relationship at the average level for all items (e.g., average number of lines on the wait list in Latin America in the previous year is approximately 218,000), we calculate the average number of lines on the wait list in the present year.

[66] This, of course, assumes that governments do not institute formal or informal mechanisms for providing subsidies that support the pricing of residential basic service below cost.

V. CONCLUSIONS

Privatization of telecommunications in several countries of Latin America during the 1980s and 90s altered significantly the prospects for the development of the all-important telecommunications sector in that part of the world. Several events happened concurrently or almost concurrently to further shake up the status quo in telecommunications and improve performance, prominent among them being the rebalancing of tariffs for basic service.

The purpose of this paper has been to sort out the effects of these events on some important measures of telecommunications network participation by the inhabitants of the Latin American region. The number of main lines in service is often used as an indicator of penetration (market demand). Building on previous work that showed a positive correlation between that variable and the level of residential basic service prices, we made the case that such a positive correlation means that the number of main lines in service at any point is not *total* demand but rather only the level of *met* demand in a supply-constrained environment. That is, network expansion in the countries of the region is more likely to be driven by an *increase* in the price of residential basic service—from below cost levels—than by any decrease in it. When prices are below efficient levels—e.g., below incremental cost—demand outstrips supply and creates a condition of excess demand that can only be relieved by raising those prices up to efficient levels. Therefore, the main lines in service in the presence of inefficiently low prices represent only the amount of supply forthcoming, which is typically insufficient to meet all of the demand at those prices. That is, the main lines in service is a measure of met demand or, equivalently, actual supply in an environment in which supply is constrained by inefficiently low prices.

This paper extended previous work in three directions. First, it tested the robustness of results obtained earlier from a worldwide sample of data regarding the impact of privatization on network expansion and technical efficiency. Using a sample of 23 countries in Latin America for the 10-year period between 1986 and 1995, we successfully replicated the finding from previous work that privatization has a significant positive impact on both network expansion and technical efficiency.

Second, we explored qualitatively some of the factors that may have prompted so many Latin American countries—a disproportionate share of countries worldwide—to privatize their telecommunications sectors by transferring at least fifty percent of telecommunications assets into private hands. Those countries may have seen positive efficiency gains from private ownership and a way out of the trap of low penetration. As previous work and follow-up work in this study showed, there is definitely evidence from the region that privatization altered incentives sufficiently to relieve the supply bottlenecks from the days of public ownership and increased the supply of main lines.

Third, we tested the hypothesis that low penetration rates in Latin America arise from service prices that are too low. We tested this hypothesis with an econometric model and concluded that tariff rebalancing, privatization, and network technology upgrades all have the effect of reducing the proportion of unmet demand for residential basic service in a country. Specifically, a 10 percent increase in monthly subscription charges (relative to the average residential price in Latin America) leads to a reduction in unmet demand of approximately 4.1 percent. And, most importantly, even after controlling for tariff rebalancing, privatization appears to reduce unmet demand by approximately 28 percent.

The public policy implications of this study are twofold. First, privatization generates concrete efficiency gains that are over and beyond those generated by tariff rebalancing. Second, instead of relying on artificially low prices to trigger greater use of the telecommunications network—on the theory that low prices enable consumers to harness network externalities and increase penetration rates—it is more pragmatic to allow telecommunications operators, especially in countries that have privatized, to recover their costs by charging compensatory prices. A country may be able to generate "high" levels of demand by a deliberate policy of maintaining prices below cost or at low levels, but—as long as it does not provide subsidy support for such prices—it is only by increasing actual supply that the country can actually expect to see service delivered to consumers. Therefore, while privatization clearly favors supply-led growth and network expansion, the all-important role of

tariff rebalancing and compensatory pricing cannot be overlooked in sustaining that expansion and reducing unmet demand.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-15)
2004 Competition Report

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-15

Florida Public Service Commission, *Annual Report To The Florida Legislature On The Status Of Competition In The Telecommunications Industry In Florida as of May 31, 2004*, p. 75.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 23
Company/ Alltel
Witness: David C. Blessing (DCB-15)
Date: 12-01-05

ANNUAL REPORT TO THE FLORIDA LEGISLATURE

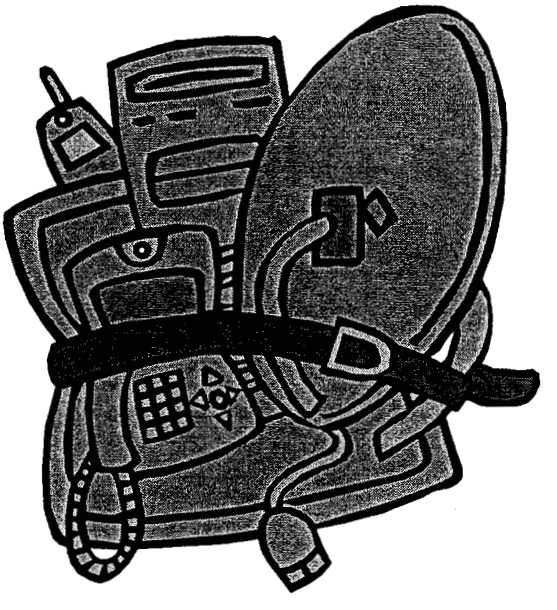
ON THE STATUS OF

COMPETITION

IN THE

TELECOMMUNICATIONS INDUSTRY IN FLORIDA

AS OF MAY 31, 2004



FLORIDA PUBLIC SERVICE COMMISSION

This report was prepared by the Florida Public Service Commission's
Office of Market Monitoring and Strategic Analysis

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LIST OF ACRONYMS

ALEC	Alternative Local Exchange Company
BEBR	Bureau of Economic and Business Research
BOC	Bell Operating Company
CLEC	Competitive Local Exchange Company
Commission	Florida Public Service Commission
CTIA	Cellular Telecommunications & Internet Association
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Line Access Multiplexer
FCC	Federal Communications Commission
IP	Internet Protocol
ISP	Internet Service Provider
ILEC	Incumbent Local Exchange Carrier
IXC	Interexchange Carrier
Joint Board	Federal-State Joint Board
LATA	Local Access and Transport Area
MSO	Multiple System Operator
NANPA	North American Numbering Plan Administrator
NCTA	National Cable and Telecommunications Association
NXX	End Office Code
NPA	Area Code
OPC	Office of Public Counsel
OSS	Operational Support Systems
PSTN	Public Switched Telecommunications Network
RBOC	Regional Bell Operating Company
SLC	Subscriber Line Charge
SMSA	Standard Metropolitan Statistical Area
TELRIC	Total Element Long-Run Incremental Cost
TRO	Triennial Review Order
UNE	Unbundled Network Element
UNE-P	Unbundled Network Element - Platform
USOA	Uniform System of Accounts
UWB	Ultra Wideband
VoIP	Voice over Internet Protocol

EXECUTIVE SUMMARY

This report is pursuant to the statutory requirements set forth in Section 364.386 and Section 364.161(4), Florida Statutes.

Chapter I: Introduction and Background

In addition to providing the annual overview and analysis of local telecommunications competition in Florida, this year's report includes a closer examination of the trends in the access line market.[1]

Chapter II: An Introduction to the Changing Competitive Landscape

Chapter II provides context to the report by discussing the evolving competitive landscape to which providers of communications services – including incumbents and competitors – are subject. The chapter discusses, among other subjects, the emergence of advanced communications platforms and the impact of competition on providers of wireline telecommunications services.

Chapter III: Status of Local Wireline Telecommunications Competition in Florida

Section A of Chapter III discusses Incumbent Local Exchange Carrier (ILEC) and Competitive Local Exchange Company (CLEC) market share in the local wireline telecommunications sector in Florida. As an overview, responses from ILECs and CLECs to the Florida Public Service Commission (Commission) data requests indicate that as of May 31, 2004, in Florida:

- CLECs have increased their overall market share from 16% in 2003 to 17% in 2004.
- The CLECs' share of the business market has remained stable, 30% in both 2004 and 2003.
- The CLECs' share of the residential market has increased from 9% in 2003 to 10% in 2004.

[1] With this report, a change was made in the reporting period to provide additional time for companies to respond to the data request and for Commission staff to analyze the data. The data contained herein represents a snapshot of Competitive Local Exchange Company (CLEC) activities on May 31, 2004, with the report year running from July 1, 2003, to May 31, 2004 (as opposed to June 30th as in prior reports).

- Total local exchange access lines in Florida continue to decline – even as Florida's population continues to grow.[2]

Section B discusses changing market trends in this sector. Section B also discusses the potential impacts of recent regulatory changes on the market for local wireline telecommunications.

Chapter IV: Advanced Communications Landscape

Innovation, competition, and regulatory change are rapidly changing the communications landscape of the country generally, and in Florida specifically. Various platforms are competing for mass market and business customers. Innovation and competition are resulting in enhanced service offerings and falling prices for consumers. ILECs, CLECs, and Interexchange Carriers (IXCs) are certain to face increased competition from wireless, cable telephony, and VoIP. Chapter IV discusses the subjects of intermodal competition and broadband.

Chapter V: Discussion of Items Required by Chapter 364, Florida Statutes

Chapter V sets forth the Commission's specific findings required pursuant to Section 364.386(1), Florida Statutes. These findings are supported by the information and data contained in this report.

Furthermore, pursuant to Section 363.161(4), Florida Statutes, Chapter V and Appendix D address CLEC complaints filed against ILECs. Notably, the number of complaints continued to decline from 81 in the 2002 report to 58 in 2003, and to 41 in this year's 11-month report period. Also, the Commission received 254 negotiated agreements and 10 requests for arbitration between July 1, 2003, and May 31, 2004. Since June 1996, the Commission has reviewed and approved 2,871 negotiated interconnection agreements.

Chapter VI: State Activities

Chapter VI discusses select state activities in which the Commission has been engaged as part of its ongoing efforts to promote wireline telecommunications competition in Florida.

In implementing the Tele-Competition Innovation and Infrastructure Enhancement Act of 2003, the Commission found, based on the record before it, that intrastate access rates currently provide support for basic local telecommunications services. The Commission further found that the existence of such support prevents the creation of a more attractive competitive local exchange market because it keeps local rates at artificially low levels. This results in an artificial barrier for market entry by efficient competitors.

[2] This decline in local exchange access lines does not result solely from telephone subscribers switching to alternative voice providers. The decline reflects a combination of voice lines being replaced by data connections (including residential broadband connections), as well as subscribers choosing alternatives to local exchange access for their voice communications.

The Commission also:

- Concluded a summary docket on collocation,
- Implemented the requirements of the Federal Communications Commission's (FCC) Triennial Review Order (TRO) dockets,
- Continues its work in performance metrics relating to ILECs,
- Oversaw the return of $4.5 million from Sprint and BellSouth, under Service Guarantee Programs, to their customers for missing service installations and out of service repair,
- Continues its work in the Florida Telecommunications Competitive Interests Forum, and
- Continues to work to increase Lifeline awareness and subscribership among eligible Floridians.

Chapter VII: Federal Activities

The Commission has continued to monitor and, as necessary, provide comments, on key federal issues such as:

- The Triennial Review Order and its subsequent partial vacatur and remand,
- The regulatory framework for broadband wireline access to the Internet,
- The regulatory framework for IP-Enabled Services (or Voice over Internet Protocol),
- Intercarrier compensation,
- Universal service,
- Reporting requirements for ILECs,
- Review of TELRIC pricing rules for UNEs, and
- Local number portability and
- NASUCA Truth in Billing

CHAPTER I: INTRODUCTION AND BACKGROUND

Chapter 364, Florida Statutes, sets forth the guiding principles by which the Commission regulates wireline telecommunications companies. Regulation is primarily focused on incumbent local exchange companies (ILECs). Competitive local exchange companies (CLECs) and intrastate interexchange carriers (IXCs) are subject to minimal regulation. The Commission does *not* regulate wireless service[3], Voice over Internet Protocol service (VoIP)[4], cable modem service, or satellite service.

Chapter 364 requires the Commission to prepare and deliver a report on "the status of competition in the telecommunications industry" to the Governor and Legislature by December 1 of each year. Specifically, Section 364.386, Florida Statutes, requires that the report address the following issues:

- The overall impact of local exchange telecommunications competition on the continued availability of universal service.
- The ability of competitive providers to make functionally equivalent local exchange services available to both residential and business customers at competitive rates, terms, and conditions.
- The ability of customers to obtain functionally equivalent services at comparable rates, terms, and conditions.
- The overall impact of price regulation on the maintenance of reasonably affordable and reliable high-quality telecommunications services.
- What additional services, if any, should be included in the definition of basic local telecommunications services, taking into account advances in technology and market demand.
- Any other information and recommendations which may be in the public interest.

A 1997 amendment to Section 364.161(4), Florida Statutes, requires the inclusion of a summary of all complaints filed by CLECs against ILECs.

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[3] Federal law preempts states from regulating rates of wireless providers unless a state petitions the FCC and demonstrates the market is failing to protect consumers from unjust prices or wireless is a substantial substitute for wireline. 47 U.S.C. §§ 332(c)(3)(A). Federal law does not prohibit states from regulating "other terms and conditions of service." Florida law exempts wireless from Commission jurisdiction (Section 364.02(13)(c)). As set forth more thoroughly in Chapter II, Florida's deregulatory approach to wireless has resulted in the development of a highly robust, competitive wireless market in the state.

[4] Certain VoIP providers have *voluntarily* pursued and obtained CLEC certificates. VoIP generally is not regulated by the Commission in accordance with Sections 364.01(3), F.S. (The Legislature further finds that the provision of voice-over-Internet protocol (VoIP) free of unnecessary regulation, regardless of the provider, is in the public interest.) and 364.02(12), F.S. ("Service" is to be construed in its broadest and most inclusive sense. The term "service" does not include voice-over-Internet protocol service for purposes of regulation by the commission. Nothing herein shall affect the rights and obligations of any entity related to the payment of switched network access rates or other intercarrier compensation, if any, related to voice-over-Internet protocol service.)

In prior years, the data presented a snapshot of CLEC activities on June 30, with the report year running from July 1 of the previous year through June 30 of the current year. This year, the snapshot of data is taken on May 31, with the reporting period running from July 1, 2003 through May 31, 2004. This change provided additional time for companies to respond to the data requests and for Commission staff to analyze the data. Beginning with the 2005 report, the report year will run from June 1 of the previous year through May 31 of the current year, with May 31 continuing as the snapshot date.

Prior to discussing the required topics (Chapter V), this report begins with an introduction and overview in Chapter I of the federal Telecommunications Act of 1996 (the 1996 Act) and Chapter 364, Florida Statutes. Chapter I also discusses the approach used in preparing this report, including efforts to streamline the data gathering process and reduce the reporting burden on non-facilities based CLECs.

Chapter II gives context to the rest of the report by discussing the evolving competitive landscape to which providers of wireline telecommunications – including incumbents and competitors – are subject. Chapter II discusses competing communications platforms and the changing nature of competition.

Chapter III provides a detailed analysis of the status of local wireline telecommunications competition in Florida, examining the data by percentage of market share, number of access lines, and by various areas, such as exchange and ILEC territory. Chapter III also discusses some of the potential impacts on the market for local wireline telecommunications of the FCC's Triennial Review Order (TRO) and its subsequent partial vacatur by the D.C. Circuit Court of Appeals (known as the USTA II decision).

Chapter IV discusses how the communications landscape is changing rapidly due to innovation, competition, and regulatory change. Competition for mass market and business customers is resulting in enhanced service offerings and lower prices for consumers. Wireline telecommunications providers, including ILECs, CLECs, and IXCs, are facing increased intermodal competition from wireless, cable, and VoIP providers. Chapter IV also discusses the broadband market.

Chapter V discusses issues required by Chapter 364, Florida Statutes. Chapter VI and Chapter VII contain reviews of key state and federal activities, respectively.

The appendices include tables containing the CLECs providing service in Florida, the exchanges with providers, the percentage of CLEC access lines by exchange, the summary of CLEC complaints, and the list of certificated CLECs as of May 31, 2004. A glossary of telecommunications terms is provided after the appendices.

A. PROVISIONS AND GOALS OF CHAPTER 364, FLORIDA STATUTES, AND THE TELECOMMUNICATIONS ACT OF 1996

1. Chapter 364, Florida Statutes

In 1995, the Florida Legislature amended Chapter 364, Florida Statutes, to provide for competition in the state's telecommunications industry. The Legislature found that "the competitive provision of telecommunications services, including local exchange telecommunications service, is in the public interest and will provide customers with freedom of choice, encourage the introduction of new telecommunications service, encourage technological innovation, and encourage investment in telecommunications infrastructure." The 1995 Florida Act, together with the 1996 Act (federal), spurred the development of a CLEC industry. Since 1995, the communications landscape has evolved dramatically, with wireless, cable telephony, and IP-enabled communications offering many consumers alternatives to plain old telephone service ("POTS").

As of May 31, 2004, 420 CLECs were certificated by the Commission to operate in Florida, down from 432 in 2003. In 2004, 175 CLECs reported offering service, a slight decrease from 179 in 2003.[5] Unlike the ILECs, CLECs are not required to file tariffs for Commission acknowledgment. Instead, each CLEC is only required to file a price list if it offers basic local telecommunications service. In addition, Section 364.337(2), Florida Statutes, states in part, that "[T]he basic local telecommunications service provided by a competitive local exchange telecommunications company must include access to operator services, '911' services, and relay services for the hearing impaired." CLECs must also provide a flat-rate pricing option for basic local telecommunications services; the statute states that "mandatory measured service for basic local telecommunications services shall not be imposed."

2. Federal Telecommunications Act of 1996 (the 1996 Act)

The 1996 Act established a national framework to promote competition in the local telecommunications marketplace. The FCC's Local Competition Order specified that opening the local exchange and exchange access markets to competition was intended to "pave the way for enhanced competition in all telecommunications markets."[6] Additionally, the opening of all telecommunications markets to all providers was expected to blur traditional industry distinctions. As such, not only have CLECs entered the local market, but less traditional providers such as wireless, cable and broadband communications providers have also entered this market using existing or new technologies to compete against traditional wireline providers for a share of the market for voice communications.

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[5] The number of CLECs providing service in 2003 was erroneously reported as 150 in the 2003 Annual Report on Competition. The correct number was 179.

[6] FCC 96-325, CC Docket No. 96-98, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, Paragraph 4.

The 1996 Act established three methods by which CLECs can enter the local exchange market: resale, leasing of unbundled network elements (UNEs), and investing in their own facilities.[7] Because ILECs dominate the last mile of the local network, CLECs must either use the ILEC's local loops, build their own facilities, or enable facilities currently in place (e.g., cable networks) to provide local telephone service. A brief description of each entry strategy provided for in the 1996 Act follows.

Resale

Resale is a method of market entry often used as a starting point for non facilities-based CLECs to gain exposure in the marketplace. Under this method, CLECs are able to purchase at a discount and resell any telecommunications services that ILECs offer to retail customers. Those CLECs that focus on serving customers who have been disconnected by the ILEC or who prefer prepaid service may view resale as a long-term strategy.

Unbundled Network Elements (UNEs)

UNEs are the building blocks of ILEC networks used to provide telecommunications services. This method of entry requires ILECs to unbundle their networks and lease the piece parts or elements to CLECs at rates based on a total element long-run incremental cost (TELRIC) methodology.

Facilities

Facilities-based CLECs are those that have invested in facilities that may consist of loops and/or switching equipment to serve end-users. Frequently, CLECs enter the market using resale or UNE-based services while investing the financial resources necessary to build a telecommunications network that, in whole or in part, allows services to be provided independent of the ILECs. CLECs deploying facilities typically do so to serve the business market. Because of the high costs of deploying facilities, the residential market does not provide sufficient economies of scale to cover the costs of deployment.

According to a recent court decision, the purpose of the 1996 Act "is to stimulate competition – preferably genuine, facilities-based competition."[8] The resale components of the 1996 Act confine a competitor to deriving revenue between resale and retail rates. Resale may not be a viable long-term strategy for many CLECs and may discourage optimal facilities investment. Unbundling connotes an unbundling of existing (static) facilities. Many facility owners believe that there is little or no incentive to invest in upgrades and improvements if they will ultimately be required to unbundle those same upgrades and improvements.

[7] Other policies such as number portability, interconnection, pricing, etc. also facilitate CLECs' entry into this market.

[8] 359 F. 3d 554 (D.C. Cir. 2004) (known as USTA II) , pets. for cert. filed, Nos. 04-12, 04-15, 04-18. June 30, 2004.

Many CLECs serve the residential and small business markets primarily by leasing ILEC unbundled loops, transport and switching (known as UNE-Platform, or UNE-P), and to a much lesser extent, through resale. Other CLECs, such as Florida Digital Network, provide voice service using their own facilities.

While true facilities-based competition in the local wireline telecommunications market is not yet widespread, intermodal and facilities-based competition currently exists in the advanced telecommunications market primarily through cable companies, wireless providers and a handful of wireline providers that mainly target the business market. In the mass-market (residential and small business consumers), competition from wireless and cable companies is growing. In other words, in many markets, consumers may soon be able to choose between multiple platforms offering voice service.

B. METHODOLOGY

As in prior years, the Commission prepared this report based on responses by CLECs and ILECs to data requests. The annually updated data request consists of both quantitative questions (e.g., access line counts) and qualitative questions (e.g., has a company experienced any significant barriers in entering the Florida market). To ensure that the report better reflects the changing nature of the communications industry as a whole, questions on VoIP were added this year. Because the vast majority of VoIP providers would not have received the data request, responses are understandably limited.

The data are only as valid as the quality and completeness of the responses received. As part of our on-going effort to increase efficiency and to reduce the reporting burden where possible, the Commission made several changes to the data gathering process. Staff revised the data requests again this year to streamline them and reduce reporting requirements. Draft versions of the CLEC data request were provided to some of the larger CLECs in order to elicit their feedback. Commission staff then conducted conference calls with these CLECs and revised many of the questions based on CLEC input. In an effort to streamline the data request process, the Word and Excel files comprising the ILEC and CLEC data requests were made available on the Commission's website. This saved time for both the responding companies and the Commission by eliminating the need for companies to individually request Commission staff to provide electronic copies of the data requests. As in previous years, the Commission requested companies to provide their responses on disk, by CD or electronic mail so that Commission staff would not have to manually enter responses into a database.

Commission staff are confident that the data presented and the analyses that follow are reasonably accurate based on the information provided by the ILECs and the reporting CLECS. As in previous years, precise market share calculations are impossible because a number of CLECs failed to respond; however the response rate has been increasing. The 2004 response rate was 85% compared to 80% in 2003. Lack of a 100% response from CLECs may result in understatement of market share; however, this should not materially affect the conclusions reached in this report regarding the data.

CHAPTER II: AN INTRODUCTION TO THE CHANGING COMPETITIVE LANDSCAPE

This Chapter provides an introduction to the rapidly evolving landscape that wireline telecommunications providers – both incumbents and competitors – now face.[9] While much of this report is focused on traditional ILEC versus CLEC competition, policymakers cannot ignore substantial changes in the broader communications market that are unquestionably impacting Florida's local telecommunications market. Fortunately for Florida's consumers, innovation and investment by competitors across platforms is providing an array of new products and services, and price wars among both new and old competitors are breaking out.

Part A discusses the rapid pace of innovation that is occurring in the market. Part B discusses the decline of the traditional telecommunications sector.

A. INNOVATION IN A RAPIDLY CONVERGING MARKET

Convergence of voice, video, and data technologies into multi-faceted product offerings by numerous providers has drastically changed the communications industry. In addition to competition from rival telephone companies, both incumbent and competitive telephone companies now face competition from wireless, VoIP, cable companies, and others. Consider the following:

- "A battle royal between cable and telephone companies for the residential phone market is about to sweep the country....By the end of 2006, more than half of all 110 million or so households in the U.S. will likely have the option of getting phone service from their cable companies. By 2008, cable companies will be selling phone service to 17.5 million subscribers, compared with 2.8 million at the end of 2003, according to an estimate by research firm Yankee Group."[10]

- "In Omaha, Neb., cable giant Cox Communications Inc. has toppled the regional Bell and become the area's largest phone company. Over in New York, Cablevision Systems Corp. has signed up 115,000 phone customers."[11]

- "Over the past four years, the nation's largest phone companies have lost local phone lines by the millions as consumers fled to cellphones and e-mail. Many customers are giving up their second, and even their primary, phone lines. The intrusion by cable

[9] Chapter IV provides an in-depth discussion of the advanced communications landscape, which continues to rapidly evolve, and the technologies that are driving innovation and investment and that are increasing the choices available to consumers.

[10] Grant, Peter. "Here Comes Cable...and it Wants A Big Piece Of The Residential Phone Market." The Wall Street Journal. September 13, 2004. p. R6.

[11] Latour, Almar. "Free for All." The Wall Street Journal. September 13, 2004. p. R1.

companies only made things worse, forcing the Bells to expand into other areas that promise more growth, such as wireless, high-speed Internet and television." [12]

- Email & Instant Messaging continue to be used as substitutes for voice communications. For example, among high-speed Internet users, instant messaging displaced 20% of local calls and email displaced 24% of such calls. Among dial-up Internet users, instant messaging displaced 18% of local calls, and email displaced 23% of local calls.[13]

- EarthLink has announced a new service that will let subscribers make free telephone calls using the Internet.[14]

- "According to Synergy Research Group Inc., Internet phones will account for about a third of the nearly 35 million business lines expected to be added this year, up from 18% last year and less than 4% in 2001."[15]

The following subsections highlight several of the advanced communications technologies that are driving innovation and investment and are spurring this non-traditional, but extremely promising, form of competition in the communications sector.

1. Wireless

In Florida and across the nation, the wireless industry has proven the success of competitive markets that are not overly burdened with costly and unnecessary regulations. Wireless competition is fierce and empowers consumers to make informed choices among numerous options. Approximately 98% of Americans can choose from at least 3 wireless providers, and 83% have a choice of 5 or more wireless carriers.[16] As a result, prices have continually declined (1993 average wireless bill = $61.49, as compared to 2003 average bill = $38.73).[17] In fact, the FCC reported a 13% decrease in the price per minute in 2003.[18] Though

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[12] Latour, Almar. "Free for All." The Wall Street Journal. September 13, 2004. p. R1.

[13] J.D. Power & Associates. "2003 Residential Internet Service Provider Study (August 2003)."

[14] Earthlink Free Online Calling. <http://www.earthlink.net/extras/onlinecalling/>. Accessed November 3, 2004.

[15] Totty, Michael. "Is Now the Time For Net Calling." The Wall Street Journal. September 13, 2004. p. R6.

[16] "Innovation: The Keystone of the Commercial Mobile Wireless Experience." Cellular Telecommunications & Internet Association (CTIA) Presentation to FCC. April 2004. <http://files.ctia.org/pdf/CMRSINNOVATIONmar04.pdf>.

[17] "The Wireless Industry and Its Contributions." Cellular Telecommunications & Internet Association (CTIA) Presentation to FCC Wireline Competition Bureau. September 2004. <http://files.ctia.org/ppt/WCB_Wireless_Contributions_Presentation.ppt>.

[18] "Ninth Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services." FCC. WT Docket No. 04-111. September 28, 2004. Page A-11.

wireless prices are decreasing, the wireless industry continues to invest heavily in its network and in innovative new products and services. These trends will be discussed in the following section, along with a focus on Florida's market-based approach regarding the wireless sector and a glance at a few initiatives by the wireless industry to address consumer needs despite the lack of regulatory mandates.

a. Florida's Market-Based Approach to Wireless

In Florida, the Legislature has taken a "hands-off" approach to wireless services generally, allowing the industry to flourish and the state's consumers to benefit from the competition. Commercial mobile radio service (CMRS) (i.e., wireless) providers are expressly excluded from the statute that confers jurisdiction to the Commission over "telecommunications companies."[19] Due to this wireless exemption, the Commission does not make eligible telecommunications carrier (ETC) designations for purposes of universal service funding for Florida CMRS providers; instead, the FCC determines eligibility.[20] Florida CMRS providers do, however, remain expressly liable for certain taxes prescribed by statute and any universal service or other fees pursuant to statute.

Florida's approach to the wireless industry has been extremely successful. Florida's consumers today enjoy the benefits of a vigorously competitive market for cellular service. Approximately 23 wireless competitors serve the state, including all six nationwide providers. Some 77% of Floridians have a choice of five or more wireless carriers. Statewide subscribership is high at over 10 million.[21] With the express statutory exemption, regulatory risk is minimized, and carriers are demonstrably more willing to invest in the state. Finally, consumer welfare is maximized. Florida's consumers benefit from an array of services, offered at competitive prices, by numerous and fiercely competitive providers.

b. Wireless Investment & Innovation

The substantial investment and constant innovation by the wireless industry suggest the effectiveness of deregulatory approaches (like Florida's) with respect to such competitive markets. Even as prices decline, wireless carriers have invested approximately $146 billion

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[19] Under Section 364.01(1), Florida Statutes, the Commission has jurisdiction over "telecommunications companies," and Section 364.02(13)(c), Florida Statutes, excludes CMRS providers from the statutory definition of a "telecommunications company."

[20] Designation as an ETC allows a company to receive universal service support. The 1996 Act places responsibility on the states to determine which carriers are qualified for universal service funding. However, in cases where the state, like Florida, does not have jurisdiction to make the ETC designation, the FCC will determine eligibility according to 47 U.S.C. § 214(e)(6).

[21] FCC Report on Local Competition: Status as of December 31, 2003. Released June 2004.

nationwide, including over $19 billion in 2003 alone.[22] This investment includes a 17% increase in cell sites in service from year-end 2002 to year-end 2003,[23] which expands coverage and improves overall quality of service.

Wireless carriers are also constantly innovating in order to either meet competitors' offerings or to gain a competitive edge with new features. CMRS-related patents in the United States have increased from 876 in 1996 to a record high of 2,390 in 2003 (not including unlicensed wireless, Wi-Fi, or Ultra Wideband (UWB) patents, which are also on the rise).[24] Innovations such as walkie-talkie functionality, digital camera additions, and voice dialing have become more of a standard feature due to consumer demand and have increased consumer value. While new features are being added, phones are continually decreasing in size, and calling areas are expanding.[25] Carriers are rapidly adding digital services, such as e-mail, calendar, Internet access, and text message functionality, to their cell phones and plans. By year-end 2003, the wireless industry had achieved 140 million digital subscribers.[26] Wireless carriers are also increasingly providing wireless broadband functionality to consumers – directly competing with the popular cable modem and DSL broadband options that together account for the vast majority of the broadband market. These and other substantial strides by the wireless industry – and the resulting benefits for consumers – are occurring in a relatively unregulated market.

c. Wireless Voluntary Efforts

Competitive markets can and do respond to the needs and demands of consumers. In fact, in industries that are as fiercely competitive as the wireless industry, a focus on consumer satisfaction is critical to survival. The following subsections provide a few examples of the wireless industry's voluntary efforts to address consumer issues. These show that market forces work in competitive arenas.

i. Voluntary Consumer Code

In September 2003, CTIA unveiled its "Voluntary Consumer Code," which is designed to encourage greater wireless carrier communication and disclosure to consumers on a voluntary

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[22] "The Wireless Industry and Its Contributions." Cellular Telecommunications & Internet Association (CTIA) Presentation to FCC Wireline Competition Bureau. September 2004. <http://files.ctia.org/ppt/WCB_Wireless_Contributions_Presentation.ppt>.

[23] "CTIA's Semi-Annual Wireless Industry Survey Results." CTIA. 2004.

[24] "Innovation: The Keystone of the Commercial Mobile Wireless Experience." Cellular Telecommunications & Internet Association (CTIA) Presentation to FCC. April 2004. <http://files.ctia.org/pdf/CMRSINNOVATIONmar04.pdf>.

[25] Luke, Robert. "Cingular: From Elite to Everyman." The Atlanta Journal-Constitution. October 4, 2004.

[26] "Innovation: The Keystone of the Commercial Mobile Wireless Experience." Cellular Telecommunications & Internet Association (CTIA) Presentation to FCC. April 2004. <http://files.ctia.org/pdf/CMRSINNOVATIONmar04.pdf>.

basis.[27] Among other aspects, "the Code" requires companies to disclose key rates and terms of service,[28] requires various disclosures in product advertising, and calls for trial usage periods, better billing of taxes and fees, and stronger privacy policies. The Code also includes a promise to work with state agencies like the Commission to better coordinate responses and resolve consumer complaints, even though wireless companies are not subject to Commission jurisdiction.

Ultimately, either wireless providers will respond effectively to the concerns of their customers, or they will suffer a quick demise as customers migrate to one of their numerous competitors. This basic reality serves to police this industry without the need for the heavy hand of regulation seen in other venues. In competitive markets such as this one, voluntary disclosure of terms and conditions of service is far preferable to regulation of those terms and conditions. Such regulation imposes often-substantial transaction costs on carriers, and these transaction costs are, directly or indirectly, passed on to consumers. The bottom line is that, in a competitive market like wireless, the market will respond to consumer needs better – and at less cost – than will simply more regulation.

ii. Voluntary Anti-SPAM Efforts

The wireless industry has been proactive in stamping out text-messaging spam. On March 11, 2004, the FCC considered a Notice of Proposed Rulemaking (NPRM) and Further NPRM to protect consumers from unwanted mobile service commercial messages under the CAN-SPAM Act. Congress directed the FCC to take into consideration the "unique technical aspects" of wireless devices, including their small screen size and limited keyboards, when formulating such rules. In committing to working with the FCC to address this issue, Steve Largent, the President & CEO of CTIA, stated, "CAN-SPAM not only limits unwanted messages, but also governs all types of commercial e-mail. Mobile devices, with their smaller screens, limited keyboards and finite message lengths present a special challenge for commercial messages, which must include such extras as an easy way to opt-out."

iii. Voluntary Consumer Complaint Assistance

Even prior to the Voluntary Consumer Code, many wireless carriers worked with states (regardless of state jurisdiction over wireless providers) to quickly resolve wireless complaints received by state commissions and other relevant state agencies. For example, although the Commission has no jurisdiction over wireless providers, several wireless carriers provide the

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[27] See CTIA's website at http://www.ctia.org/wireless_consumers/consumer_code/index.cfm for a list of carriers that have "fully implemented and adopted the Consumer Code."

[28] Many wireless carriers provide consumers with detailed information on their websites regarding billing, terms and conditions of service, and "frequently asked questions," to better assist consumers in making informed decisions. As but one example, Cingular Wireless' website at: www.cingular.com includes helpful links such as "plan terms," "return policy," "common questions," and "understanding your bill," presumably aimed at providing consumers with information they seek.

Commission with phone numbers of individuals within their companies that will be able to provide more direct assistance to the consumer.

2. Voice over Internet Protocol (VoIP)

Florida leads the nation in recognizing the potential benefits of voice over Internet protocol (VoIP) technologies for consumers. Consistent with the goal of promoting competition and in order to allow the technology to flourish in the state, the Florida Legislature took the proactive step of declaring VoIP "free of unnecessary regulation" and exempting it from the statutory definition of "service" for purposes of Commission regulation. This model has already spurred several companies, such as Vonage, AT&T, and Bright House Networks, to offer VoIP service – a technology that makes use of a broadband connection to deliver voice service, at least in part, over the Internet – in Florida.

As Forbes recently reported:

> Unlike the regulated monopolies of old, VoIP service is inherently competitive--even hyper-competitive. A customer's VoIP phone company (such as AT&T or Vonage) no longer needs to own the physical wire into their customers' homes. Instead, the calls hitch a free ride on customers' existing broadband Internet connections. The result: Instead of one phone company having a lock on a consumer, an unlimited number of VoIP companies like Vonage and AT&T can compete for a customer's business.[29]

VoIP service providers, an ever-growing group of diverse companies, are driving innovation. AT&T, for instance, offers innovative call-conferencing features as well as a "do not disturb" feature to block unwelcome calls.[30] Vonage and Boingo Wireless recently announced their partnership to make voice over Wi-Fi services available to customers, specifically targeting the business traveler by providing greater mobility of the Vonage VoIP product.[31] Internet service providers (ISPs) are also offering Internet-based phone services. Earthlink, for example, has followed AOL's lead by recently announcing a new service that will allow its subscribers to make **free calls** using the Internet so long as there is a computer on the other end that is connected to the Internet and has added the capability to receive such calls.[32]

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[29] Woolley, Scott. "Cheap Talk." Forbes.com. October 4, 2004. <http://www.forbes.com/2004/10/04/cz_sw_1004voip.html>.

[30] AT&T CallVantage Plans & Pricing. <https://www.callvantage.att.com/signup/OfferDetails?offerid=CPCVU&soac=76613>. Accessed November 3, 2004.

[31] Vonage Holdings Corporation. "Boingo Wireless And Vonage Team to Simplify Wireless VoIP Services." Press Release. October 18, 2004. <http://www.vonage.com/corporate/press_index.php?PR=2004_10_18_0>. Accessed November 3, 2004.

[32] Earthlink Free Online Calling. <http://www.earthlink.net/extras/onlinecalling/>. Accessed November 3, 2004.

Price wars between VoIP providers have already begun. Following AT&T's[33] October 1, 2004 announcement that it was dropping the price of its CallVantage offering to $30 per month, Vonage announced the same day that it was dropping its price to $25 per month.[34] In its coverage of this price war, Forbes.com has found that the local Bells stand to lose from this trend, noting that, "According to the U.S. Federal Communications Commission, local phone service is the only major telecom service whose price has risen in this century."[35] The article adds that, "The recent price cuts will make old-fashioned phone service look even more expensive."[36] Some of the Bells are even responding with offers to match some of the more popular elements of their VoIP competitors' products. For instance, SBC is the latest Bell company to offer a single messaging system, allowing subscribers of SBC's local phone service to access messages from home phones, cellphones (provided a subscriber of Cingular, an SBC affiliate), e-mail, and faxes in a single place by checking by phone or over the Internet.[37]

While VoIP is not an exact substitute for traditional telephone service, in terms of technology, it is nonetheless benefiting consumers – even those that stick with traditional landline service. VoIP's competition with local telephone companies may lead to more competitive plans and pricing by the local providers than might have otherwise occurred. Perhaps more importantly, VoIP provides options for consumers. VoIP options often include many enhanced features beyond traditional voice service that a consumer may value more than those attributes they have given up by switching to an alternative technology. Though some might discount VoIP's significance in the telecommunications industry, the low costs to enter the voice market via this technology, the ease of adding marketable features to the service, and the relatively hands-off regulatory treatment (at least in states like Florida), would appear to make it a viable contender for the consumer communications dollar.

In determining the optimal regulatory treatment of VoIP, policymakers might consider the success of the relatively "hands off" regulatory approach taken with respect to the wireless industry. Although initially underestimated as a competitor to traditional phone service, wireless service now offers features that today's standard wireline phone has not matched – such as instant messaging, calendars, cameras – all in addition to mobility – and at prices that consumers find competitive.

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[33] AT&T CallVantage Plans & Pricing.<http://www.usa.att.com/callvantage/plans/index.jsp?soac=64528>. Accessed November 3, 2004.

[34] Vonage Premium Unlimited Plan. <http://vonage.com/products_premium.php>. Accessed November 3, 2004.

[35] Woolley, Scott. "Cheap Talk." Forbes.com. Oct. 4, 2004. <http://www.forbes.com/2004/10/04/cz_sw_1004voip.html>.

[36] Ibid.

[37] SBC Unified Communications Lite Pricing. <http://www05.sbc.com/Products_Services/Residential/ProdInfo_1/1,,1351--12-3-12,00.html>. Accessed November 3, 2004.

3. Broadband over Power Line

Broadband over power line communications (BPL or Access BPL), another promising technology in the competitive telecommunications arena, uses the largely untapped communications capabilities of the nation's power grid. Because power lines reach virtually every home and community, BPL provides potential to become an additional major communications pipe into the home. The Federal Energy Regulatory Commission (FERC) and the Federal Communications Commission (FCC) have been examining the technology and its ability to improve communications for the American public and enhance power supply system management.

By a joint statement on October 14, 2004, Chairman Pat Wood III of the FERC and Chairman Michael K. Powell of the FCC agreed that BPL holds great promise for the American public. Specifically, FERC Chairman Wood and FCC Chairman Powell stated that:

- Ubiquitous broadband deployment is important to the economic, educational, social, medical, and cultural welfare of the country. In order to achieve this goal, national policies should facilitate rapid deployment of all broadband technologies, including BPL. Policymakers at all levels should coordinate their efforts to promote a minimally intrusive policy framework for such technologies.

- The provision of high-speed communications capabilities over utility poles and electric power lines provides an opportunity to increase the competitive broadband choices that are available to customers and the power supply system management options of utilities.

- These services should be allowed to develop according to market demands with minimal regulation.

Chairman Wood and Chairman Powell have urged utilities to pursue new and developing technologies, such as BPL. In addition, they agreed to continue to encourage the development of new technologies that provide additional competitive broadband options, promote continued U.S. leadership in broadband technology, and improve power supply system security, reliability, and efficiency. They also agreed to monitor experience with Access BPL to ensure that existing regulations do not stifle the development of this nascent technology.

As part of its goal to promote access to broadband services for all Americans and to encourage new facilities-based broadband platforms, the FCC also adopted changes to its rules to encourage the development of Access BPL systems while safeguarding existing licensed services against harmful interference.[38] In areas where consumers already have broadband access, BPL can enhance competition by providing another broadband alternative.

[38] Report and Order (FCC 04-245). Federal Communications Commission. ET Docket No. 04-37. October 14, 2004.

The Southern Company recently shared its evaluation of BPL technology with the Commission.[39] It referred to recent and anticipated advances, including: improved technology, multiple active BPL vendors, and faster computing capability in chip sets. Southern listed some factors that may create a window of opportunity, including: growth in broadband demand; increased penetration rates for DSL and cable modems; and concerns about availability and reliability of DSL and/or cable in some areas. Southern said that many utilities are testing BPL. Southern concluded that BPL technology works; the question now shifts to "how well."

B. DECLINE OF TRADITIONAL TELECOM SECTOR

According to the October 2004 U.S. Chamber of Commerce Report, "Sending the Right Signals: Promoting Competition Through Telecommunications Reform," post-1996 Telecom Act losses have been substantial. Market capitalization in telecommunications plummeted from $1,135 billion in March 2000 to $375 billion by July 2004 – a staggering 67% decline. A similar trend was observed with respect to the communications equipment manufacturers, experiencing a 74% decline in market capitalization ($1,282 billion to $338 billion) over the same time period. Job losses followed suit, with a loss of 380,500 jobs between March 2001 and May 2004 in telecom service, Internet service, and equipment manufacturing. In fact, 29% of jobs lost during this period were in telecommunications.[40]

The U.S. Chamber's report suggests that some federal and state regulatory policies are depriving the communications sector of substantial innovation and investment that could put the ailing sector on the road to recovery. The report maintains that ". . . regulators are regulating for a world that no longer exists, one of limited telecommunications technologies and limited competition in the field."[41] While not all customers have numerous alternatives to traditional telephone service today, the decline of the traditional telecom sector – and the emergence of alternatives to traditional telephony - are hard to ignore. ILEC access lines are decreasing, due at least in part to competitive technologies such as wireless, broadband, and VoIP.

Florida-specific data supports this trend of declining ILEC access lines. Specifically, ILECs lost 12% of their lines to CLECs and intermodal competitors between 2001 and 2004.[42] Even in the face of continued Florida population growth, the net number of residential access lines continues to decline. In the most recent reporting period, ILEC residential losses of almost

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[39] Presentation to the Florida Public Service Commission on Broadband over Power Line Technology by the Southern Company. Florida Public Service Commission Internal Affairs Meeting. August 16, 2004.

[40] "Sending the Right Signals: Promoting Competition Through Telecommunications Reform." U.S. Chamber of Commerce. October 6, 2004. The Commission notes that its reference to this study should not suggest an endorsement of the policies or conclusions contained therein.

[41] "Sending the Right Signals: Promoting Competition Through Telecommunications Reform." U.S. Chamber of Commerce. October 6, 2004. Page 3.

[42] Responses to Commission Data Requests.

399,000 lines were slightly offset by approximately 3,400 additional CLEC lines.[43] While some of this line loss is attributable to secondary phone lines (used for dial-up Internet access) being replaced with DSL or cable modem service, other intermodal competitors such as wireless and VoIP service providers are believed to account for some of the difference as well.

Not even the regional Bell companies are protected from the risks of today's increasingly competitive market, as they too are facing the pressures of access line loss in their core business along with other ILECs. "The threat [to the phone companies] from cable is not theoretical," says Scott Cleland, CEO of Precursor, a research firm that serves institutional investors. "It is real, and it is devastating." He notes that in Orange County, California, and Omaha, Cox [Cable] has a 40 percent market share for voice.[44] As one Wall Street Journal reporter put it, "For the Bells, it's time to adapt or die."[45] The Bells are losing a substantial number of access lines to competitors – to wireline competitors and to newer rivals such as wireless companies and VoIP providers.

Wall Street has observed this trend and has reservations about the outlook for traditional phone companies, including those that sprung from Ma Bell. In September 2004, the Wall Street Journal reported that:

> Sometime in the next week, Standard & Poor's, citing a deterioration in their core phone businesses, likely will lower its credit rating for the three biggest Baby Bell telephone companies: Verizon Communications Inc., SBC Communications Inc. and BellSouth Corp. Such a move would be the first time the ratings firm has acted against these three companies at once....The potential downgrade highlights how significantly the business has changed for the nation's three largest local phone companies, which once had near monopolies in their regions. In the past few years, though, they have lost millions of local phone lines as people switch to wireless phones and Internet phone service provided by cable-television companies and upstart phone companies such as Vonage Holdings Corp. Five years ago, BellSouth was rated Triple-A, S&P's highest rating, while Verizon hasn't seen its rating cut in more than four years.[46]

Even as the Bells attempt to address their relative weaknesses in providing the complete bundle of voice, video, and data by investing in concepts such as movies on demand over the Internet, telecom investors show apprehension, and shares remain relatively flat.[47]

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[43] Responses to Commission Data Requests.

[44] Pethokoukis, James. "War of the Wires." U.S. News & World Report. Sept. 27, 2004. <http://www.usnews.com/usnews/issue/040927/tech/27cable.htm>.

[45] Rhoads, Christopher. "Outside the Lines." The Wall Street Journal. September 13, 2004. Page R6.

[46] Brown, Ken and Lucchetti, Aaron. "Downgrades Toll For 3 Baby Bells As Core Lines Weaken." The Wall Street Journal. September 27, 2004. p. C1.

[47] Latour, Almar. "Free For All." The Wall Street Journal. September 13, 2004. p. R1.

While there are numerous policy proposals aimed at reversing the continued decline of the traditional telecommunications sector, the aforementioned U.S. Chamber of Commerce study serves as a recent example. To promote investment, the Chamber recommends the following reforms: (1) Phase out rules that require network-sharing, and end regulated wholesale rates set at theoretical costs; (2) Increase availability of prime radio spectrum to commercial wireless providers; (3) Exempt both high-speed cable modem and DSL from common carrier regulations through classification as "information services," and preempt state regulation altogether; (4) Exempt all regulation of VoIP through classification as an "information service," and preempt state regulation altogether; (5) Collect funds for achieving universal service goals in a competitively neutral manner, such as appropriations from general tax revenues; and (6) Disperse universal service funds directly to targeted consumers to allow consumers to choose among communications alternatives. By implementing these six recommendations, the Chamber estimates substantial economic improvements, including $58 billion in new capital investment over five years, increased productivity, increase in average employment levels of over 212,000 jobs in five years, accelerated rollout of innovative products and services, added consumer value, achievement of social policy objectives like universal service, and enhanced U.S. competitiveness in the global arena.[48] The Commission notes that it has neither analyzed nor endorsed this study. Whether its conclusions or recommendations have merit, the study points out that the health of the telecommunications sector is of significant enough importance to our economy to warrant close examination by policymakers.

[48] "Sending the Right Signals: Promoting Competition Through Telecommunications Reform." U.S. Chamber of Commerce. October 6, 2004.

CHAPTER III : STATUS OF LOCAL COMPETITION IN FLORIDA

A. WIRELINE MARKET SHARE ANALYSIS[49]

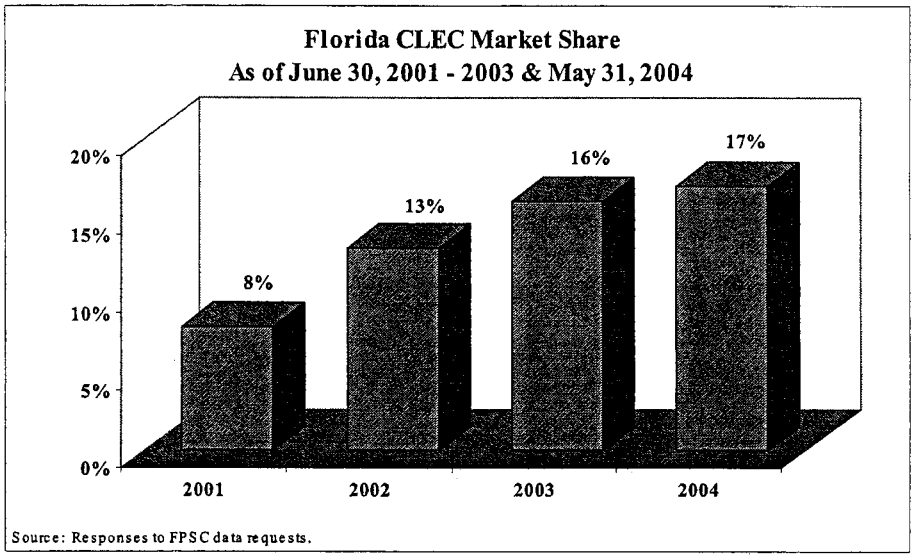
1. CLEC Market Share Growth[50]

Calculations based on responses to the Commission's data request indicate the following Florida market share information as of May 31, 2004:[51]

- Overall CLEC market share increased to 17% from 16% last year.
- CLEC business market share is 30%, the same as last year.
- CLEC residential market share increased to 10% from 9% last year.

Figure 1 provides the overall CLEC market shares for 2001 through 2004.

Figure 1



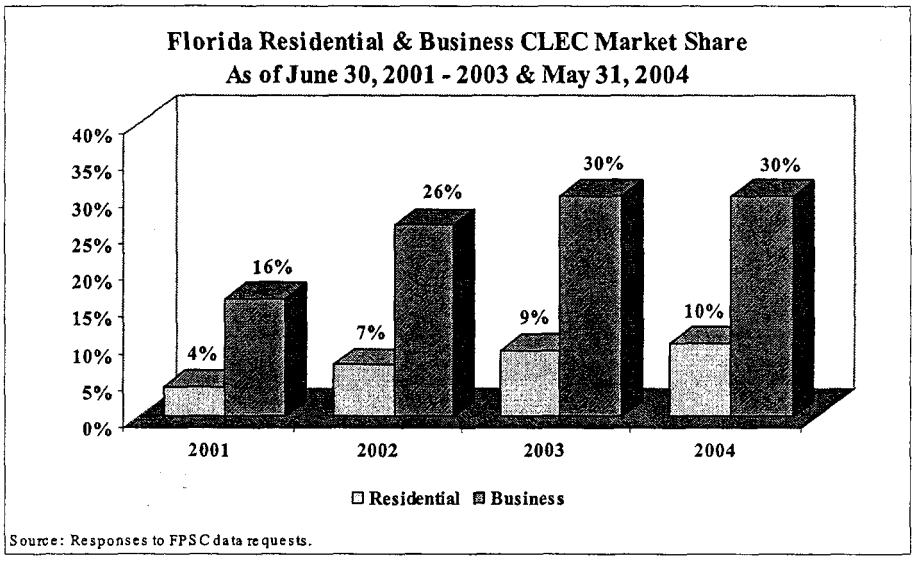
[49] This section discusses data regarding the market shares of incumbent and competitive local exchange providers. It does not analyze the overall market for voice communications or the market share of non-jurisdictional companies (e.g., wireless or VoIP providers).

[50] CLEC business line counts reported in the 2003 Annual Report on Competition have been restated for the 2004 report. This revision was necessary because a CLEC that reported a substantial number of lines for the 2004 report failed to submit its data in time to be included in the 2003 report. Restating the 2003 lines results in more comparable year-to-year figures. The restated 2003 data affected business lines only and are reflected in Figures 2 through 4, 6 through 9, and Tables 1 through 5 that follow.

[51] Commission results may differ from that reported by the FCC for comparable periods due to FCC procedures that capture data only from CLECs serving 10,000 or more access lines.

Figure 2 provides a breakdown of the CLEC residential and business market shares.

Figure 2



Source: Responses to FPSC data requests.

2. Access Line Comparisons

Based on responses to the Commission's data requests, local exchange companies were serving 11,715,986 lines in Florida as of May 31, 2004. Table 1 summarizes the changes in access lines for both ILECs and CLECs for the 2001 through 2004 reporting periods. Total access lines in Florida declined approximately 1/2% in the reporting period, the third straight year of decline. Business lines showed a strong increase during the year, but were offset by a significant loss of residential lines, presumably to broadband, wireless and VoIP providers. Total access lines in Florida have declined 3% since 2001. Over this same period, ILECs have lost 12% of their lines to CLECs, broadband and intermodal providers. CLEC lines have increased by 107% since 2001. However, the number of CLEC lines has increased by only 6% since 2003. (See further discussion of access line trends in Section II.B.)

Table 1 Florida Access Line Comparison

	2001			2002			2003			2004			Increase over 2001
	Residential	Business	Total	Residential	Business	Total	Residential	Business	Total	Residential	Business	Total	
ILECs	7,931,047	3,139,959	11,071,006	7,513,073	2,748,419	10,261,492	7,203,749	2,688,870	9,892,619	6,804,789	2,925,322	9,730,111	<12%>
CLECs	366,653	594,223	960,876	546,040	959,294	1,505,334	726,638	1,143,936	1,870,574	730,094	1,255,781	1,985,875	107%
Total	8,297,700	3,734,182	12,031,882	8,059,113	3,707,713	11,766,826	7,930,387	3,832,806	11,763,193	7,534,883	4,181,103	11,715,986	<3%>

Source: Responses to FPSC data requests.

3. CLEC Market Penetration by ILEC Service Area

Table 2 provides a breakdown of ILEC access lines by the three major ILECs (BellSouth, Sprint, and Verizon) and a total line count for the rural ILECs (ALLTEL, Frontier, GT Com, ITS, Northeast Florida, Smart City and TDS/Quincy). The rural ILECs' lines are combined to preserve the confidentiality of CLEC lines. CLECs show the heaviest market penetration in BellSouth's territory, followed by the territories of Verizon and Sprint, then the rural ILECs.

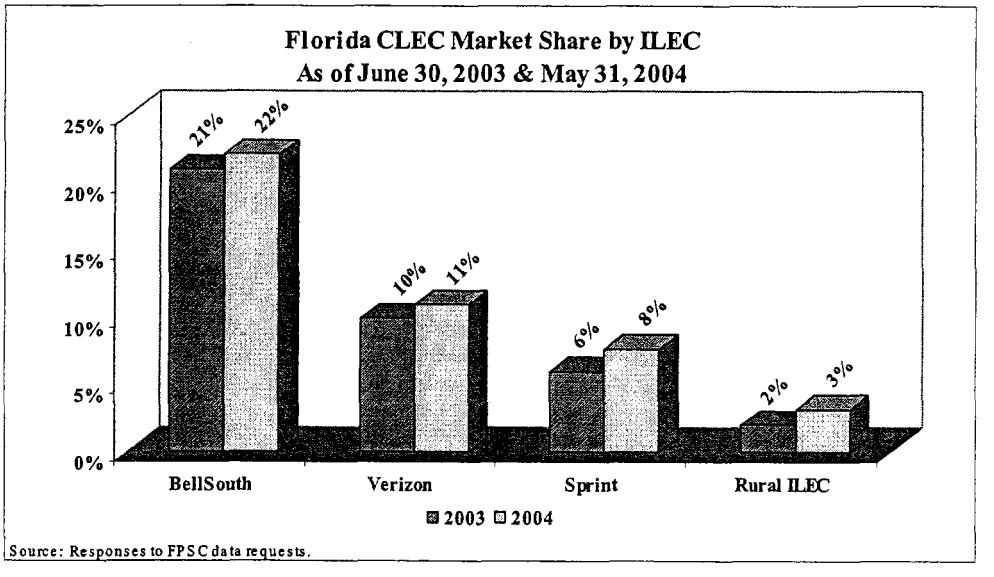
Table 2 Florida CLEC Market Penetration by ILEC as of May 31, 2004

	ILEC			CLEC			Total			CLEC Share		
ILEC	Res	Bus	Total	Res	Bus	Total	Res	Bus	Total	Res	Bus	Total
BellSouth	3,724,738	1,677,735	5,402,473	665,725	895,036	1,560,761	4,390,463	2,572,771	6,963,234	15%	35%	22%
Verizon	1,580,228	597,162	2,177,390	24,140	231,631	255,771	1,604,368	828,793	2,433,161	2%	28%	11%
Sprint	1,357,953	599,258	1,957,211	37,275	125,738	163,013	1,395,228	724,996	2,120,224	3%	17%	8%
Rural ILEC	141,870	51,167	193,037	2,954	3,376	6,330	144,824	54,543	199,367	2%	6%	3%
Grand Total	6,804,789	2,925,322	9,730,111	730,094	1,255,781	1,985,875	7,534,883	4,181,103	11,715,986	10%	30%	17%

Source: Responses to FPSC data requests.

Figure 3, showing CLEC market share by ILEC, reflects some growth in CLEC penetration during the reporting period, although less growth than in previous years. Data also show CLEC market share in BellSouth's territory is more than double that achieved in Verizon's territory and almost triple that achieved in Sprint's territory. The key factors underlying this differential are that BellSouth has lower UNE rates and its territory includes the most densely populated areas of the state. These factors combined offer more favorable conditions for CLECs to compete.

Figure 3

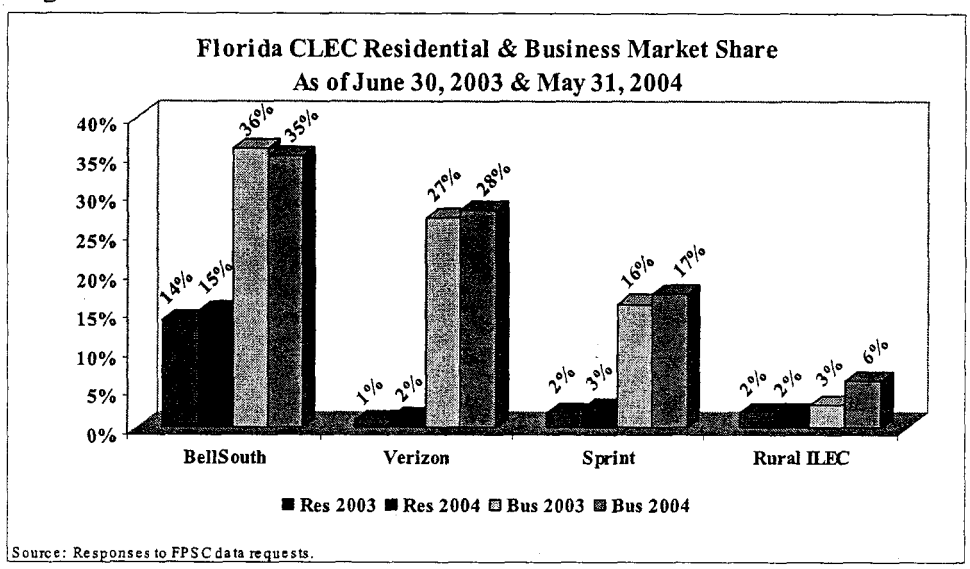


Source: Responses to FPSC data requests.

Figure 4 shows CLEC share of the residential and business markets by ILEC. The figure highlights that substantial residential competition is taking place mainly in BellSouth's territory. As will be discussed later, CLECs currently rely primarily on UNE-P to serve the residential

market, and UNE-P rates are lowest in BellSouth's territory. While additional reasons may exist, CLECs appear to have found it less profitable to enter the residential markets (at least using the UNE-P strategy) in Verizon's and Sprint's territories due to low margins between the ILEC's local rates (which ILECs and some facilities-based CLECs argue are artificially low) and the UNE-P rates (which many CLECs argue are too high).

Figure 4



Source: Responses to FPSC data requests.

4. Competitive Presence by Exchange

Table 3 shows that the number of exchanges with three or more competitors continues to increase, although at slower rates of increase than in previous years.[52] The number of exchanges with three or more CLECs increased from 243 in 2003 to 248 in 2004. Three or more CLECs now compete in 90% of Florida exchanges compared to 87% last year. However, the number of exchanges without CLEC providers increased from 8 in 2003 to 13 this year. Overall, approximately 95% of Florida exchanges have at least one CLEC competitor.

[52] The 2003 Report erroneously stated that the number of exchanges with two or more CLECs was 12; the correct number was 11.

Table 3 Summary of Florida Exchanges With & Without CLEC Providers			
	2002	2003	2004
Exchanges with one CLEC provider	20	15	13
Exchanges with two CLEC providers	14	11	3
Exchanges with three or more CLEC providers	229	243	248
Exchanges without a CLEC provider	14	8	13
Exchanges without a business CLEC provider	61	57	56
Exchanges without a residential CLEC provider	19	13	17
Total exchanges in Florida	277	277	277

Source: Responses to FPSC data requests.

As the following tables indicate, CLECs concentrate on larger metropolitan areas. As discussed in our 2003 report, there are a number of reasons for this. The majority of Florida's most populated exchanges are in BellSouth's territory. Higher population densities improve economies of scale. These economies are reflected in BellSouth's costs and resulting UNE rates and explains in part why each exchange shown in Table 4 is in BellSouth's territory.

Table 4 Florida Exchanges with the Most CLEC Providers						
	Residential		Business		Total CLEC Providers	
Exchange	(2003)	(2004)	(2003)	(2004)	(2003)	(2004)
Miami	78	85	65	81	98	110
Fort Lauderdale	73	82	54	70	91	106
West Palm Beach	68	82	53	67	86	105
Orlando	67	76	53	62	88	104
Jacksonville	67	76	49	64	84	103
Hollywood	69	77	45	59	47	100
Coral Springs	53	77	35	61	67	99
North Dade	64	71	53	57	84	92
Perrine	55	66	42	52	74	87
Daytona Beach	54	56	41	52	75	82

Source: Responses to FPSC data requests.

Table 5 further illustrates the concentration of CLECs in the larger metropolitan areas. This table shows that 58% of CLEC access lines are concentrated in the ten largest Florida exchanges, whereas these exchanges serve 44% of total access lines in Florida. Six of the largest exchanges are in BellSouth's territory, three are in Verizon's, and one is in Sprint's. For reasons mentioned previously, CLECs have achieved significant residential market penetration only in the BellSouth exchanges.

Table 5 Ten Largest Exchanges CLEC Market Share by Customer Type											
			Total Lines in Exchange			CLEC Total			CLEC Market Share		
	Exchange	ILEC	Res	Bus	Total	Res	Bus	Total	Res	Bus	Total
1	Miami	BellSouth	661,666	536,100	1,197,766	115,057	180,308	295,365	17%	34%	25%
2	Tampa	Verizon	445,673	338,277	783,950	10,486	110,541	121,027	2%	33%	15%
3	Fort Lauderdale	BellSouth	300,925	253,998	554,923	60,408	106,105	166,513	20%	42%	30%
4	Jacksonville	BellSouth	303,666	233,391	537,057	59,271	90,282	149,553	20%	39%	28%
5	West Palm Beach	BellSouth	326,746	166,876	493,622	43,550	53,658	97,208	13%	32%	20%
6	Orlando	BellSouth	268,556	216,786	485,342	42,987	89,883	132,870	16%	41%	27%
7	Hollywood	BellSouth	221,784	95,220	317,004	54,997	37,285	92,282	25%	39%	29%
8	St. Petersburg	Verizon	213,830	101,524	315,354	2,729	25,346	28,075	1%	25%	9%
9	Clearwater	Verizon	199,073	103,788	302,861	1,757	37,755	39,512	1%	36%	13%
10	Tallahassee	Sprint	101,155	119,575	220,730	4,343	18,352	22,695	4%	15%	10%
Grand Total			3,043,074	2,165,535	5,208,609	395,585	749,515	1,145,100	13%	35%	22%
% of Total Lines in FL			40%	52%	44%	54%	60%	58%			

Source: Responses to FPSC data requests.

A complete listing of CLEC providers by exchange is shown in Appendix B. The listing indicates that in the majority of Florida's exchanges, the number of CLEC providers has increased in both the residential and business marketplace.

B. STATUS OF COMPETITIVE MARKETS

1. Changing Market Trends

The previous section provided a description of the current market share positions of the Florida ILEC and CLEC providers. This section examines the underlying changes in access lines since 2001. This examination includes a closer look at the growth trends indicated by the data in Table 1 on page 21.

a. Overall Access Line Trends

The first trend discussed is the disparate growth rates for Florida residential access lines and Florida business access lines. From 2001 to 2002, total Florida access lines declined for the first time. However, as Figure 5 shows, business lines have since recovered and exhibited a particularly strong growth of 9% in 2004. This points to a strong business climate in Florida as an underlying factor. Residential lines, in contrast, show continued declines. A drop of 5% in 2004 represents the largest annual percentage loss to date. This decline indicates that traditional access lines are likely being lost to residential broadband providers and intermodal competitors. Intermodal competitors are those such as cable and wireless carriers providing service using their own technology and facilities rather than traditional telephone facilities.

Figure 5

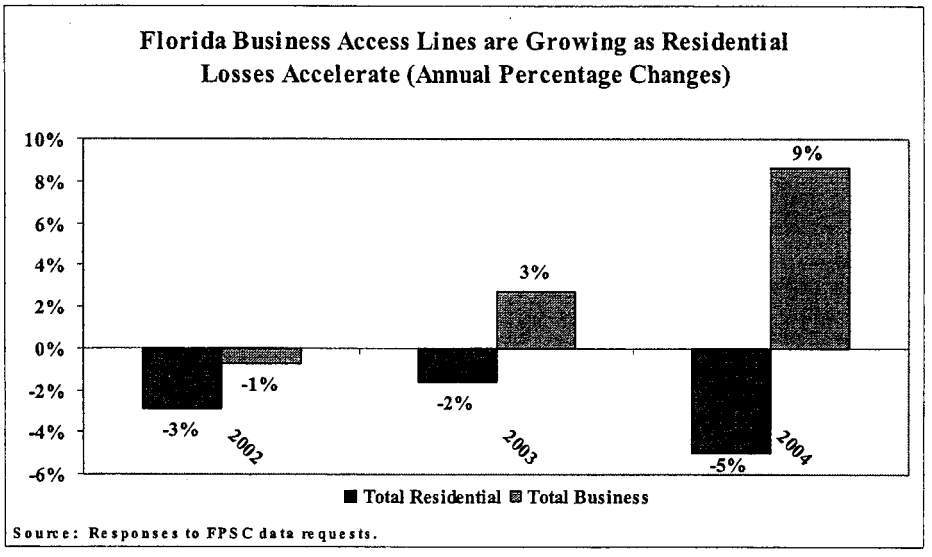
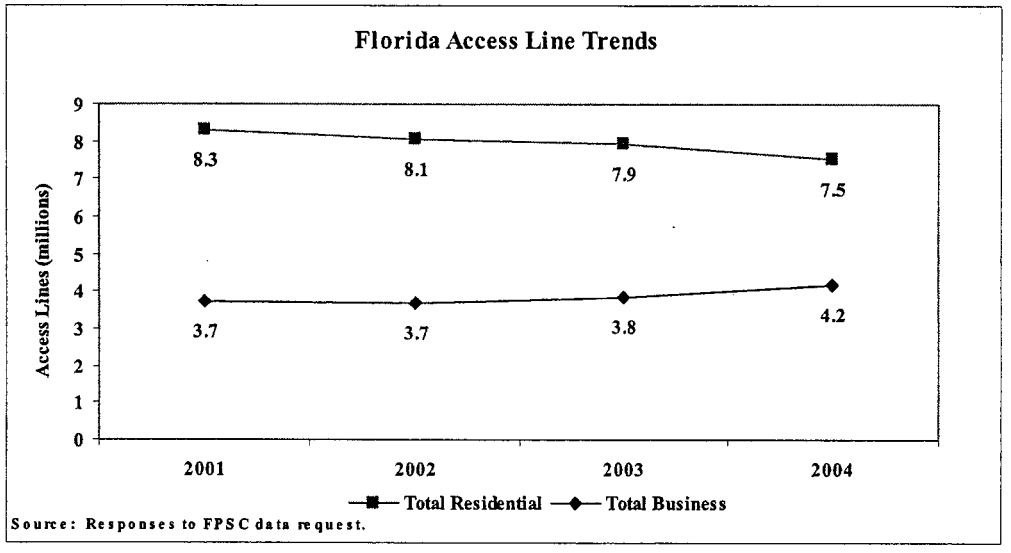


Figure 6 presents the data in terms of absolute line counts. This shows a loss of nearly 763,000 residential access lines over the past three years, with total residential access lines declining to 7.5 million lines. In the same period, businesses have added approximately 447,000 lines to total approximately 4.2 million.

Figure 6



b. ILEC versus CLEC Line Trends

Examining CLEC and ILEC access line growth, the data appear to indicate that both CLECs and ILECs are finding it increasingly difficult to compete in today's market and regulatory environment. Revealing that CLECs are not the beneficiaries of the recent ILEC access line decline, Figure 7 shows a large reduction in CLEC access line growth since 2001. While CLECs achieved 57% gains in overall access lines in 2002, and 24% growth in 2003, there was only marginal overall growth of 6% in 2004. This was comprised entirely of gains in the business market where annual growth was 10%. In the residential market, CLECs essentially had no growth, down from a 49% growth rate only two years earlier.

Figure 7

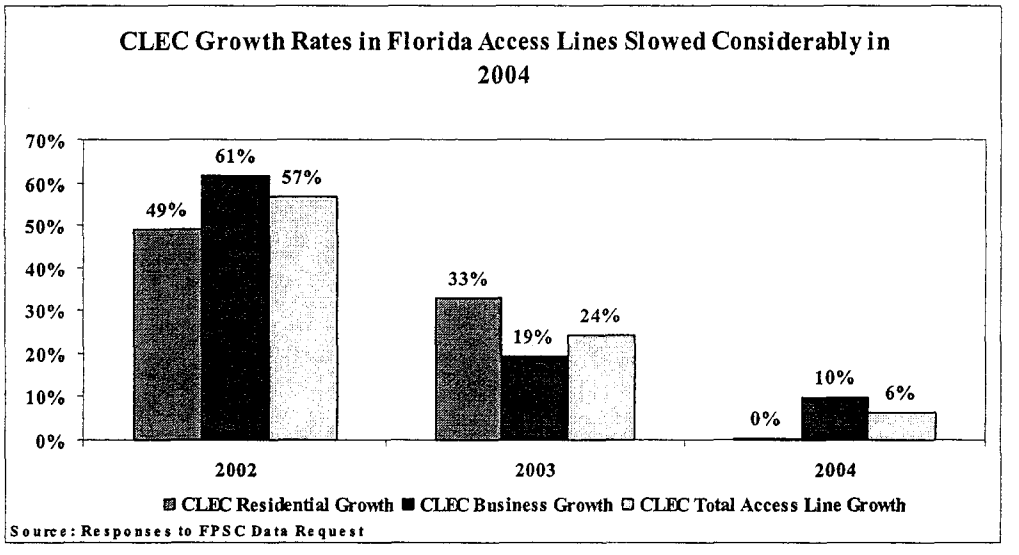
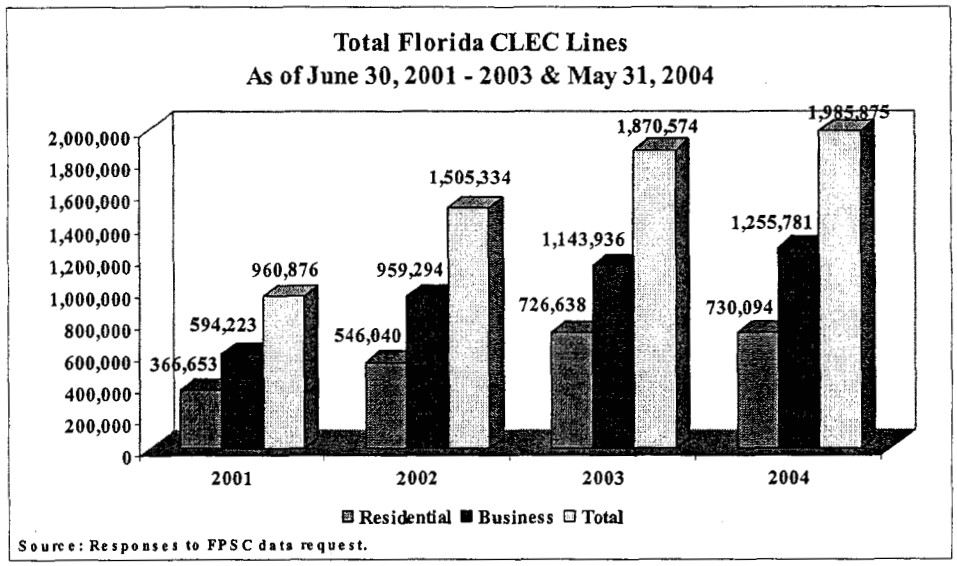


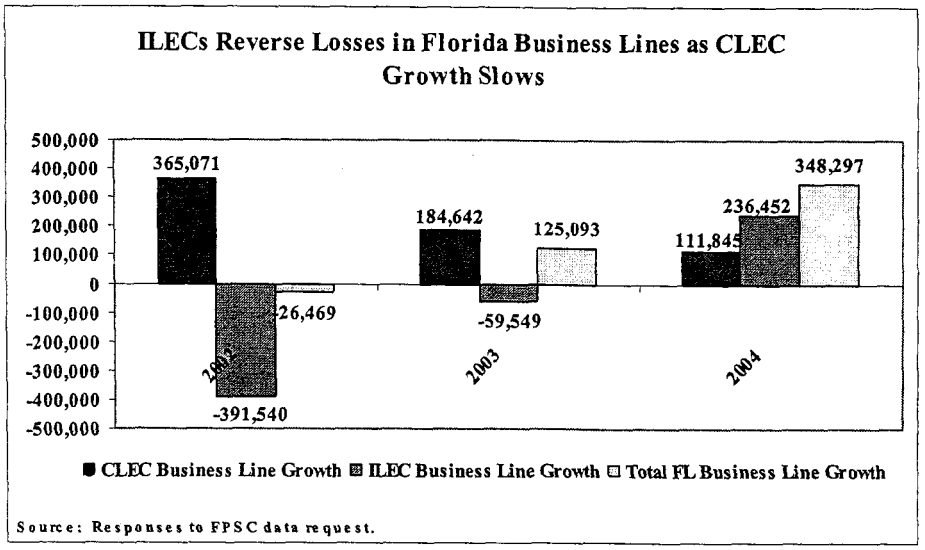
Figure 8 illustrates the percentage growth in CLEC access line counts for the most recent three years. The number of CLEC residential and business access lines each doubled from 2001 to 2004. The slow growth in 2004 is again distinguished from the strong gains of previous years.

Figure 8



Since Florida markets were opened to competition with the 1995 Florida act and the 1996 federal act, CLECs have made the greatest penetration in the business market. In competition with CLECs, ILECs have been offering discounted services to small and medium-sized businesses willing to sign extended contracts. These ILEC programs appear to be effective, as indicated by recent trends in business access lines. While total business line growth in 2004 was 9% (as shown in Figure 5) and CLECs maintained business line growth of 10% (Figure 7), this data does not capture the true magnitude of the shift in new business market share. Figure 7 above reveals that CLEC business line growth has fallen dramatically since the 61% growth posted in 2002. Further, Figure 9 below shows that the recent trend of ILEC business line losses and strong CLEC gains has reversed in 2004. In 2002 ILECs lost almost 400,000 business lines and CLECs gained over 365,000 such lines. In 2004 CLECs gained only 111,845 business lines, while ILECs gained over 236,000, accounting for 68% of the 2004 business line growth. Net business gains by both ILECs and CLECs, which occurred for the first time since 2001, indicate an improving business climate for the state as a whole.

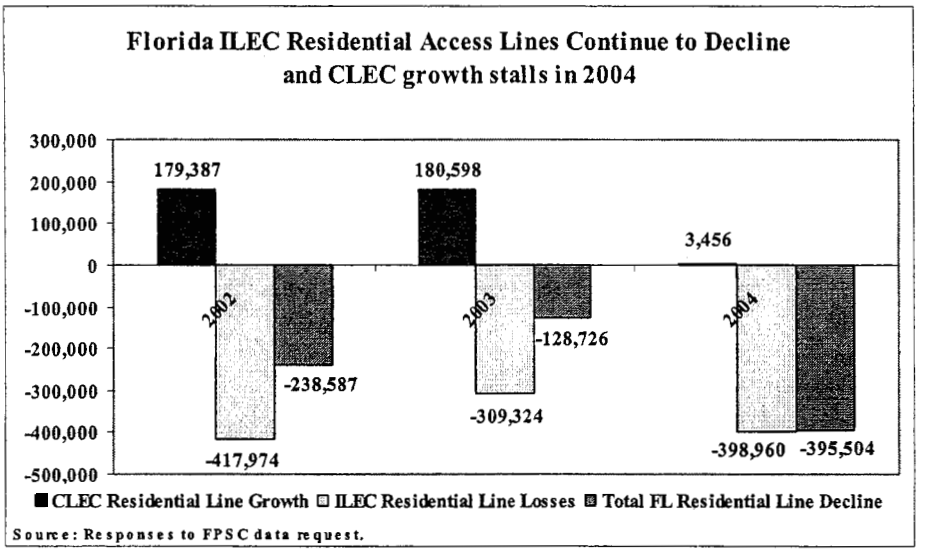
Figure 9



Just as in the business market, CLECs have seen strong growth rates in residential lines sharply curtailed in 2004. After gaining over 180,000 lines in 2003, as shown in Figure 10, CLECs saw only a marginal increase of 3,456 residential access lines in 2004. This decline in growth rates may be attributable to a number of factors, including: an overall depressed telecom sector; decreases in the level of capital flowing from Wall Street to the CLEC community; regulatory uncertainty regarding the fate of UNE-P; BellSouth's re-entry into the long distance market; price and service competition from ILECs' and others' bundled service offerings;[53] and competition from intermodal competitors such as wireless, cable and VoIP carriers.

[53] These bundled offerings may include choices of local, long distance, DSL, and now satellite TV and wireless services at discounted prices.

Figure 10



While the net number of business lines increased for this reporting period, the net number of residential access lines continued to decline, even in the face of continued Florida population growth. The largest net loss to date occurred in the 2004 reporting period when ILEC residential losses totaled approximately 399,000 lines and CLECs added only 3,456 residential lines. This points to the growing number of lines replaced by broadband connections and the influence of intermodal competition in the residential voice market. Intermodal competition is discussed in greater detail in Chapter IV.

Section 271 of the 1996 Act also has contributed to the development of the competitive environment faced by market participants today. Section 271 allowed the RBOCs to re-enter the market for long distance services, subject to an extensive pre-qualification process by the FCC and state commissions. BellSouth began offering long distance service in Florida after receiving FCC approval for the Florida market in December 2002. Upon re-entry into long distance, RBOCs quickly achieved significant market share. In July 2004, BellSouth announced a total of 5.1 million long distance customers and 39.7% penetration of its mass market customers region-wide. In Georgia and Louisiana, where BellSouth first gained 271 approval two years ago, the penetration rate is up to 44.1%. In Florida and Tennessee, where BellSouth has been competing for only six quarters, the penetration rate is 35.8%.[54] Verizon reported even stronger long distance results, with 45% long distance penetration of regional access lines as of the first quarter of 2004.[55]

[54] BellSouth Investor News. April 22, 2004. <http://www.bellsouth.com/investor/pdf/1q04p_news.pdf>.

[55] Verizon 1Q 2004 Earnings slide presentation. April 27, 2004. <http://investor.verizon.com/financial/quarterly/VZ/1Q2004/>.

2. Impact of Regulatory Changes

In addition to competition from other local exchange providers and from intermodal competitors, ILECs and CLECs faced significant regulatory uncertainty this past year. As discussed in this report, UNE-P is currently the most prevalent strategy used by CLECs in Florida. By combining an ILEC's switching with its loop and transport elements, UNE-P allows CLECs to compete with little or no investment in their own facilities. Facilities-based competitors, like Florida Digital Network and Knology, combine their own switching facilities with existing loop and transport facilities of the ILEC (sometimes called the "bottleneck" facilities) to provide service. The majority of Florida CLECs have, thus far, relied on UNE-P to serve the mass market and have built a substantial customer base by offering unlimited local and long distance services for a single discounted price. The prevalence of UNE-P will likely change in the near future, however, due to regulatory and related court decisions aimed at promoting facilities-based strategies and due to CLECs' efforts to modify their business plans accordingly.

While there are numerous regulatory decisions by the FCC and state commissions that are impacting ILECs and CLECs, the following discussion focuses on those regulatory changes that have implications on the future of the UNE-P strategy as well as on the future of facilities-based strategies.

a. TRO and Its Appeal

On August 21, 2003, the FCC released its *Triennial Review Order* (TRO),[56] which contained revised unbundling rules and responded to the D.C. Circuit Court of Appeals' remand decision in *USTA I*.[57] The TRO had eliminated enterprise switching as a UNE on a national basis. For other UNEs (e.g., mass market switching, high capacity loops, dedicated transport), the FCC made a national finding of impairment, but acknowledged there may be areas where impairment does not exist; the FCC delegated to the states the task of identifying these areas.[58] In addition, the TRO imposed new obligations on ILECs (e.g., commingling and conversion of special access to Enhanced Extended Links (EELs)). The TRO did not address the issues of UNE pricing or retail rates charged by ILECs or CLECs. The TRO was subsequently appealed to the D.C. Circuit Court of Appeals.

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[56] In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket Nos. 01-338, 96-98, 98-147, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, rel. August 21, 2003.

[57] United States Telecom Association v. FCC, 290 F.3d 415 (D.C. Cir. 2002) (USTA I).

[58] The FCC directed the states to make their determinations within nine months of the effective date of the order. In response to the *TRO*, the Commission opened three dockets. See Chapter VI for more information on the Commission dockets regarding implementation of the TRO.

On March 2, 2004, the D.C. Circuit Court of Appeals, in *United States Telecom Ass'n v. FCC*[59] *(USTA II),* vacated and remanded certain provisions of the TRO. Among other holdings, the D.C. Circuit held that:

- The FCC cannot delegate its authority to the states, except for fact-finding and other limited circumstances.[60]

- The states cannot be granted the authority by the FCC to make the impairment findings that the law requires the FCC to make.

- The FCC used an improper analysis in concluding that mass market switching was impaired nationally.

- The FCC used an improper analysis in concluding that certain dedicated transport was impaired nationally.

The FCC did not appeal the D.C. Circuit decision to the U.S. Supreme Court. In addition, the Solicitor General of the United States did not appeal the decision. Certain parties in the proceeding did appeal. The United States Supreme Court, however, declined to hear the appeal, and the D.C. Circuit decision stands.

The D.C. Circuit's ruling has provided guidance to the FCC regarding its unbundling duties under the 1996 Act. The Court specifically rejected the FCC's delegation of impairment findings to state commissions. The Court indicated the FCC could weigh other goals of the 1996 Act against impairment. The Court ruled that the market test for elements should not be too specific and must consider the *ability* of a CLEC to enter the market. The Court provided clarity by specifically upholding certain FCC decisions in the TRO, including not requiring ILECs to unbundle the broadband capabilities of hybrid copper-fiber loops and fiber-to-the-home loops. The Court also sent guidance through the following statement regarding the purpose of the 1996 Act:

> The purpose of the Act is not to provide the widest possible unbundling, or to guarantee competitors access to ILEC network elements at the lowest price that government may lawfully mandate. Rather, its purpose is to stimulate competition – preferably genuine, facilities-based competition.[61]

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[59] 359 F. 3d 554 (D.C. Cir. 2004) (*USTA II*), cert. denial, Nos. 04-12, 04-15, 04-18 (October 12, 2004).

[60] Specifically, the Court states: "We therefore vacate, as an unlawful subdelegation of the Commission's §251(d)(2) responsibilities, those portions of the Order that delegate to state commissions the authority to determine whether CLECs are impaired without access to network elements, and in particular we vacate the Commission's scheme for subdelegating mass market switching determinations. (This holding also requires that we vacate the Commission's subdelegation scheme with respect to dedicated transport elements, discussed below.)" *USTA II* at 18.

[61] *USTA II* at 31.

b. FCC's Interim and Final Rules

As a result of the Court's mandate, the FCC released an *Order and Notice ("Interim Rules")*[62] on August 20, 2004, requiring ILECs to continue providing unbundled access to mass market local circuit switching, high capacity loops, and dedicated transport until the earlier of the effective date of final FCC unbundling rules or six months after Federal Register publication of the *Order and Notice.* Additionally, the rates, terms, and conditions of these UNEs are required to be those that applied under ILEC/CLEC interconnection agreements as of June 15, 2004.[63] In the event that the interim six months expires without final FCC unbundling rules, the *Order and Notice* contemplates a second six-month period during which CLECs would retain access to these network elements for existing customers, at transitional rates. Besides establishing interim measures, the *Order and Notice* seeks comment on, among other things, alternative unbundling rules that will respond to *USTA II.*

The FCC is seeking to finalize its rules by year end 2004. On August 23, 2004, certain ILECs filed a *Mandamus Petition*[64] with the D.C. Circuit in response to the FCC's *Order and Notice,* specifically seeking vacatur of the interim Triennial Order. Most notably, the ILECs strongly objected to the FCC allowing the addition of new customers during the first six months and the continued availability of switching, dedicated transport, and enterprise loops despite the lack of any impairment finding. On October 6, 2004, the Court entered an order holding the matter in abeyance until January 4, 2005. Numerous parties have indicated that if the FCC does not produce its final rules by year end 2004, they will seek a court order finding no impairment for switching, dedicated transport, and enterprise loops and a determination that such order be binding on states.

On September 13, 2004, the Interim Rules went into effect, and the FCC seems poised to issue final rules by year end 2004. Many expect the FCC's final unbundling rules (pursuant to the USTA II decision) to provide for CLECs to transition off of ILEC switches and to their own switches over some period of time at least in certain circumstances.[65] The final rules may also provide for stepped increases for access to ILEC switching during an interim period. It is unclear precisely how future rates for local switching will be established, and who will set such rates.

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[62] In the Matter of Unbundled Access to Network Elements, WC Docket No. 04-313; In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, CC Docket No. 01-338, Order and Notice of Proposed Rulemaking, FCC 04-179, rel. August 20, 2004 (Order and Notice).

[63] Except to the extent the rates, terms, and conditions have been superseded by 1) voluntarily negotiated agreements, 2) an intervening FCC order affecting specific unbundling obligations (e.g., an order addressing a petition for reconsideration), or 3) a state commission order regarding rates.

[64] *United States Telcom Association v. FCC,* Petition for a Writ of Mandamus to Enforce the Mandate of the Court, August 23, 2004 (*Mandamus Petition*).

[65] Companies like Florida Digital Network, Supra, and Knology currently have self-provision switching.

If local switching is unbundled pursuant to section 271, the FCC has concluded that it must satisfy the "just and reasonable" standard,[66] a conclusion affirmed in USTA II.[67] There is substantial controversy as to whether such rates are subject to the section 252 arbitration process, with the states adjudicating any dispute concerning the appropriate rates for local switching, or instead are subject to review by the FCC.[68] It is unknown when these matters will be resolved.

As with any regulatory change, the extent to which companies doing business in Florida are impacted will vary. CLECs that are serving the mass market via a UNE-P strategy and that are operating at the margins may be negatively impacted. In contrast, some facilities-based CLECs serving the mass market will likely be positively impacted.

The final rules will undoubtedly have an impact on CLEC business plans. Some CLECs, like Supra Telecom, that are providing service via both UNE-P and their own facilities, may increase reliance on their own switches/facilities. Other CLECs may merge, as Florida Digital Network and ITC DeltaCom have done, in order to obtain a larger footprint and greater economies of scale. While some CLECs may choose to exit the market, other CLECs may change their product offerings. Z-Tel Communications announced in July that it would stop seeking new customers for local and long distance telephone service in 43 of the 48 states it now serves.[69] Rather than a nationwide approach based on UNE-P, Z-Tel stated their new business model is to be based on targeting select urban centers with the company's own facilities, loops leased from the incumbents (UNE-L), and VoIP as the service method. Tampa, Florida is one of the metro areas Z-Tel intends to continue marketing. In addition, AT&T recently announced it was ending efforts to gain new residential customers in the traditional landline voice business. The company said it will no longer pursue long distance or local customers, except via its new VoIP undertaking, which the company is rolling out nationwide.[70] As of September 30, 2004, AT&T was offering residential VoIP service in 170 major markets throughout the U.S., covering 62% of U.S. households.[71] MCI also reported in its 10-Q report filed with the SEC on August 9,

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[66] TRO, paragraph 663 states:

> Thus, the pricing of checklist network elements that do not satisfy the unbundling standards in section 251(d)(2) are reviewed utilizing the basic just, reasonable, and nondiscriminatory rate standard of sections 201 and 202 that is fundamental to common carrier regulation that has historically been applied under most federal and state statutes, including (for interstate services) the Communications Act. Application of the just and reasonable and nondiscriminatory pricing standard of sections 201 and 202 advances Congress's intent that Bell companies provide meaningful access to network elements.

[67] "Of course, the independent unbundling under §271 is presumably governed by the general nondiscrimination requirement of §202." USTA II at 53.

[68] *See* BellSouth Emergency Petition for Declaratory Rule and Preemption of State Action, WC Docket No. 04-245, Federal Communications Commission.

[69] Rodgers, Will. "Z-Tel CEO Outlines Survival Strategy." Tampa Tribune. July 29, 2004 <http://money.tbo.com/money/MGBB7FC68XD.html>.

[70] AT&T press release. July 22, 2004. <http://www.att.com/ir/tn/>.

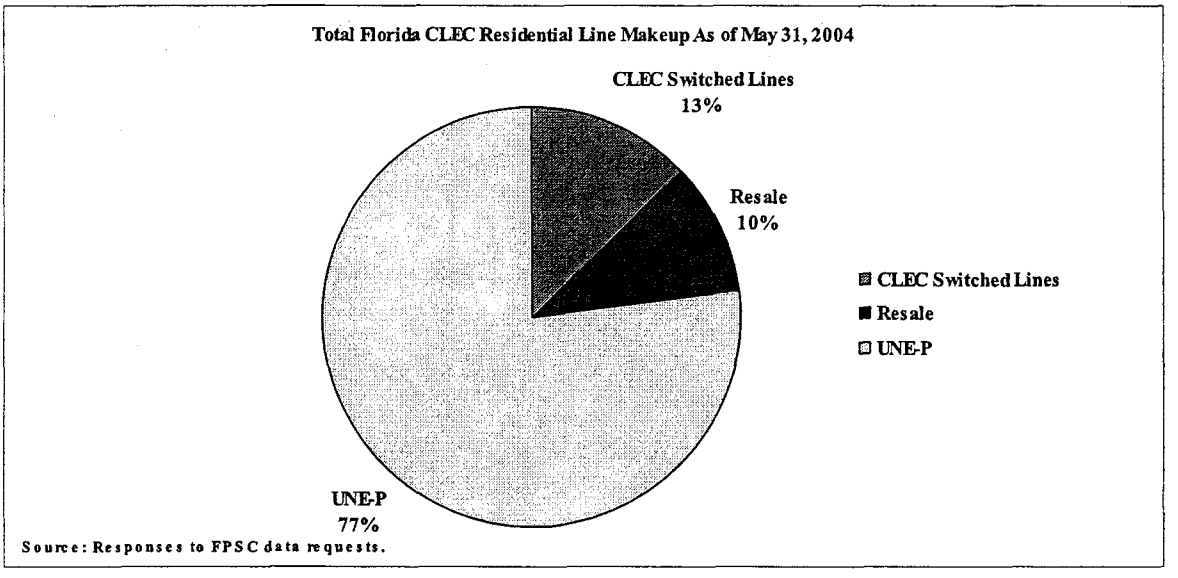
[71] "AT&T announces Third-Quarter 2004 Earnings." AT&T Press Release. October 21, 2004.

2004, that the company "may be forced to raise residential phone services prices in some markets and pull out of others, and has reduced its sales efforts pending clarity on its future pricing structure."[72]

Past Commission reports on competition have highlighted the importance of UNE-P to a CLEC's ability to compete for mass market customers. By combining switching with the loop and transport elements, UNE-P allows CLECs to compete with little or no investment in facilities (using resale to serve customers also requires no investment in facilities). CLECs in Florida, such as AT&T, MCI and Supra, have relied mainly on UNE-P to serve the mass market and have built a substantial customer base by offering unlimited local and long distance services for a single discounted price.

Figure 11 illustrates that a majority of CLECs in Florida have chosen a UNE-P strategy, as opposed to a UNE-L or total facilities-based strategy. Currently, 77% of CLEC residential lines are served via UNE-P, while another 10% are served through resale. Only 13% of CLEC residential lines are served through CLEC switches, and the majority of these lines are provisioned over cable company facilities that use traditional circuit switching technology.

Figure 11

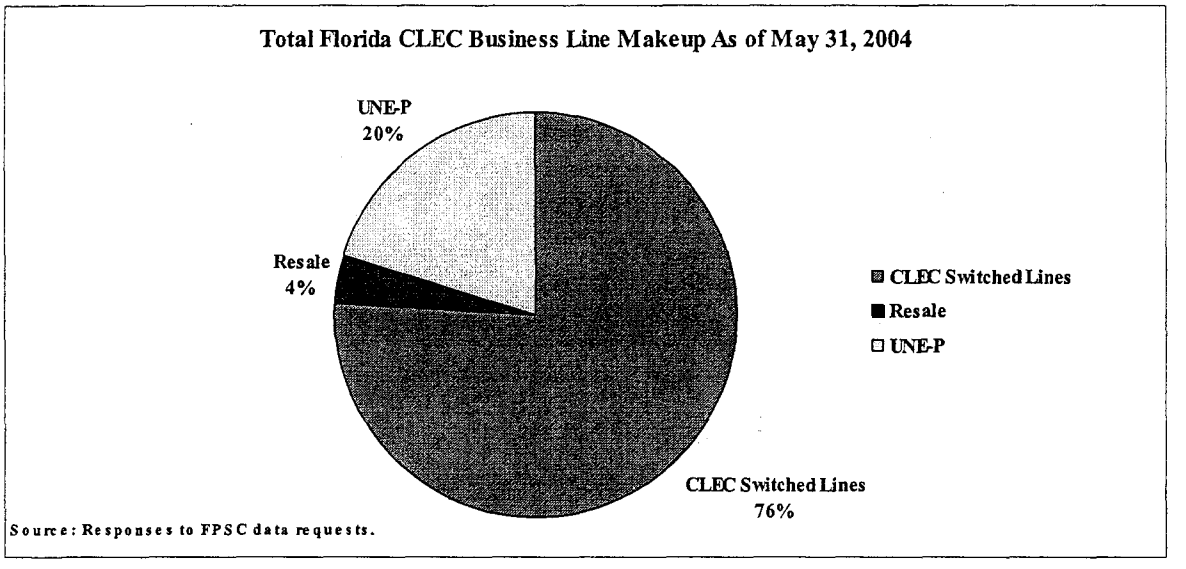


In the case of business offerings, the predominant method of service is facilities-based. These are lines served by CLEC switches and some combination of CLEC or ILEC loops and transport. Figure 12 shows that 76% of CLEC business lines are facilities-based, while 20% are served via UNE-P. Generally, these UNE-P lines are serving the small business market. Substantial increases in switching rates may make it unprofitable for some CLECs to serve such customers. The outcome of the FCC's new rules regarding UNEs on the margins faced by

[72] MCI Form 10-Q. Page 29. August 9, 2004. <http://global.mci.com/about/investor_relations/sec/>.

facilities-based CLECs is unclear. In particular, CLECs providing their own switching could still be subject to price increases for high-capacity loops, transport and enhanced extended links (EELs).

Figure 12



3. Market Shifts

As discussed in this report, major developments in the technological, competitive and regulatory arenas are contributing to significant shifts in the structure of the telecommunications market. The traditional telephone and cable networks have evolved into broadband digital networks capable of providing various combinations of voice, data and video applications. The competitive front in the voice market has progressed from not only an ILEC/CLEC focus, but to one that also takes into account the growing presence of intermodal competition. The Section 271 process of the 1996 Act also broadened the scope of competitive offerings as RBOCs reentered the market for long distance services, subject to an extensive pre-qualification process by the FCC and state commissions. In addition, the FCC's final unbundling rules will likely result in many CLECs shifting business plans away from UNE-P based offerings.

In this rapidly developing telecommunications marketplace, there may be an increased level of uncertainty regarding the future structure of competition. Some industry analysts believe incumbent voice providers could acquire market power in wireline communications. Others maintain that the future market for telecommunications could be concentrated around a small group of ILECs and cable providers resulting in reduced incentives for competition. However, some analysts believe that intermodal competition from wireless and cable providers will prevent such market contingencies. These analysts point to increasing price competition taking place among intermodal providers as evidence that it is already doing so. While the evidence of extreme outcomes, such as market power, is lacking, there is likely to be much debate about the future of telecommunications competition as the market evolves.

This chapter discussed certain data relating to ILEC and CLEC market share trends in Florida's market for wireline telephony. Specifically, the data cover certain shifts in residential and business share between Florida ILECs and CLECs. The following chapter discusses some of the macro trends which may be underlying market shifts in Florida, as well as the nation.

CHAPTER IV: ADVANCED COMMUNICATIONS LANDSCAPE

A. INTERMODAL COMPETITION

As discussed previously, major transitions taking place in the telecommunications industry have impacted the competitive pressures on providers seeking to serve mass-market consumers. Technological innovation and market conditions (e.g., limited pool of venture capital or financing for an increasing number of competitors) will undoubtedly impact how firms compete (and which firms win or lose). Some analysts predict that providers of traditional voice communications will face substantial competitive pressures (i.e., some firms will not survive) as intermodal providers emerge to serve mass-market consumers without reliance on ILEC telephone networks. Cable, wireless and other intermodal providers could bring in the anticipated vibrant, facilities-based competition that would forever change the face of the telecommunications market. As the Wall Street Journal recently reported:

> The cable and telecommunications industries are raiding each other's turf at such a dizzying pace that the lines between them are blurring like never before. Indeed, it's becoming almost impossible for communications companies to stay competitive without branching into a whole new business. Nearly all of the large cable operators in the U.S. are offering phone service over the Internet.[73] All of the regional Bells have formed partnerships with satellite operators to offer TV service, as SBC has done, and some, like Verizon, are building fiber-optic networks so they can offer television signals over their phone lines. For consumers, the competition means lower prices and more choice...[74]

In an August 2004 interview, Sprint CEO, Gary Forsee, predicted substantial competition from the cable and wireless sectors, stating:

> What the government has to pay attention to is overall competition. Is cable going to be able to gain traction and become a viable competitor to the RBOCs? I think that's probably the case. Wireless is a real competitive threat to the local-access business. The Vonage types, the power-line types, those are niches around the edge and will gain some share, but real competition will come from cable and wireless.[75]

A Wall Street Journal article bluntly noted the threat these other sources – cable, wireless, and VoIP – are posing to traditional telecommunications providers. "The cable industry's push into the phone business and a torrent of innovations such as Internet calling and

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[73] Although there is a common misconception that all VoIP traffic travels over the Internet, the large cable companies actually offer VoIP over cable plant using Internet protocol.

[74] Latour, Almar, "Free for All," The Wall Street Journal, September 13, 2004, p. R1.

[75] Pappalardo, Denise and Paul McNamara. "Forsee Talks Telecom." Network World. August 9, 2004. <http://www.nwfusion.com/>.

advanced wireless technology are threatening the foundations of the nation's $300 billion telecom industry."[76] The scale of competitive rollout is an unprecedented challenge to ILECs. Comcast plans to have 95% of its cable network VoIP-capable by 2006. This would provide the ability to offer VoIP service to approximately 40 million homes.[77] Time Warner plans to have its Digital Phone service available to the nearly 19 million homes in its service territory by the end of 2004.[78] Cablevision already offers voice service throughout its service territory of over four million households[79] and Cox Communications currently has over one million customers using traditional and Internet-based voice service.[80]

Fortunately for consumers, the competition from these non-traditional voice providers is resulting in lower prices in some areas:

> In response to $29.95 digital-subscriber-line phone (DSL) service from telecom rival Verizon, Cablevision decided to do a little discount pricing itself. In June, the nation's sixth-largest cable operator, with 3 million subscribers in New York, New Jersey, and Connecticut, began temporarily offering new customers a "triple play" bundle of high-speed Internet service, unlimited phone service, and, of course, digital cable TV, for $90 per month for the first year. That dramatically undercut Verizon's combined voice, DSL, and satellite TV package of $135.[81]

The following discussion centers on these emerging intermodal competitors and the opportunities they bring to the market.

1. Voice over Internet Protocol

Voice over Internet Protocol (VoIP) is a technology that uses a broadband connection for voice communications over the public Internet or private IP-based networks. Although VoIP has been around for nearly a decade, entering 2003 it was still a relatively obscure technology used

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[76] Brown, Ken and Almar Latour. "Heavy Toll: Phone Industry Faces Upheaval as Ways of Calling Change Fast." Wall Street Journal. August 25, 2004. p. A1.

[77] Hibbard, Justin. "Comcast's Virile VOIP Story." Light Reading. May 27, 2004. <http://www.lightreading.com/document.asp?doc_id=53568&site=lightreading>. Accessed November 8, 2004.

[78] Greene, Tim. "Supercomm keynote: VoIP has Potential For Cable Companies." Network World Fusion. June 23, 2004. <http://www.nwfusion.com/edge/news/2004/0623sccable.html>. Accessed November 8, 2004.

[79] Maiella, Jim. "Cablevision Announces First Widescale Digital Voice-Over-Cable Deployment." Cablevision Website, Corporate Information. November 11, 2003.

[80] Senia, Al. "Exclusive: Cox Decides VoIP is Ready for Prime Time." America's Network Enews. September 13, 2004. <http://www.americasnetwork.com/americasnetwork/article/articleDetail.jsp?id=122134>. Accessed November 8, 2004.

[81] Pethokoukis, James. "War of the Wires." U.S. News & World Report. Sept. 27, 2004. <http://www.usnews.com/usnews/issue/040927/tech/27cable.htm>.

mainly by tech-savvy individuals for computer-to-computer voice communications. VoIP gained substantial momentum during 2003 as start-up companies like Vonage, Packet8 and Net2Phone began offering VoIP service that provided much of the functionality of traditional telephone service. Subscribers could make calls using a standard handset plugged into a device connected to the customer's broadband line, and call quality was much improved.

VoIP's momentum has grown since 2003 as signalled by a dramatic increase in subscribers and numerous service launch announcements by major cable Multiple System Operators (MSOs).[82] As year 2004 has progressed, VoIP's momentum has increased such that it appears to have made the transition from a technology-driven to a market-driven service.[83] Vonage has emerged as a market leader in 2004 with approximately 215,000 subscribers and an average of 10,000 new VoIP lines added per month.[84] In perhaps a more significant signal of VoIP's emergence, major MSOs have launched an all out assault on the market with aggressive schedules for VoIP service rollouts over the next two years. (See discussion of cable telephony later in this chapter, in Section 3.) The MSO rollouts are significant in several respects. In communities where MSOs offer service, subscribers have been signing up at a rapid pace, and some industry analysts expect these companies to gain the lead quickly over alternative voice providers like Vonage.[85] Moreover, if the MSOs meet their timetables, service will be available to a significant percentage of the nation's households by the end of 2006.

Adding further to VoIP's momentum, traditional telephone companies have entered the race. Verizon,[86] the nation's largest RBOC, and AT&T,[87] the largest IXC and CLEC, have launched service nationwide. Another RBOC, Qwest, also has announced that it will roll out business services nationwide by year-end and residential services thereafter.[88] Additionally, AT&T is not the only major CLEC entering the fray. Covad also sees a future in VoIP as it

[82] An MSO is a company that operates more than one cable TV system.

[83] "VoIP Finds Its Sweet Spots – You May Be Surprised Where." Connecticut Research, Inc. <www.connecticutresearch.net>.

[84] Vonage website. <http://www.vonage.com/>.

[85] Yankee Group press release. August 2, 2004.

[86] Verizon. "Verizon Rings In Next Generation of Voice Services With VoiceWing Broadband Phone Service." News Release. July, 22, 2004. <http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=86115>. Accessed November 8, 2004.

[87] AT&T. "AT&T Introduces New Residential VoIP Plan." News Release. October 14, 2004. <http://www.att.com/news/item/0,1846,13281,00.html>. Accessed November 8, 2004.

[88] Qwest. "Qwest Launches Integrated Voice and Data Service Using VoIP Technology." Press Release. October 4, 2004. <http://www.qwest.com/about/media/pressroom/1,1720,1604_archive,00.html>. Accessed November 8, 2004.

plans to launch service in all 100 of its MSAs by the end of 2004.[89] MCI also has stated its intention to offer mass market VoIP service, but has not yet announced a launch date.[90]

As VoIP gains momentum, other ILECs may see a need to have their own VoIP offerings in order to compete. Offering VoIP may have both offensive and defensive purposes. ILECs can take the offensive by crossing territorial boundaries to compete for customers, because service can be provided over any broadband connection. Defensively, VoIP offerings may be needed to fight off the very real threat from cable companies' newer networks and triple-play offerings.

VoIP's impact on both the competitive and regulatory landscapes will be significant. Some experts believe that VoIP has the potential to become the long-awaited 'killer app' that may spur further broadband growth. Additionally, the technology may represent "the most significant paradigm shift in the entire history of modern communications, since the invention of the telephone," said FCC chairman Michael Powell earlier this year to journalists at the World Economic Forum.[91] As if to show he was not exaggerating, Chairman Powell re-emphasized that statement in a prediction to U.S. telecommunications groups that "a wave of competition from internet-based telephone calls would turn the industry on its head."[92]

The rapid growth of alternative providers like Vonage is possible, because VoIP can be provisioned without investment in extensive infrastructure; service can ride on broadband infrastructures built out by other companies. Low capital requirements will help fuel growth that by some estimates is expected to capture some 17.5 million users, about 16% of U.S. homes, by the end of 2008.[93] (See Figure 13) The majority of these are expected to be served by cable companies,[94] because their ubiquitous networks extending to customer premises and triple-play service offerings could provide a significant advantage over other alternative providers. VoIP may be a key weapon in cable's bundled service offerings in an all-out war to win consumers away from ILECs.

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[89] Covad. "Covad Launches Voice over IP Services Based on Cisco Equipment that Provides Enhanced Performance to Customers Nationwide." News Room. August 31, 2004. <http://covad.com/companyinfo/pressroom/pr_2004/083104_news.shtml>. Accessed November 8, 2004.

[90] MCI. "MCI and Time Warner Cable Partner to Deliver Next Generation, IP-Enabled Communications." Press Release. December 8, 2003. <http://consumer.mci.com/cablevoice/timeWarnerPR.jsp>. Accessed November 8, 2004.

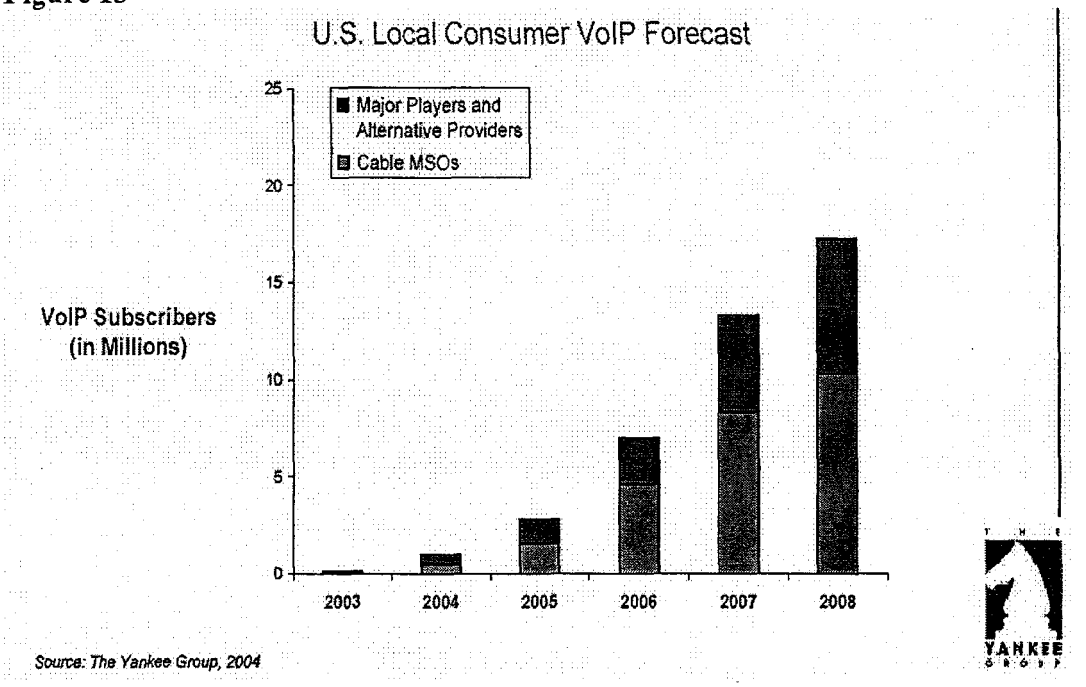
[91] Statement by FCC Chairman Michael K. Powell at the World Economic Forum in Davos, Switzerland on January 22, 2004.

[92] Remarks of FCC Chairman Michael K. Powell at the NCTA Convention on May 4, 2004.

[93] The Yankee Group news release. August 30, 2004.

[94] Ibid.

Figure 13



VoIP appears to be making significant inroads into the business market as well. According to Gartner analysts, VoIP is moving toward mainstream acceptance. While about 15% of all telephones shipped to businesses today use VoIP, shipments are expected to exceed 50% by 2006. Lower cost is an important component in adopting IP telephony systems and most enterprises are waiting for replacement cycles to remove older digital and analog telephone systems. The results of a ZDNet survey of over 400 IT professionals reveal that one third have paved the way for VoIP by converging a significant part of their voice and data networks. In addition to cost savings and integrated collaboration features such as videoconferencing, the benefit of increased productivity is cited as a key factor in adopting IP telephony.[95]

The proliferation of VoIP raises some potentially thorny regulatory issues that are under considerable debate. Some state utility commissions, such as California, Minnesota and New York, have asserted jurisdiction over VoIP services, although these rulings have been challenged in the courts. In Florida, the legislature found in 2003 that the provision of VoIP free of unnecessary regulation, regardless of provider, is in the public interest.[96] The Florida legislature specifically excluded VoIP from the definition of telecommunications service for purposes of regulation by the Commission. This exclusion is subject to the reservation of rights and obligations of any entity with respect to payment of access charges or other intercarrier compensation, if any, related to VoIP. Recently, the Commission submitted comments to the FCC that a national policy framework, consistent with Florida's deregulatory approach, would

[95] Farber, Dan. "Top Strategic Technologies for 2005." April 2004.

[96] Chapter 364.01(3), Florida Statutes.

best ensure that this new consumer-friendly technology is not squelched by a patchwork of varying state regulations.

At the federal level, both the U.S. Senate and House of Representatives have introduced legislation on the appropriate regulatory framework for VoIP calls. While bills in both chambers would prohibit states from extending their jurisdiction over VoIP, the Senate Committee on Commerce approved a bill that would allow state regulation in three areas: universal service, 911 services, and access charges. House legislation would give the FCC exclusive jurisdiction over VoIP in those three areas. Congress also has indicated interest in a complete rewrite of the Telecommunications Act that would address VoIP and other important issues. Meanwhile, the FCC may preempt state regulation of VoIP in a proceeding it currently has underway. Underscoring the magnitude of the proceeding, Chairman Powell stated that it "is really the curtain going up on a new era of communications" and "is the most important item in communications history, in some ways."[97] Other issues under consideration at the FCC deal with access of VoIP subscribers to emergency 911 services and law enforcement access for wiretapping under the Communications Assistance for Law Enforcement Act (CALEA).

One controversial regulatory issue is that VoIP providers currently do not pay many of the federal and state taxes and charges imposed upon traditional telephone companies. Telecommunications taxes are a significant source of state revenues, and states may seek to impose "old" taxes on this "new" technology. Other fees that currently do not apply to VoIP are Universal Service charges used to keep rates affordable in high-cost service areas and to subsidize low income subscribers. The debate over whether or not VoIP providers should pay the same taxes and fees as other voice providers will likely intensify as more voice traffic migrates off the PSTN and onto IP networks. At this point, it is unknown how and when the VoIP regulatory issues will be resolved.

With the migration of circuit-switched to packet-switched networks and advancements in VoIP protocols, VoIP may eventually reshape the entire competitive telecommunications landscape as we know it today. This reshaping, however, will take time as standardization of protocols and procedures will be needed for networks to interoperate.[98] Additionally, because existing data networks are designed for delivery of data traffic, not time-sensitive voice traffic, emphasis continues to be on improving ways to ensure optimal voice traffic delivery through enhanced routing protocols[99] and bandwidth management applications that shape, prioritize, compress and accelerate traffic to give real-time voice traffic higher quality and reliability than other types of traffic.[100]

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[97] Statement by FCC Chairman Michael K. Powell, IP-Enabled Services, WC Docket No. 04-36 (rel. March 10, 2004).

[98] Taaffe, Quida. "AT&T Aims to Get an Edge with Network Upgrade." September 2003. Accessed Sept 15, 2003.

[99] Lancaster, Tom. "Routing and Switching: OSPF Configuration." May 2004. Accessed May 11, 2004.

[100] Rendon, Jim. "Engineering VoIP Savings with Bandwidth Management." April 2004. Accessed April 26, 2004.

2. Wireless

Demand for wireless telephone service continues to grow, and some of this growth appears to be occurring at the expense of local exchange company access lines. According to the FCC, the number of mobile wireless subscribers nationwide has grown 5% since 2002, with subscribership at 54%[101] of the U.S. population as of December 31, 2003. In contrast, local exchange companies saw another 6.1 million drop in access lines nationwide in 2003, a 3.3% decline from the previous year.[102] While it is unknown what share of wireline losses are attributable to wireless, a growing number of wireless subscribers either see wireline service as unnecessary, or consider their wireless telephone to be their primary telephone. The FCC concluded in a recent study while evaluating the merger between Cingular and AT&T Wireless that while the switch from wireless to wireline is a fairly recent occurrence and is not widespread, it has the potential to become a "substantial source of facilities-based competition in the future."[103]

It is yet to be seen whether there will be widespread acceptance of wireless as a substitute for wireline. The FCC has found that, "...Consumers tend to use wireless and wireline services in a complementary manner and view the services as distinct because of differences in functionality."[104] Currently, about 7.5 million Americans use wireless telephones as their only telephones.[105] According to a report issued by In-Stat/MDR, 14.4% of U.S. consumers currently use a wireless telephone as their primary telephone.[106] Of the remaining 85.6% still using landline as their primary telephone, 26.4% of those would consider replacing it with wireless. This signifies considerable potential for wireline displacement over the next few years.[107] In-Stat/MDR predicts that by 2008, nearly a third of all U.S. wireless subscribers will no longer have a landline in their homes.[108] This trend seems to be confirmed by Florida consumer surveys conducted for this Commission by the University of Florida Bureau of Economic and Business Research (BEBR). These surveys reveal that a growing number of Florida's residential subscribers are considering dropping traditional wireline service in favor of wireless. Currently, 32% are considering the switch (Figure 14).

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[101] FCC Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Radio Services, *Ninth Report*. FCC 04-216. Released September 28, 2004.

[102] FCC Report on Local Telephone Competition: Status as of December 31, 2003. Released June 2004.

[103] FCC Memorandum Opinion & Order. FCC 04-255. Paragraph 242. Released October 26, 2004.

[104] FCC Memorandum Opinion & Order. FCC 04-255. Paragraph 239. Released October 26, 2004.

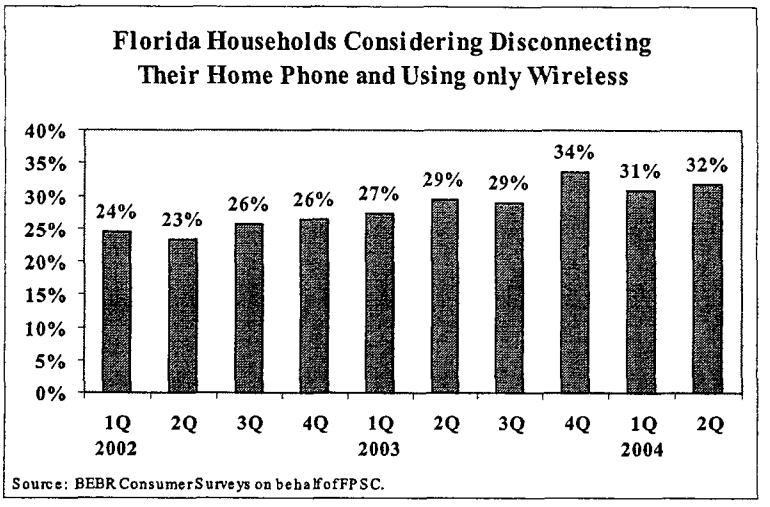
[105] <http://www.myrateplan.com/wireless/knowledge/totally.php>. CTIA cited as source.

[106] This statistic only shows those that use wireless telephones as their primary telephones. This does not necessarily mean that they have disconnected their landline connection.

[107] Skedd, Kirsten. "Landline Displacement to Increase as More Wireless Subscribers Cut the Cord." InStat/MDR Press Room. February 25, 2004. <http://www.instat.com/press.asp?Sku=IN0401644MCM&ID=895>. Accessed May 3, 2004.

[108] Ibid.

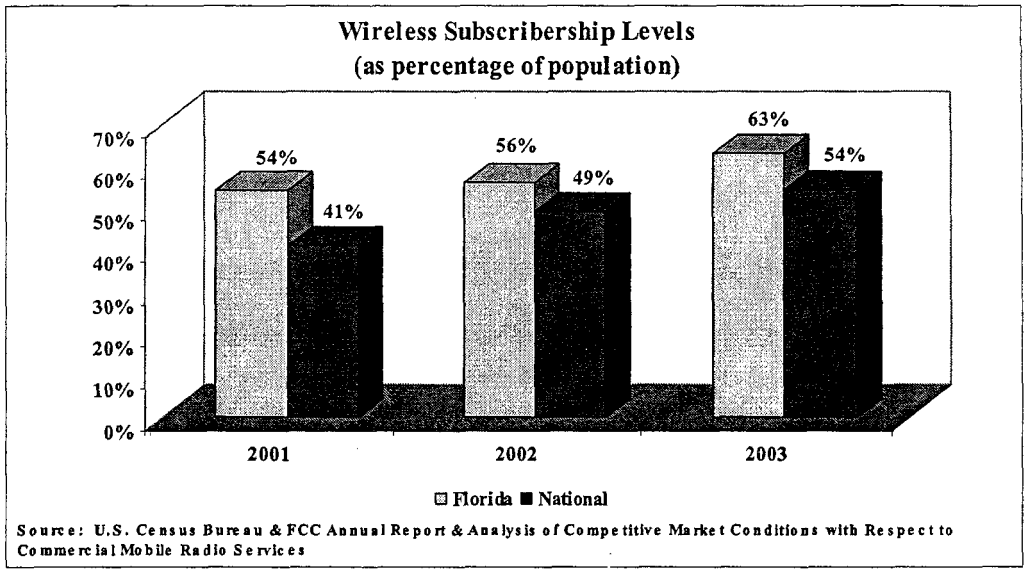
Figure 14



Following the national trend, Florida wireless subscribership grew from 56% in 2002 to 63%[109] in 2003. Subscribership levels in Florida remain higher than the national average, which may indicate that Florida local exchange companies are more vulnerable to wireless substitution. Figure 15 reflects FCC and census data comparing Florida subscribership to national subscribership levels for the years 2001, 2002, and 2003.

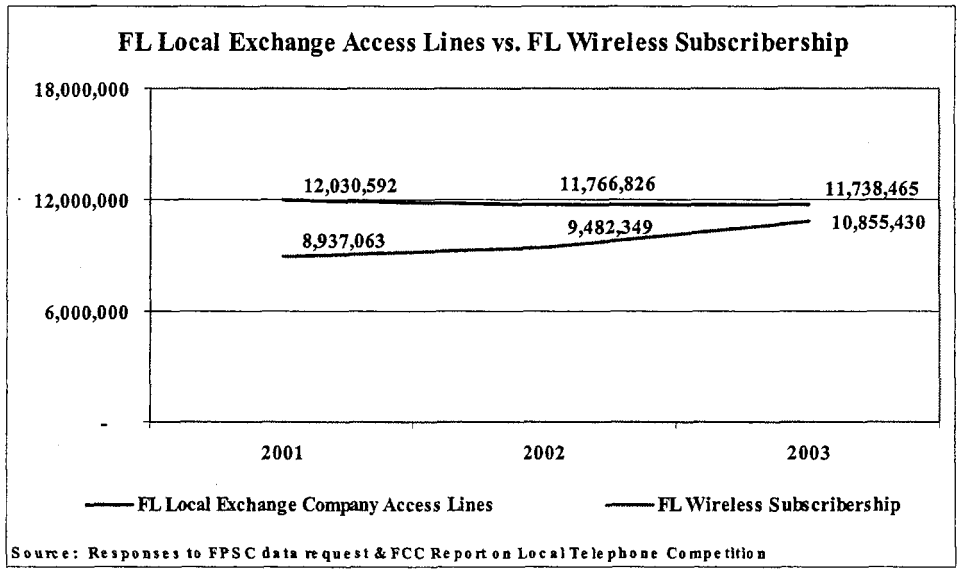
[109]Calculation based on Total Population from the February 2004 FL Demographic Estimating Conference as reported by the Florida Legislature, Office of Economic and Demographic Research and Mobile Wireless Subscribership as reported in the FCC Report on Local Telephone Competition: Status as of December 31, 2003. Released June 2004.

Figure 15



While the number of wireless subscribers has grown to 10,855,430, an increase of almost 1.4 million, local exchange company access lines in Florida have slowly declined since 2001.[110] However, it is unknown exactly how much of the wireline displacement is attributable to wireless substitution. (Figure 16)

Figure 16



[110]FCC Report on Local Telephone Competition: Status as of December 31, 2003. Released June 2004.

The wireless industry's significant growth in revenues and displacement of wireline minutes of use (MOU) also testifies to its impact on the telecommunications landscape. Wireless revenues nationwide have increased from approximately $482 million in 1985[111] to over $88 billion in 2003.[112] Wireless MOU showed similar dramatic increases over the same period. According to research by the Yankee Group, U.S. wireless subscribers used on average 490 minutes per month in 2002, surpassing the 480 minutes per person each month for wireline service.[113] According to the FCC's 9th Annual Report on wireless competition, wireless usage had further increased to 500 MOU per month by the end of 2003.[114] The FCC's 9th Annual Commercial Mobile Radio Service report estimated that 23% of voice minutes in 2003 were wireless. This is an increase of 16% since 2000.[115] The displacement of wireline MOU with wireless usage is seen most dramatically when comparing long distance calls. Users reported that they now use their wireless telephones to make 43% of long distance calls.[116]

Wireless service is becoming more desirable due to attractive pricing plans and a broad array of services made possible by technological innovation in wireless handsets and wireless networks. Wireless now provides most of the same options as wireline service with the added benefits of mobility and new technologies such as e-mail, Internet access and text messaging that are exclusive to wireless service. Technological innovation has further stimulated consumer demand through introduction of wireless handsets that also can be used as a camera, a computer and to watch TV or videos. The industry is also moving to integrate wireless with wireline service. AT&T is working with Sprint on trials of VoIP-enabled Wi-Fi handsets that would run over AT&T's new CallAdvantage VoIP service. Results of the trials are at least 18 months out, however.[117] Deployment of third generation (3G) high-speed wireless networks have made these features and services possible. Furthermore, deployment of next generation networks with much higher bandwidth are not far off. The speed of these networks should further stimulate demand by greatly enhancing the consumer's experience when using bandwidth intensive services.

The benefits of the flourishing wireless competition appear evident as wireless carriers battle to gain and keep customers through a steady stream of unique service plans and lower

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[111] FCC Report on Local Telephone Competition: Status as of December 31, 2003. Released June 2004.

[112] FCC Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Radio Services, *Ninth Report.* FCC 04-216. Released September 28, 2004.

[113] Rosenbluth, Todd. "Time to Hang Up on SBC." BusinessWeek Online. June 27, 2003.

[114] FCC Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Radio Services, *Ninth Report.* FCC 04-216. Released September 28, 2004.

[115] Ibid.

[116] Griffin, Katie. "U.S. Consumers Long Distance Calling Is Increasingly Wireless, Says Yankee Group." Yankee Group News Releases. March 23, 2004. <http://www.yankeegroup.com/public/news_releases/news_release_detail.jsp?ID=PressReleases/News_03232004_cts_2.htm>. Accessed June 21, 2004.

[117] "AT&T to Offer Wireless Services to Consumers and Businesses Nationwide Through Agreement with Sprint." AT&T News Release. May 18, 2004.

prices. For example, AT&T Wireless[118] is marketing a plan that includes 1,000 anytime minutes and unlimited nights and weekends for $40. Similar plans had cost $10 to $20 more, and AT&T now begins nighttime minutes at 7 p.m., 2 hours earlier than in previous plans.[119] Sprint PCS recently announced its new Fair & Flexible Plan, which eliminates overage charges by automatically adjusting a consumer's monthly rate plan based on their usage patterns.[120] Other companies offer their own unique features such as push-to-talk and free mobile-to-mobile calls. These examples of price cutting and greater flexibility show little signs of abating as competition further heats up.

Wireless service is becoming indispensable to consumers, and its popularity is not being ignored by wireline providers. Many ILECs now offer wireless as part of their bundled packages. Combining wireless with local/long distance, broadband, and satellite TV services gives local exchanges companies a "home run" package to counter the triple play offerings of cable companies. In response, some cable companies are attempting to counter telephone company entry into their core video market by adding wireless to their vaunted triple play set of video, broadband and voice services.[121] Some in the CLEC community also consider wireless to be a strategic addition to their portfolio of services. AT&T Wireless is now looking to re-enter the game by reselling wireless service through Sprint Corp.

Consumers now find it easier and more appealing to switch from one wireless carrier to another, or to wireless-only service thanks to local number portability. The FCC ordered wireless carriers to implement local number portability in the 100 largest MSAs effective November 24, 2003. This enables customers to keep their wireless telephone numbers when switching from one wireless carrier to another. The local number portability requirement for all other areas went into effect May 24, 2004. According to the FCC's rules, wireline telephone companies, including both ILEC and CLEC providers, also had to implement wireline to wireless number portability. Currently, the most porting activity is taking place between customers wanting to switch from one wireless provider to another. However, according to Neustar, a number portability administrator, up to 10% of the nine or ten million numbers ported in 2004 will be from landline carriers to wireless carriers.[122] Porting volume from wireline to

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[118] AT&T Wireless recently merged with Cingular.

[119] Bialik, Carl & Jesse Drucker. "AT&T Wireless Lowers Prices on Plans, Wireless Telephones." The Wall Street Journal Online. April 1, 2004.<http://online.wsj.com/article_print/0,,SB108078083153471029,00.html>. Accessed April 5, 2004.

[120] Sprint PCS Service Plans.
http://www1.sprintpcs.com/explore/servicePlansOptionsV2/PlansOptions.jsp?FOLDER%3C%3Efolder_id=1477207&CURRENT_USER%3C%3EATR_SCID=ECOMM&CURRENT_USER%3C%3EATR_PCode=None&CURRENT_USER%3C%3EATR_cartState=group&bmForm=SFPSprintZipCodeToCSA&bmFormID=1099497473589&bmUID=1099497473589&bmHash=04a51dc4b72704c228a0ec9c4817abc6950e0171>. Accessed November 3, 2004.

[121] Drucker, Jesse. "How AT&T Got Back in the Wireless Game." The Wall Street Journal Online. May 30, 2004. <http://online.wsj.com/article/0,,SB108587513619824627,00.html>. Accessed June 3, 2004.

[122] Engebretson, Joan. "ANALYSIS: Number Portability Trends Underscore Line Loss Concerns." America's Network Enews. June 14, 2004.
<http://www.americasnetwork.com/americasnetwork/article/articleDetail.jsp?id=98835>. Accessed June 15, 2004..

wireless reached a peak of 79,080 telephone numbers in March of 2004.[123] When asked, consumers stated convenience as the number one reason for considering dropping their landline and going wireless only.[124]

Enhanced 911 (E911) service is a factor that consumers must consider when deciding to disconnect a landline. E911 service provides a dispatcher with additional location specific information on wireless 911 calls. The FCC considers this an imperative service for public safety and has implemented a two-phase process, to be completed by December 31, 2005, for developing and implementing this new technology. Phase I requires carriers to report the wireless telephone number and the location of the antenna that received the call. Phase II requires carriers to provide specific location data of the wireless telephone, in most cases within 50 to 100 meters of the actual telephone's location.[125] According to a report issued by the General Accounting Office (GAO), only 24 states will have Phase II implemented by the 2005 deadline. The cost of deployment is estimated to be more than $8 billion, which must be funded by wireless carriers, states, and localities.[126] While this is a difficult process, providing E911 capability may bring wireless one step closer as a viable replacement for wireline service. Florida is working hard to meet these obligations. As stated in the 2004 Annual Report issued by Florida's Wireless 911 Board, 47 counties have deployed Phase I with one or more providers and 26 counties have deployed Phase II with one or more providers.[127]

3. Cable

In 2003, there was no clear indication of exactly when the cable industry would launch its much-anticipated wide-scale rollout of voice service. A few cable companies have been in the voice business since 2000 and have gained subscribers fairly rapidly. At the end of 2003, 2.5 million customers nationwide received voice service from cable MSOs. As of the end of the first quarter 2004, the number of subscribers served by MSOs had grown to approximately 2.7 million across the country.[128] The vast majority of those subscribers, however, are served by just two companies, Comcast and Cox, using legacy circuit-switched technology. However, these

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[123] FCC Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Radio Services, *Ninth Report*. FCC 04-216. Released September 28, 2004.

[124] InStat/MDR. "Into Thin Air: Residential Wireline Erosion from Wireless and Other Access Alternatives." June 25, 2004. <http://www.instat.com/catalog/pcatalogue.asp?ID=94>. Accessed June 25, 2004.

[125] Federal Communications Commission. 911 Services page. March 10, 2004. <http://www.fcc.gov/911/enhanced/. May 10, 2004.

[126] United States General Accounting Office. *Telecommunications Uneven Implementation of Wireless Enhanced 911 Raises Prospect of Piecemeal Availability for Years to Come*. Report to the Chairman, Subcommittee on Communications, Committee on Commerce, Science, and Transportation, U.S. Senate. November 2003.

[127] Florida Wireless 911 Board Report. February 28, 2004.

[128] National Cable and Telecommunications Association website. <http://www.ncta.com/?PageID=326>.

circuit-switched offerings may have plateaued because cable companies have banked their future telephony plans on the nascent technology known as VoIP.

Many of the major MSOs were in various stages of VoIP trials in 2003, but few had launched commercial service. This past year, however, the momentum of cable telephony has shifted and the industry is in an accelerated stage of rollout. After spending nearly $85 billion since 1996 upgrading their networks from analog to digital capability, cable operators are finally beginning full-scale offerings of the much heralded "triple play" services (voice, data and video) over a single cable connection.[129] Whereas there were only a few VoIP launches planned a year ago, most major MSOs are now conducting multiple trials, and plan to stage launches of commercial service around the nation over the next three years. A few of the major MSO rollout plans follow.

- Cablevision has led the pack in VoIP deployment by making telephone service available across its entire footprint of more than 4 million homes in November 2003.[130] The company has averaged 3,200 new subscribers per week and now has more than 100,000 VoIP subscribers.[131]

- Time Warner had launched VoIP service in 16 of its markets by June 2004, and the company plans to rollout VoIP in nearly all of its 31 divisions by year-end.[132]

- Charter Communications plans to make its VoIP service available to one million homes by year-end 2004.[133]

- Cox made its first commercial rollout of VoIP service in Roanoke, Va. last December, and has plans to launch service in several more markets this year.[134]

- Comcast, the nation's largest cable provider with over 21 million cable TV subscribers,[135] plans to offer VoIP to half of its footprint by the end of 2005 and to 95% of its footprint in 2006.[136]

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[129] "Too Late to Party?" New Paradigm Resource Group, Inc. Chicago Business Wire. May 17, 2004.

[130] Maiella, Jim. "Cablevision Announces First Widescale Digital Voice-Over-Cable Deployment." Cablevision Website, Corporate Information. November 11, 2003.

[131] Breznick, Alan. "MSOs Step Up VoIP Pace, Shrug Off Vonage As Rival." Cable Datacom News. June 1, 2004.

[132] Ibid.

[133] Fitchard, Kevin. "Charter Signals VoIP Expansion with Termination Deals." TelephonyOnline.com. August 31, 2004.

[134] "WHITEPAPER: Voice over Internet Protocol: Ready for Prime Time." Cox Communications Website. May 2004.

[135] Comcast Website. Investor Fact Sheet. November 2004.

By adding voice to their portfolio of services, cable companies may expect to stem losses of customers to satellite TV and broadband Internet access competitors. Experience seems to show that bundled service offerings, especially those that include voice, significantly reduces customer defections, or churn. Cox Communications, for example, reports a 50% reduction in churn when a residential customer subscribes to all three services: cable, broadband and telephony.[137] Research also has shown that customers want a single bill for all services.[138] Data from this Commission's surveys show that 52% of respondents prefer to have all communications services provided by one company.

Many cable companies and industry analysts expect cable VoIP offerings to present a formidable challenge to telephone company dominance of the residential local voice market. Time Warner captured 10% of telephone households just 10 months after rollout in Portland, Maine,[139] and aims to capture a third of the local telephone market in its Charlotte, North Carolina region within the next few years.[140] Charter is targeting a 10% penetration of telephone households within 60 days of its market launch and 30% penetration within five years, while Mediacom believes that 15% to 20% penetration can be achieved in the early stages of market launch.[141] As to industry analysts, MRG, a digital media research firm, projects that cable companies could penetrate 10% of the residential telephone market by 2007, if they act fast enough.[142] The investment firm, Goldman Sachs, estimates that telephone companies could lose 7% of residential lines to cable by 2006, and nearly 20% in the next 10 years.[143] John Hodulik, of the investment firm UBS, states "the Bells likely will lose 30% of their telephone market to cable companies over 10 years. However, losses may be limited to 15% if telecom companies can provide video, because consumers are more likely to remain with a carrier when they purchase a bundle of services."[144] According to Yankee Group estimates, there will be in excess of 12 million cable VoIP subscribers in 2008. (Figure 17)

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[136] Fitchard, Kevin. "Comcast Puts Numbers on VoIP Rollout." Primedia Publication, Telephony Online. May 31, 2004.

[137] Smiles, Elaine. Cable Telephony Today. <TMCNet.com/it/0504/specialfocus.htm>.

[138] "Comcast Pushes into Phone Service." Wall Street Journal. May 26, 2004.

[139] Nowlin, Sanford. "Time Warner Launches First Battle in San Antonio Phone Wars." San Antonio Express-News. July 16, 2004.

[140] Mildenberg, David. "Time Warner Readies Telephone Push." BizJournals. June 4, 2004.

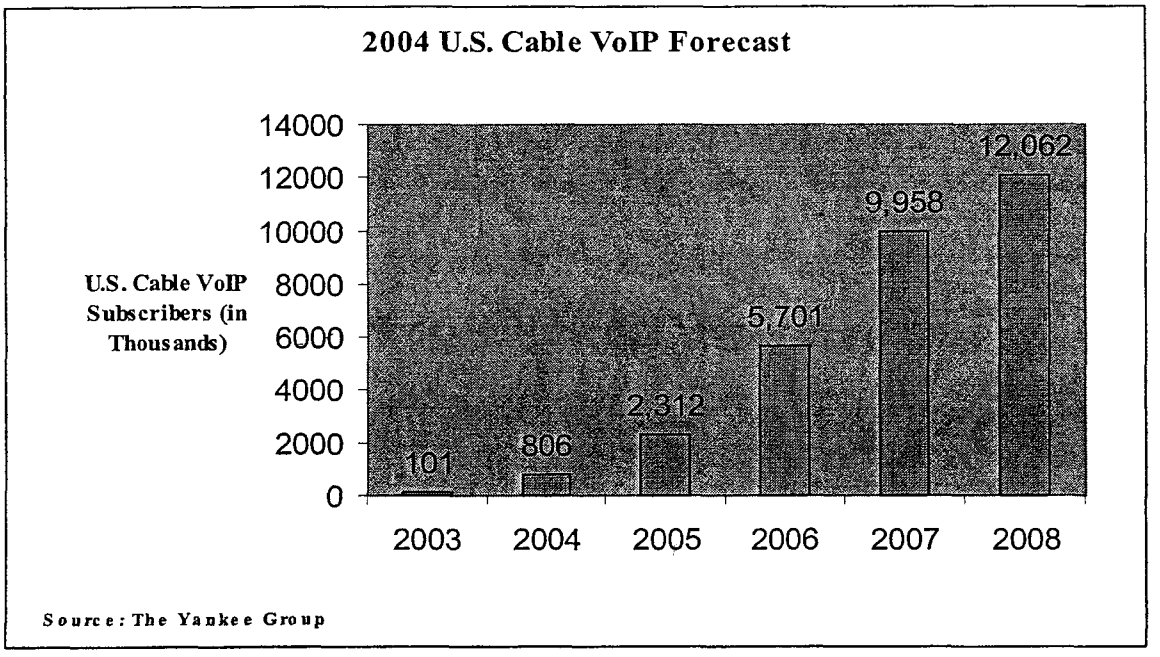
[141] Breznick, Alan. "More Major MSOs Unveil VoIP Rollout Plans." Cable Datacom News. March 1, 2004.

[142] Stroud, Michael. "Cable Guy Whupping Phone Guy." Wired News. March 11, 2004.

[143] Brown, Ken. "Cablevision to Offer Internet Phone-Call Bundle." The Wall Street Journal. June 21, 2004.

[144] Rosenbush, Steve. "Verizon: Take that Cable." BusinessWeek Online. May 14, 2004.

Figure 17



In order to stem losses of subscribers to both cable and wireless competitors, the major telephone companies, Verizon, SBC, BellSouth and Qwest, have alliances with satellite TV providers to provide their own "Triple Play" offerings. Verizon, the nation's largest telecom provider, is also pursuing cable-TV franchises in nine states, its Florida territory included. Verizon intends to supply cable TV service over fiber-optic lines directly connected to homes and offices. Their plans include digital TV, videoconferencing, and movies-on-demand by the end of 2005. SBC says it will spend $4 to $6 billion over the next five years replacing the slower copper connections in its networks with high speed fiber. This will allow SBC to market an IP-based television service being co-developed with Microsoft.[145]

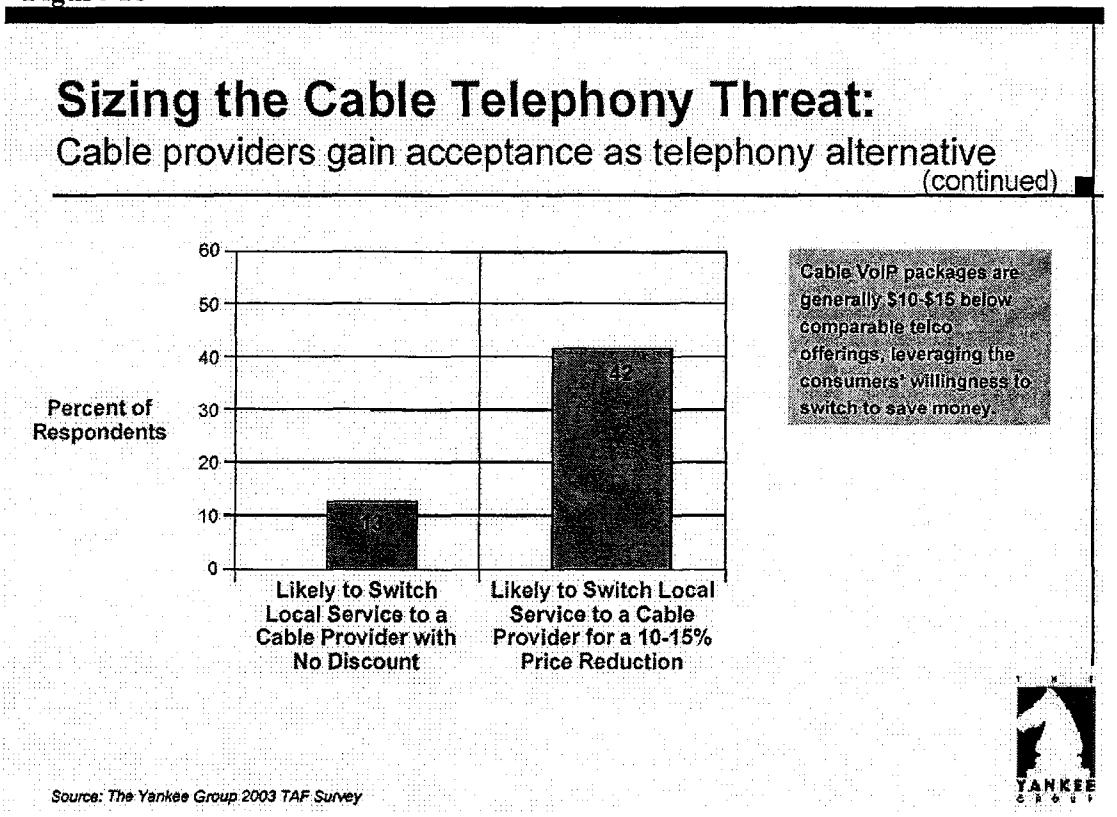
In a market where most consumers can choose between only one cable company and two satellite providers, the entry of telecom companies into cable television could be a powerful source of competition; however, many are skeptical that there will be widespread fiber-to-the-home deployment except in the distant future, because of its high rollout cost. Qwest is one Bell company that is not deploying fiber to homes in its territory, but is banking instead on other technologies, such as wireless, to deliver high-bandwidth connections at lower cost. Meanwhile, telephone company alliances with satellite TV providers may offer the best interim hope of competing with cable's triple-play offerings. SBC reported signing up 40,000 customers just one month after offering satellite TV service via its alliance with EchoStar.[146]

[145] Ewalt, David M. "New Services Stir Up Telecom Market." InformationWeek. June 28, 2004.

[146] Latour, Almar. "Bells Join Race to Offer TV." The Wall Street Journal. April 29, 2004.

Telephone companies, however, could find it painful trying to match cable's pricing for voice services. Cable company trials are confirming that VoIP-based service is less costly to deploy than circuit-switched. By offering VoIP instead of circuit-switched services, Cox has found that expenditures can be cut by 40% to 75% per customer depending on whether Cox or the customer installs necessary equipment.[147] These economies appear to be impacting the competitive landscape, enabling cable companies to attract customers by undercutting telephone company prices. As an indication of cable telephony's potential, Figure 18 shows that 42% of respondents would switch local service to a cable provider for a 10-15% price reduction.

Figure 18



One aggressive pricing strategy to date has been by Cablevision when it announced in June that it will offer unlimited local and long-distance service, along with digital cable television and high-speed Internet access for $90 a month for one year. The company's main telephone competitor in its region, Verizon, was offering a comparable package for $123.89 a month.[148] However, Verizon has countered not only Cablevision's move, but other cable firms' triple-play offerings by launching a nation-wide VoIP service for $39.95 per month, $20 cheaper than its current bundle of unlimited U.S. calling. Verizon gives further discounts if the customer

[147] Hibbard, Justin. Senior Editor. "Cox Declares VOIP Ready for Prime Time." Light Reading. May 17, 2004.

[148] Brown, Ken. "Cablevision to Offer Internet Phone-Call Bundle." The Wall Street Journal. June 21, 2004.

takes other Verizon services. As Verizon will be encroaching into the territories of the other Baby Bells, they are expected to follow suit eventually.[149]

More economies for cable may yet be seen as demand for VoIP equipment grows. Brahm Eiley, president of Toronto-based Convergence Consulting Group, a company which studies the North American cable and telecom market said, "Comcast is by far the largest cable company in North America with over 21 million customers in 35 American markets, and when a company such as this makes such a major, accelerated commitment to VoIP, that can only mean good things." Comcast's participation should drive down the cost of the equipment MSOs must obtain to provide phone service via VoIP.[150] In addition to driving down manufacturing costs, it will intensify competition by increasing customer awareness and encouraging vendors to develop superior products containing new features.[151]

Telephone companies have at least two additional reasons to be concerned about cable telephony. First, while cable's VoIP service may initially be targeted to cable broadband customers, cable giants Time Warner, Charter and Mediacom have indicated they intend to offer voice to the mass market. This means that these companies may not require VoIP subscribers also to subscribe to broadband. Other companies should follow suit, because over time there may be no reason to limit the VoIP offering to just their broadband customers. "It's a whole new reason to talk to non-subscribers or even satellite TV customers. We see the combined bundle as a real good reason to come back and consider cable as a competitor," says John Pascarelli, executive vice president of operations for Mediacom.[152]

The second cause of concern is that with the emergence of VoIP-based cable telephony, many U.S. cable companies have indicated they are considering forming a consortium to jointly offer VoIP service, organizing the way calls are carried over the IP networks, and how they connect with the PSTN. "This is more a consortium to organize the way they are going to talk to each other. It's not the creation of an enterprise that's actually going to own these calls," says Chris Risley, CEO of Nomium Inc., a potential supplier of infrastructure for a cable ENUM (Electronic Number Mapping) system.[153] Comcast, Cox, and Time Warner are among the Florida-based cable companies that have talked with Neustar, regarding the creation of a telephone-number lookup system based on the ENUM. This system would allow, for example, a call that originated on Comcast's network to connect to a telephone number on Cox's network without ever using the PSTN.[154] Cable companies may believe the creation of this system will help them to avoid the fees local exchange carriers charge to use their networks. Currently,

[149] "Verizon Dangles Cheap VoIP for US Land Grab." The Register. July 27, 2004.

[150] "Comcast commitments will speed N.A. VoIP Deployment." Cablecaster Magazine. <http://www.cablecastermagazine.com/common_scripts/dailynews/print_version.asp?id=29959>.

[151] "Comcast Pushes into Phone Service." Wall Street Journal. May 26, 2004.

[152] Breznick, Alan. Editor. "More Major MSOs Unveil VoIP Rollout Plans." Cable Datacom News. March 1 2004.

[153] Hibbard, Justin. Senior Editor. "Cable Cadre talks VoIP." Light Reading. April 13, 2004.

[154] Ibid.

under FCC rules, any calls which pass over a CLEC's network and terminate at an Internet service provider are subject to reciprocal compensation, a cost cable companies would like to avoid.[155]

Finally, Florida consumers also should benefit soon from cable's rollout of VoIP. Bright House Networks, which assumed managerial control of Time Warner's local cable operations stretching across Central Florida two years ago, is the first large cable operator in Florida to roll out VoIP service. Bright House provides cable television entertainment and high-speed Internet access to more than 750,000 customers in a nine-county area of Central Florida.[156] In July, 2004, the company announced rollout of VoIP service in Pinellas County to a limited number of customers in preparation of an eventual larger-scale rollout of IP-based service. This limited rollout was offered to several hundred customers for a 60-day trial in order for Bright House to evaluate its readiness from an operational and customer service standpoint. On August 30, 2004, Bright House announced the launch of VoIP service throughout Pinellas and Hillsborough counties and the company plans to offer service in Pasco County in September and in Hernando and Citrus counties by the end of December.[157]

The area served by Bright House could turn into one of the more hotly contested telephone markets in Florida, if not the nation. Knology, a cable TV competitor with its own network in Pinellas County, launched VoIP service in July 2004. Thus, including Verizon, three facilities-based carriers are now competing for telephone customers in Pinellas County. Verizon, in the meantime, has been researching the legal requirements for a possible launch of its own pay-TV service in Hillsborough, one of the counties served by Bright House.[158]

Other MSOs with cable networks in Florida include Cox, Comcast, Time Warner and Mediacom. Cox has indicated it will launch VoIP service in its Pensacola, Gainesville and Ocala markets sometime in 2004 and 2005. Mediacom is currently conducting a marketing and technical trial in Des Moines, Iowa, and is planning on a late 2004 launch in Iowa and possibly other markets later this year. "We're very excited with what we're seeing in the whole VoIP space," said John Pascarelli, executive vice president of operations for Mediacom.[159] While the location of those markets is unknown at this writing, Mediacom is in the process of filing for certification as a telecom provider in their six largest states, including Florida.[160]

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[155] Ibid.

[156] Bright House Networks website.

[157] Hau, Louis. "Hello, it's Bright House Calling." St. Petersburg Times. August 31, 2004.

[158] Hau, Louis. "Hello, it's Bright House Calling." St. Petersburg Times Online. June 15, 2004.

[159] Breznick, Alan. Editor. "More Major MSOs Unveil VoIP Rollout Plans." Cable Datacom News. March 1 2004. <http://www.cabledatacomnews.com/mar04/mar04-2.html>.

[160] Ibid.

B. BROADBAND

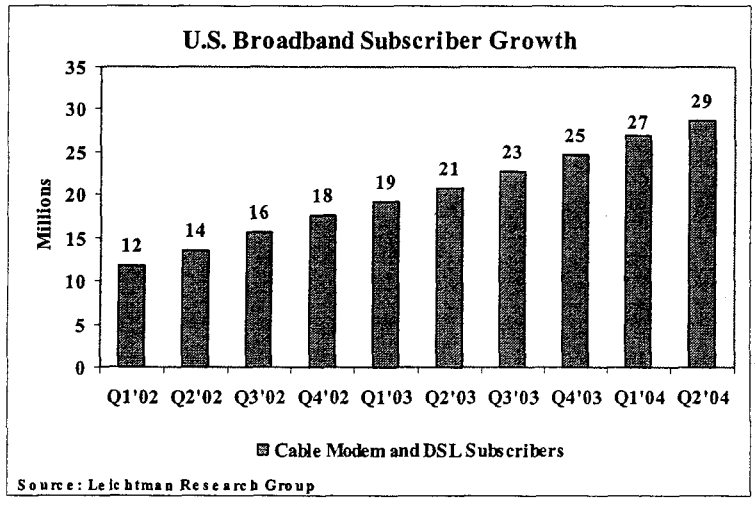
Experts agree that the future of the nation's communications networks is broadband. Whether broadband networks are wireline, wireless, or a combination of the two, they will provide the end user a single connection over which to send and receive voice, data and video communications. The previous sections discussing wireless, cable and VoIP services illustrate the importance of broadband to today's competitive market. The following section looks at today's broadband market nationally and in Florida, and provides an overview of emerging technologies that will make the future telecommunications market more dynamic and competitive.

1. Nationwide Trends in the Broadband Market

As the broadband market has progressed beyond early adopters to mass market customers, growth in Florida and throughout the United States remains strong. With this progression, focus is shifting from early concerns regarding availability and sustainability of growth to a greater interest in competitive choice, pricing, speed of service, and content. In addition, concerns remain for those (mainly rural) areas still without ubiquitous broadband availability.

As seen in Figure 19, the number of broadband subscribers in the United States continues a steady upward trajectory growing from 12 million subscribers in the first quarter of 2002 to 29 million by the end of the second quarter of 2004.

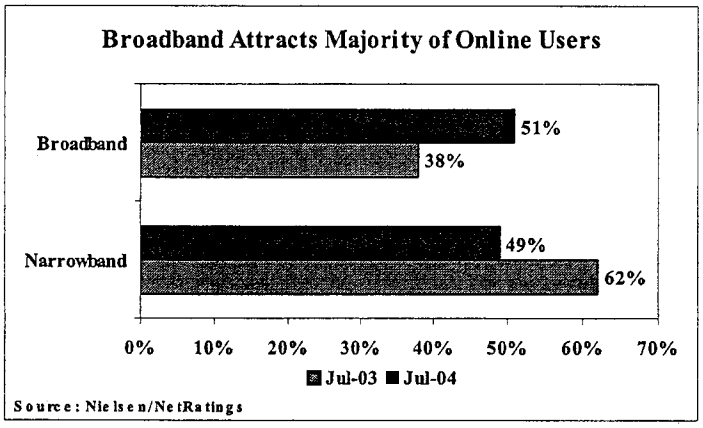
Figure 19



Nearly 25% of U.S. homes subscribe to broadband services, according to a January 2004 survey by Arbitron/Edison Media Research.[161] This is a jump from only 7% of homes in the 2001 Arbitron/Edison survey, showing considerable market development in only three years.

The swift growth and rising penetration level leads to a continuing shift in the broadband spotlight. Earlier stages of market development were characterized by concerns regarding availability on the supply side and slow growth on the demand side. Now that cable modem availability exceeds 90% of households passed and DSL coverage is expanding, the concerns regarding availability are now concentrated more specifically on the rural areas which still lack access. However, even rural areas are making headway in broadband deployment. In a survey of its rural members, OPASTCO[162] found that 99% of responding rural telephone companies were providing advanced services of at least 200 kbps. These companies were providing such service to 88% of their coverage area.[163] As to the demand side of the equation, broadband now represents more than half of U.S. Internet connections (Figure 20). According to Nielsen/NetRatings, 51% of Internet homes had broadband connections in July 2004. In comparison, 38% of Internet households had broadband connections in July 2003.[164]

Figure 20



The ongoing consumer shift to broadband is illustrated by several trends stemming from the evolving broadband competition. As cable modem and DSL providers expand, they are increasingly competing for the same customers in overlapping coverage areas. With broadband penetration levels growing, competition for the supply of new customers, generally those

[161] "Internet and Multimedia 12: The Value of Internet Broadcast Advertising." Arbitron/Edison Media Research. January 2004. <http://www.arbitron.com/home/content.stm>.

[162] Organization for the Promotion and Advancement of Small Telecommunications Companies.

[163] "New Survey Shows OPASTCO Rural Telcos Make Advanced Services Widely Available." May 10, 2004. <http://www.opastco.org/docs/051004AdvancedServices.pdf>.

[164] Vara, Vauhini. "High-Speed Surpasses Dial-Up As Top Home Web Access in U.S." The Wall Street Journal. August 18, 2004.

converting from dial-up service, is becoming more intense. DSL suppliers have typically trailed cable by a 2:1 ratio in market share. For the first time, however, DSL providers matched their cable counterparts in new subscribers added in the first quarter of 2004.[165] Growth rates for the DSL providers during the quarter outpaced cable across the board. In the second quarter of 2004, DSL providers surpassed cable in new broadband subscribers for the first time.[166] Overall, cable still leads in total subscribers with the leading cable MSOs claiming approximately 17.5 million subscribers. The top DSL providers report over 11 million broadband subscribers.[167]

The FCC's bi-annual report on high-speed services provides market share data for broadband lines as recently as December 31, 2003.[168] Nationally, 63% of broadband lines were based on cable modem service versus 34% DSL. In Florida, the report showed a closer race between the two technologies as cable made up 52% of all high-speed lines and DSL accounted for 40%. However, according to more recent survey data collected by this Commission, broadband market share in Florida is even closer.[169] Figure 21 shows a consistent trend toward market share parity between cable modem and DSL service.[170]

[165] "A Record 2.3 Million Add Broadband in First Quarter of 2004." Leichtman Research Group, Inc. May 11, 2004. <http://www.leichtmannresearch.com/>.

[166] "Broadband Internet Grows to 29 Million in the U.S." Leichtman Research Group, Inc. August 17, 2004. <http://www.leichtmannresearch.com/>.

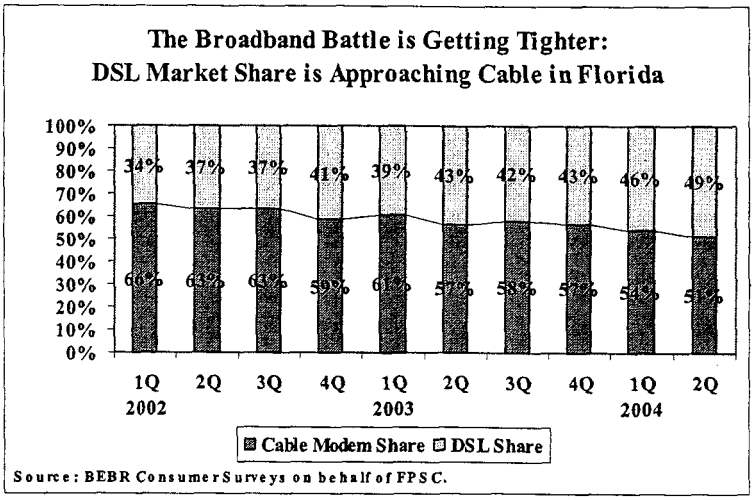
[167] Ibid. Top cable and DSL providers reported by Leichtman represent approximately 95% of all subscribers.

[168] "High-Speed Services for Internet Access: Status as of December 31, 2003." Federal Communications Commission. Released June 8, 2004. <http://www.fcc.gov/wcb/iatd/comp.html>. The FCC refers to "high-speed lines" as those that provide service at speeds over 200 kilobits per second, in either the upstream or downstream direction. "Advanced services lines" are those that provide services at speeds exceeding 200 kbps in both directions.

[169] Bureau of Economic and Business Research (BEBR) consumer surveys conducted on behalf of the Florida PSC.

[170] This figure examines only cable modem and DSL responses to calculate relative market share. Satellite, fixed wireless and other broadband access methods are not included here.

Figure 21



Pricing may be seen as a major factor in narrowing the market share gap between DSL and cable providers. "Over the past few quarters DSL providers have increased their focus on broadband with an emphasis on lower pricing," said Bruce Leichtman, president of the Leichtman Research Group.[171] Verizon and SBC, the two largest DSL providers have each offered DSL service for less than $30 per month, while many of the largest cable operators continue to charge $40 to $50 per month. Forrester Research points out that early broadband adopters were more acceptable to paying for higher-speed access, while today's more mainstream consumers are more price sensitive.[172] Forrester found that 43% of today's new broadband subscribers were motivated by the offer of a discounted package of broadband along with other telecommunications services.

As a competitive strategy, the major cable modem providers appear to have chosen to focus more on providing higher bandwidth rather than lower pricing. Comcast, Time Warner Cable, Cox Communications and RCN Corp. all increased data transmission rates in the summer of 2004. This followed an earlier round of speed boosts in fall 2003 which some saw as a response to DSL price cuts by the regional phone companies.[173]

Another interesting development in broadband is a rising concern by consumers that limited upstream broadband capacity is no longer sufficient. Upstream information transfer rates are becoming increasingly important as broadband users are creating and sharing larger

[171] "A Record 2.3 Million Add Broadband in First Quarter of 2004." Leichtman Research Group, Inc. May 11, 2004. <http://www.leichtmannresearch.com/>.

[172] Kolko, Jed. "In Broadband Game, Price Beats Speed." Forrester Research Special to CNET News.com. March 1, 2004.<http://www.news.com/>.

[173] Breznick, Alan. "MSOs Boost Data Speeds Again, Add Low-Priced Options." Cable Datacom News. September 1, 2004. <http://www.cabledatacomnews.com/>.

quantities of data and multimedia. This is a significant shift from the early dial-up Internet that was characterized by end users mainly downloading web pages or media to their computer.

Today, there is considerably more content creation in the home or small business. Content such as digital photos, digital video, music collections, peer to peer interactions, file transfers and VoIP applications all demand significant upstream capacity. Likewise, the increasing numbers of telecommuters, home offices, and small businesses depending on two-way bandwidth further highlights the importance of upstream bandwidth. As end user demands for increased upstream bandwidth are increasing, there are already signs this may be an important competitive battleground for service providers. In a May 4, 2004 press release, Verizon stated that it would increase the upload speed for its basic DSL plan to 384 kilobits per second (kbps) from the current 128 kbps. Cox Communications raised its "Preferred" cable modem service to 512 kbps upstream while maintaining the same price.[174] In a May 6, 2004 speech to investors, Qwest CEO Dick Notebart stressed the importance of upload speeds in the market today and went on to say he believed DSL had an advantage going forward in the ability to increase upstream bandwidth. Qwest's DSL Deluxe service currently offers upload capacity of 896 kbps, one of the highest available in the marketplace.[175] While cable providers may make similar claims, it is important to note the emerging contest in the area of upstream capacity.

2. The Florida Broadband Market

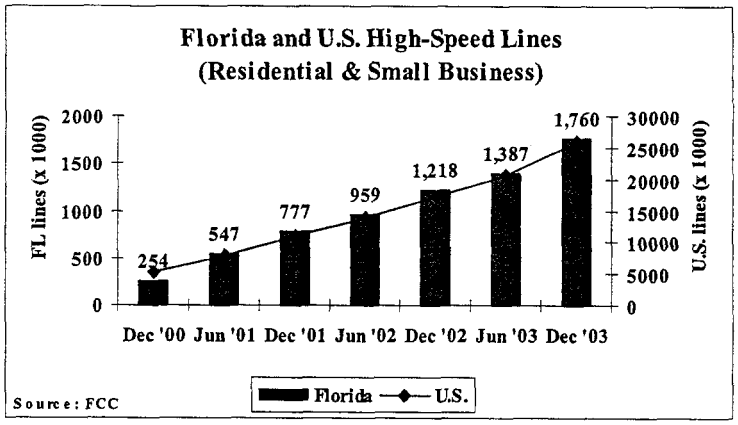
Florida's migration from dial-up to broadband Internet continues at a rapid pace. Figure 22 shows the rise in high-speed lines for Florida and the nation. By December 2003, Florida had over 1.76 million high speed lines in service to residences and small businesses. This was up from only 254,000 such lines three years earlier. This places Florida fourth nationally, behind California, New York and Texas. When looking at total high-speed lines, rather than residential and small business, Florida is third with 2 million such lines, behind only California and New York.[176]

[174] Ibid.

[175] <http://www.qwest.com/internet/>. Accessed July 21, 2004.

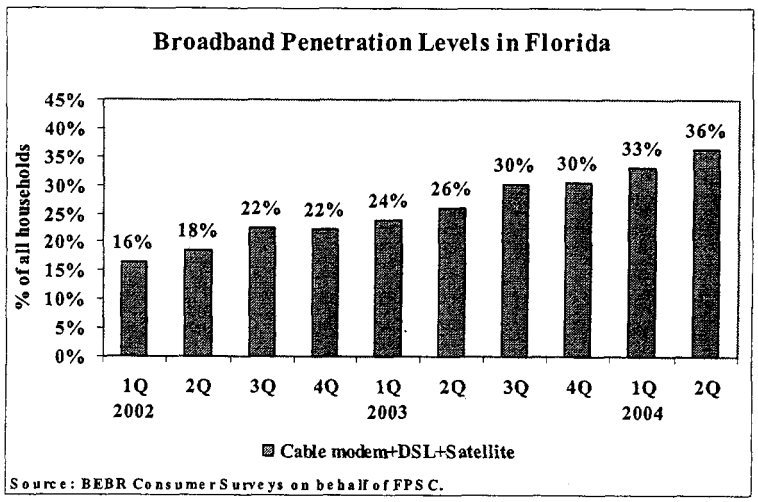
[176] FCC report on "High-Speed Services for Internet Access: Status as of December 31, 2003." Table 7.

Figure 22



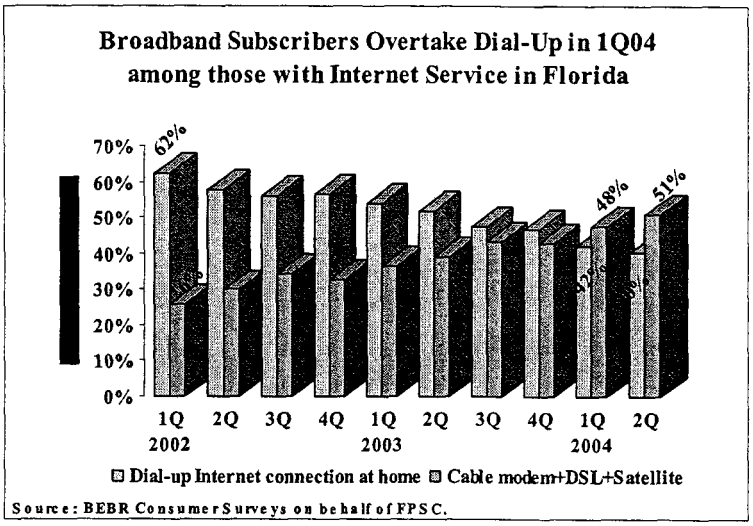
The FCC's biannual report on high-speed lines in service provides the most detailed broadband data in terms of state-specific and technology-specific information. However, the consumer surveys conducted by the University of Florida's Bureau of Business and Economic Research on behalf of this Commission provide additional information on Florida broadband penetration. Figure 23 shows that by the end of the second quarter of 2004, approximately 36% of Florida respondents reported having a high-speed Internet connection in the home.

Figure 23



The rise in broadband is more pronounced when looking exclusively at those with Internet service in the home. For the first time in Florida, the percentage using broadband eclipsed the percentage using dial-up in the first quarter of 2004. This event occurred rather dramatically, as the market share lead for dial-up was quite substantial only two years ago. During this time frame the broadband share of Florida Internet households rose from 26% to 51%, while the share for dial-up dropped from 62% to 40% (Figure 24).

Figure 24



3. Overview of Existing and Emerging Broadband Technologies

Emerging broadband technologies continue to make advances in the drive to capture a segment of the broadband market. While cable modem and DSL still account for the vast majority of broadband subscribers, advancements in the fields of wireless, fiber optics and broadband over powerline continue to offer hope for deployment of these emerging broadband technologies. The following is an overview of recent developments in these technologies.

a. Wireless Broadband

In 2004, wireless broadband made important strides toward becoming the third provider of high-speed Internet service to the home. While cable modem and DSL providers continue to rack up large subscriber gains, wireless innovation continues to push down prices and increase coverage areas. An overview of four such wireless technologies follows.

i. 3G Wireless

In the third generation mobile, or 3G, market, several companies have announced bold plans to provide nationwide mobile data service. Verizon Wireless and Sprint PCS are implementing CDMA networks based on a standard referred to as CDMA-EVDO, or "data-optimized" wireless. Typical downstream bandwidth is in the range of 300 to 500 kbps while upstream bandwidth is limited to approximately 40 to 60 kbps. Verizon Wireless intends to

spend $1 billion on the network over the next two years.[177] The service will be available on EVDO-based wireless telephones and laptop computers equipped with the Verizon Wireless network card. The service was originally available in San Diego and Washington D.C., but has since expanded to an additional twelve cities nationwide. In Florida, Verizon announced initial availability for the metropolitan area covering from North Palm Beach south through Miami, as well as the Tampa Bay region and Key West.[178] Expansion to further cities in Florida and nationwide is expected in 2004 and 2005. Sprint PCS will also deploy in select markets in the second half of 2004 and in the majority of top metropolitan markets in 2005.[179]

Cingular Wireless announced that it was also seeking to push up its timetable for providing high-speed wireless Internet service. Cingular is seeking to catch early market leaders in the race to provide 3G services. The company's mobile network, built on the GSM wireless standard rather than CDMA, faces a different migration path to 3G services. Cingular plans to use the UMTS (Universal Mobile Telecommunications System) technology to provide wireless Internet applications to customer wireless telephones at rates of up to 384 kbps, possibly beginning in 2005.[180] UMTS is compatible with the GSM networks used by Cingular and most European carriers. AT&T Wireless already has 3G service available to customers in six U.S. cities utilizing UMTS technology.[181]

Nextel Wireless has not yet announced its 3G strategy but the company is conducting an extensive field trial with an exciting mobile data technology from Flarion Technologies. The wireless service, known as Flash OFDM, has shown typical download speeds of 1.5 Mbps and upload speeds of 375 kbps, both significantly faster than competing mobile wireless broadband services. The trial is taking place in the Raleigh-Durham region of North Carolina and has been expanded to cover 1300 square miles.[182]

ii. Wi-Fi

The number of Wi-Fi hotspots in Florida has risen considerably over the past year. Florida had 937 hotspots listed as of September 2004 versus 385 in September 2003.[183] This

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[177] "Verizon Wireless Announces Roll Out of National 3G Network." Verizon Wireless press release. January 8, 2004. <http://news.vzw.com/>.

[178] "Verizon Wireless Launches High-Speed Broadband Service." News Release. Verizon Wireless. September 22, 2004.

[179] "Sprint Announces Plans to Extend its Wireless Data Leadership with Launch of High-Speed Wireless Data Technology." Sprint Press Release. June 22, 2004. <http://www.sprint.com>.

[180] "Cingular to Deliver 3G Wireless." Cingular news release. June 22, 2004. <http://www.prnewswire.com/micro/cingul1>.

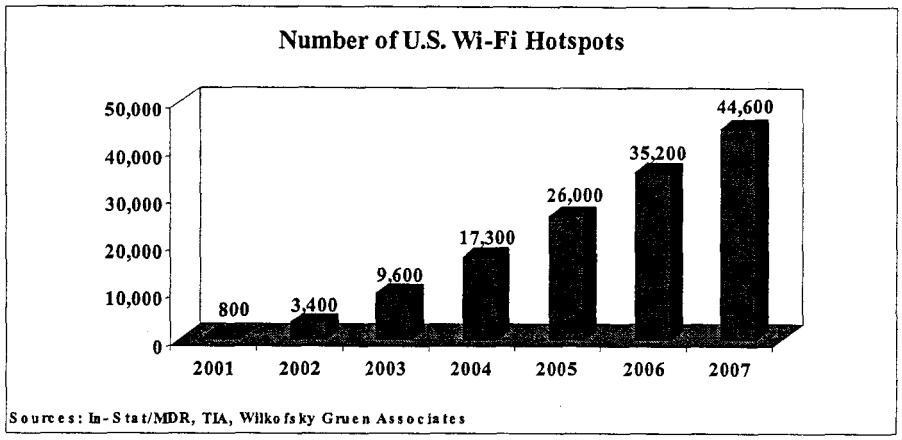
[181] "AT&T Wireless Extends 3G UMTS Service to Dallas and San Diego." AT&T Wireless press release. September 1, 2004. <http://www.attwireless.com/press/>.

[182] Nextel Communications, Inc. <http://www.nextelbroadband.com/>.

[183] Jiwire Guide to Wi-Fi. <http://www.jiwire.com>. Accessed September 2, 2004.

places Florida fourth nationally behind California, Texas and New York. Some research firms expect the number of U.S. hotspots to continue a rapid growth pace well into 2007 (Figure 25).[184]

Figure 25



The increasing use of Wi-Fi in homes and businesses has been tempered by difficulties for service providers in establishing a successful business model. The consumer Wi-Fi experience seems to be characterized by high demand from early adopters, but low willingness to pay for a wireless broadband service when many already subscribe to broadband at home. Low equipment costs, unlicensed spectrum, and a well established Wi-Fi standard result in intense competition and small to negative profit margins for equipment manufacturers and operators.

A high-profile example of these challenges is the termination of the Cometa Networks effort not long after its initiation. The company set out to become a nationwide wholesaler of Wi-Fi connectivity, with a goal of 20,000 hotspots. The project was initially backed by IBM, AT&T, Intel and venture capital firms, but never made it past initial deployments in Seattle, New York and Connecticut.[185] Investor support and enthusiasm never developed to support the nationwide model. Cometa's vice president of marketing, Kent Hellebust, noted that potential investors did not believe the return on capital would be sufficient to justify expansion.[186] Another major blow occurred when McDonald's decided to go with competitor Wayport for a rollout of over 8,000 hotspots in the next 12 months.[187]

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[184] TIA's Tech Trends, Volume I No. 1. May 2004. <http://www.tiaonline.org/media/may04_tech_trends.pdf>.

[185] O'Shea, Dan. "Industry Surprised by Cometa Shut Down." TelephonyOnline. May 19, 2004. <http://www.telephonyonline.com/>.

[186] Konrad, Rachel. AP Business Writer. "Cometa Closes as Investors Shy from Wireless Internet Access." The Detroit News. May 20, 2004. <http://www.detnews.com/2004/technology/0405/20/technology-158156.htm>.

[187] Shim, Richard. "Wayport, McDonald's Cook up Hotspot Deal." CNET News.com. May 24, 2004. <http://www.news.com/>.

Just as many are struggling with the Wi-Fi business model, there is considerable interest in further expanding the technology into mainstream usage. The development of hybrid mobile telephones, capable of roaming from wireless telephone networks to Wi-Fi networks, has the potential to significantly expand the presence of both wireless methods. Proponents even suggest such a combination would provide a strong alternative to traditional wired telephone service.[188] The hybrid telephones would combine high-speed data capabilities and lower cost VoIP service while in the Wi-Fi domain, along with the increased range and coverage of today's mobile telephone networks. If early problems with seamless call transfers between networks and hefty battery requirements can be overcome, the convergence promises the best of both worlds for voice and data customers. However, early telephones and service plans are generally dedicated to business users and are expected to be priced at a premium. Wireless broadband would cost between $40 to $80 a month and fees for Wi-Fi hotspots another $20 to $40 per month.[189]

iii. Fixed Wireless

Fixed wireless broadband solutions are typically based on a centralized tower antenna which transmits signals to and from window or roof mounted antennas located at the customer premises. The fixed wireless category includes a variety of technical standards, configurations and bandwidth alternatives.

The fixed wireless broadband market continues to adopt more productive technology solutions. Companies are seeking to develop business models which will allow them to provide service to customers left behind by traditional wireline broadband. Many are even looking to compete for wireline customers by offering wireless service at comparable price points.

WiMAX is a set of emerging fixed wireless broadband standards which have gained much attention recently. Technically related to Wi-Fi, but designed for long range, high bandwidth transmissions, WiMAX has the potential to compete with landline broadband solutions. Initial applications have been directed towards corporate users, but supporters of the technology believe it will eventually be an alternative for residential consumers as well. WiMAX provides up to 31 miles of service area range and allows users to get broadband connectivity without needing direct line of sight with the base station. Each base station can supply a sufficient amount of bandwidth to simultaneously support hundreds of businesses with T1/E1-type connectivity and thousands of homes with DSL-type connectivity.[190]

While the technology is praised by many, there are also a great number who doubt that benefits or successful business models will develop for quite some time. For starters, there are worries that WiMAX production will never scale to the level of Wi-Fi, and therefore will remain

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[188] Charny, Ben. "Wi-Fi Phones Make a Splash." CNET News.com. August 5, 2004. <http://www.news.com/>.

[189] Ibid.

[190] "About the WiMAX Forum." WiMAX Forum. <http://www.wimaxforum.org/about>.

an expensive method of broadband deployment. As an end-user product, Wi-Fi has permeated not just home networking for computers but numerous other consumer products as well. WiMAX meanwhile is positioned as a wide area technology and may have more difficulty in achieving economies of scale in the production of base stations and other needed equipment.[191] It is also difficult at this early stage of development to determine which business models incorporating WiMAX gear will be most effective. Intel Corporation, a major backer of WiMAX, notes that service providers will need to sustain a mix of high-revenue business customers and high-volume residential subscribers to support a profitable business model.[192] Intel stressed that the inherent flexibility of WiMAX is an advantage in deploying such a model.

Last year, one of the nation's earliest wireless broadband services was provided by Clearwire in Jacksonville, Florida. Since that time the company has been acquired by wireless veteran Craig McCaw and announced a re-launch of new wireless broadband services in August 2004. Clearwire is providing a new fixed wireless broadband service, based on an early version of the WiMAX standard, to customers in Jacksonville, Florida. Clearwire introduced the new service first in Jacksonville with other cities throughout the nation to follow, including Daytona Beach.[193] The Clearwire tower transmits radio signals from a base site to a small, wireless modem, the size of a paperback book which connects the users' computer to the Internet.[194] The service also focuses on ease of use for the customer. With plug and play capability, the home installation process is meant to be extremely simple. Customers purchase the wireless modem and plug it into their home computer to receive wireless broadband service at rates ranging from 1.5 Mbps for $34.99 monthly down to 512 kbps for $24.99 a month.

BellSouth announced in March that it was expanding its fixed wireless broadband trials to Palatka, Florida.[195] The company said earlier trials in Daytona Beach were positive and that the Palatka trials would incorporate tests of features and capabilities, such as the introduction of Wi-Fi components. The new trials will also examine the feasibility of fixed wireless broadband technology in rural areas.

iv. Satellite

Broadband service providers desiring to supply Internet service via satellite continue to have a difficult struggle. The high cost and complexity of such service, combined with

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[191] Jarich, Peter. "The 'Why' of WiMAX." Current Analysis, Inc. May 10, 2004. <http://www.supercomm2004.com/ind_news/>.

[192] "IEEE 802.16 and WiMAX: Broadband Wireless for Everyone." Intel Corporation white paper. <http://www.intel.com/netcomms/technologies/wimax/>.

[193] Gibbons, Timothy J. "Jacksonville First Market for Clearwire Venture." The Florida Times Union. August 26, 2004. <http://jacksonville.com/>.

[194] "Clearwire Launches Wireless Broadband Internet Service." Clearwire press release. August 26, 2004. <http://www.clearwire.com/>.

[195] "BellSouth Announces Fixed Wireless Broadband Trial in Palatka, Florida." BellSouth Press Release. March 23, 2004. <http://www.bellsouth.com>.

download and upload speeds slower than those of landline broadband providers, may create a difficult business model for satellite broadband providers. DirecWay is the nation's largest provider of satellite broadband service, with 180,000 residential customers as of year-end 2003.[196] However, News Corp. Ltd, which took over DirecWay and its parent companies in 2004, has deemphasized the satellite broadband business, citing doubts in the projections of market demand and profitability. The Spaceway project, which was promoted as a next generation broadband satellite offering will be scrapped, with the only satellite to be launched dedicated to HDTV instead of Internet service.[197] In fact, News Corp. Ltd. has put the DirecWay division up for sale in order to fund its core DirecTV assets.[198]

For many consumers in rural areas, satellite is the only means of obtaining broadband Internet service. According to recent surveys by Northern Sky Research (NSR), as many as 2.5 million rural households and small office/home office users in North America would be receptive to using the latest satellite technology to gain high-speed access to the Internet.[199] The National Rural Telecommunications Cooperative, which lends support to broadband satellite initiatives for its members, states that, "only about 5% of rural towns with populations less than 10,000 have access to broadband."[200] However, this does not create an easy market for satellite providers, as noted by NSR senior analyst Patrick French. "The fallacy has been that potential customers in unserved and underserved areas would be willing to pay more for a broadband-satellite connection. But the reality is that many users are simply electing to stick with a standard dial-up connection."[201]

b. Fiber-to-the-Home

Significant announcements in the fiber-to-the-home (FTTH) market this year provide continued optimism for the future of this powerful medium. Smaller operators and municipalities are already leading the charge in fiber deployment. In fact, the Fiber-to-the-Home Council noted that, "FTTH deployments continue to be driven by municipalities, competitive

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[196] The DirectTV Group, Inc. Form 10-K, page 12. For the fiscal year ended December 31, 2003. United States Securities and Exchange Commission. <http://www.sec.gov/edgar/searchedgar/webusers.htm>.

[197] Pasztor, Andy. "Ambition to use Spaceway to Offer Broadband Service Fades Amid Profit Doubts." The Wall Street Journal, May 28, 2004; page A3.

[198] Hamilton, Dane. "Bidders for DirecTV Satellite Unit Shrink – Sources." Reuters. June 24, 2004.

[199] Long, Mark. "Broadband Via Satellite: Looking Down?" NewsFactor Network. June 28, 2004. <http://wireless.newsfactor.com>.

[200] National Rural Telecommunications Cooperative. <http://www.nrtc.coop/sub/wildblue/index.html>. Accessed July 6, 2004.

[201] Long, Mark. "Broadband Via Satellite: Looking Down?" NewsFactor Network. June 28, 2004. <http://wireless.newsfactor.com/>.

local exchange carriers (CLECs) and new residential developments."[202] The FTTH Council lists 128 communities in 32 states with FTTH deployments, up from 94 communities in 26 states as of September 2003. This year's list includes six communities in Florida.

While the number of subscribers, or even deployments, remains a small percentage of American households, momentum seems to be building with two of the RBOCs announcing large fiber build-outs. Both Verizon and SBC made recent announcements regarding their fiber plans. Verizon announced that the company was on track to reach one million homes in 2004 with fiber to the premises (FTTP), as the company refers to its chosen technology. In 2005, Verizon plans on deployment to two million more homes. Verizon initiated its first fiber deployment in Texas and has plans to expand through eight other states in its local service territory, including its Tampa, Florida region. The new service will provide broadband download speeds beginning at five Mbps and ranging as high as 30 Mbps, according to Bob Ingalls, president of Verizon's Retail Marketing Group.[203] SBC also announced the possibility of a $4 billion to $6 billion investment in fiber optic deployment for broadband, video and communications services over the next five years. The company noted that investments were still subject to pending regulatory matters and field trials of the technology in the summer of 2004.

In the Triennial Review Order and subsequent clarifications, the FCC ordered that ILECs will not have to unbundle "broadband elements" (specifically fiber-to-the-home loops (FTTH), fiber-to-the-curb loops (FTTC), the packetized functionality of hybrid loops, and packet switching) under Section 251 of the 1996 Act.[204] Following that order, uncertainty remained as to whether Section 271 of the 1996 Act[205] might still require unbundling of these deployments by Regional Bell Operating Companies (RBOCs). Specifically, some CLECs and state commissions had suggested that although certain unbundling obligations under Section 251 had been lifted by the TRO, Section 271 might still allow an avenue for enforcing unbundling of broadband investment by the RBOCs. Each of the four RBOCs, including BellSouth and Verizon, petitioned the FCC for forbearance from the unbundling obligations in Section 271 to the extent they may have applied to broadband deployment. On October 22, 2004, the FCC granted these petitions for forbearance, ordering that the four RBOCs will not be forced to unbundle broadband elements under Section 271. In the order, released on October 27, 2004, the FCC states, "we forbear from enforcing the requirements of section 271, for all four petitioners (the Bell Operating Companies (BOCs)), with regard to the broadband elements that the Commission, on a national basis, relieved from unbundling in the *Triennial Review Order* and subsequent reconsideration orders (collectively, the "*Triennial Review* proceeding"). These

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[202] "U.S. Optical Fiber Communities-2004." Fiber-to-the-Home Council and the Telecommunications Industry Association. May 19, 2004. <http://www.ftthcouncil.org>.

[203] "Verizon, in Historic First, Begins Large-Scale Rollout of Advanced Fiber-Optic Technology." Verizon News Release. May 19, 2004. <http://newscenter.verizon.com>.

[204] There are some narrow limits to this exemption from unbundling requirements.

[205] Section 271 of the 1996 Act, among other things, addresses RBOC obligations for unbundling in order to receive approval to provide long distance service.

elements are fiber-to-the-home loops (FTTH loops), fiber-to-the-curb loops (FTTC loops), the packetized functionality of hybrid loops, and packet switching (collectively, broadband elements).[206]

The FCC noted that "the relief included in this decision will benefit consumers by making the RBOCs more vigorous competitors to cable modem service, which plays a significant role in the current broadband market."[207] In addition, the FCC reiterated conclusions from the Triennial Review "that relieving incumbent carriers from the unbundling rules for these particular broadband elements could spark a race to build next-generation networks that will benefit consumers by providing new services and more competition."[208]

c. Broadband over Power Line (BPL)

Broadband over power line (BPL), which is also referred to as power line communications (PLC), is an emerging technology that delivers broadband Internet connectivity over electric power lines. BPL is a last mile technology that takes advantage of medium and low voltage line capacities. Electricity travels at a lower frequency than an Internet signal, so the two can share a power line.[209] Internet data traffic can be transmitted through this medium for approximately one mile, or longer with the use of repeaters. For the backhaul of traffic to Internet backbones, traditional fiber optic or other landlines are required. The technology has promise due to the existence of a network that already completes an electrical connection to virtually every home and business. By enabling power lines with the ability to provide broadband Internet, proponents hope this third network to the home will rival those established by telephone and cable companies.

The FCC issued a Notice of Inquiry (NOI) on April 23, 2003, requesting public comment on the use of electrical power lines to provide Internet and broadband services to residential and business consumers. The NOI was issued as part of the FCC's "effort to promote spectrum flexibility and access to broadband services for all Americans, and to encourage multiple platforms for broadband, especially new facilities-based platforms."[210] The NOI was also issued to request comments to assist the FCC in reviewing their Part 15 rules, which provided specific emission limits for carrier current systems operating below 30 MHz.[211] BPL is one of the

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[206] FCC Releases Order Granting BOC Petitions for Forbearance From Section 271 Requirements for "Broadband Elements". October 27, 2004. <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-254A1.doc>.

[207] "Federal Communications Commission Further Spurs Advanced Fiber Network Deployment." October 22, 2004. <http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-253492A1.doc>.

[208] Ibid.

[209] Glanz, William. "Electric Companies Begin Offering Broadband Service." The Washington Times. April 5, 2004. <http://washingtontimes.com/business/20040404-100425-2213r.htm>. Accessed May 6, 2004.

[210] FCC News Release. FCC Begins Inquiry Regarding Broadband Over Power Line (BPL). April 23, 2003. <http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-233537A1.pdf>.

[211] FCC Notice of Proposed Rulemaking. February 23, 2004. Docket Nos. 03-104 & 04-37. FCC 04-29.

systems to which Part 15 rules apply. Of particular interest to the FCC were comments on the current state of high speed BPL technology, potential interference effects, and test results from BPL experimental sites. The FCC has issued at least eight experimental licenses to offer the service since April 2003. The companies issued licenses include Progress Energy for Raleigh, North Carolina, and Southern Telecom for unspecified areas in Alabama, Florida, Georgia, and Mississippi.[212]

On February 12, 2004, after receiving over five thousand comments and replies to the NOI, the FCC released a Notice of Proposed Rulemaking (NPRM) proposing rules for BPL that were intended to increase the availability of broadband service to underserved areas and enhance competition while protecting existing services against interference. The NPRM provided interference mitigation requirements, as well as procedures for measuring radio frequency energy emitted from BPL equipment.[213] The NPRM also proposed facilitating access to BPL to increase the availability of broadband in rural and underserved areas, where power lines are already in place and there is no access to broadband in many cases.

One group that has voiced opposition to the deployment of BPL is amateur radio operators who are concerned that BPL may affect their shortwave radio communications signals. This group believes BPL may also affect the high-frequency transmissions used for national security, emergency response and an array of other applications.[214] In May 2004, the Institute of Electrical and Electronics Engineers-USA (IEEE) filed comments regarding the FCC's NPRM. The IEEE said the FCC has not yet resolved interference concerns, including concerns that BPL technologies may cause serious and harmful interference to national security, homeland defense, and emergency and disaster communications. The IEEE also commented that Access BPL systems may be subject to interference from licensed users of the high frequency spectrum that they use, causing the quality of service to decrease.[215] The FCC believes interference problems can be resolved by technical solutions.[216]

A number of BPL trials have been conducted across the nation, but there have been few commercial rollouts thus far. Current Communications Group and Cinergy Broadband, LLC, announced in March 2004 the first large-scale rollout of BPL technology and services in the U.S. The service is available only in the Cincinnati, Ohio area, but plans include deployment to other Cinergy customers in Kentucky, Ohio, and Indiana, potentially reaching 24 million customers.

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[212] Schoolar, Daryl. "Has the Time Come for Broadband Power Line?" In-Stat/MDR Information Alert Newsletter. March 24, 2004. Vol. 49. <http://www.instat.com/infoalert.asp?Volname=Vol.%20%23%2049#item3>.

[213] FCC Press Release. FCC Proposes Rules For Broadband Over Power Lines To Promote Broadband Service To Underserved Areas And Increase Competition. February 12, 2004. <http://www.fcc.gov/headlines.html>.

[214] American Radio Relay League Web site. Broadband over Power Line: Why Amateur Radio Is Concerned About Its Deployment. <http://www.arrl.org/tis/info/HTML/plc/BPL-leave-behind.pdf>.

[215] Comments of IEEE-USA. FCC Docket Nos. 03-104 & 04-37. May 3, 2004. <http://www.ieeeusa.org/policy/POLICY/2004/050304a.pdf>.

[216] FCC Notice of Proposed Rulemaking. Docket Nos. 03-104 & 04-37. February 23, 2004. FCC 04-29.

The initial deployment followed 14 months of trials. One feature of the service is VoIP telephone service capability.[217]

While BPL seems to hold promise as a third wired broadband network to the home, it is unproven in the marketplace. BPL is entering a market where intense competition already exists between cable modem and DSL providers.

[217] Current Communications Press Release. Current Communications and Cinergy Launch Broadband Access Over Power Lines. March 2, 2004.
<http://www.currentgroup.com/OurCompany/PressReleases/PressReleasesDetails/4.htm>.

CHAPTER V: DISCUSSION OF ITEMS REQUIRED BY CHAPTER 364, F.S.

A. INTRODUCTION

Section 364.386(1), Florida Statutes, requires the Commission to address six points in its evaluation of the status of local wireline telecommunications in Florida. With those issues in mind, staff drafted data requests and sent them to all certificated CLECs and ILECs. The CLEC data request consisted of questions designed to obtain information regarding the types of local telecommunications services being offered, the range of rates and bundles for services offered, the status of agreement negotiations with ILECs, and the geographic areas where customers are able to obtain such services. Along with questions regarding the amounts invested in networks serving Florida and other service offerings such as cable television and cellular service in Florida, CLECs were asked to describe any barriers experienced in entering Florida's local exchange market. Comments as to any major obstacles believed to be impeding the growth of local competition and suggestions as to how to remove such obstacles were also solicited. This chapter addresses the statutory questions and summarizes some of the feedback provided by CLECs in response to the additional questions.

A 1997 amendment to Section 364.161(4), Florida Statutes, mandates that the Commission maintain a file of all CLEC complaints against ILECs regarding timeliness and adequacy of service in the provisioning of unbundled network elements, services for resale, requested repairs, and necessary support services. This information, including how and when each complaint was resolved, is included in Appendix D.

The Commission is required to address the following points in analyzing the status of competition in Florida:

(1) The overall impact of local exchange telecommunications competition on the continued availability of universal service.

(2) The ability of competitive providers to make functionally equivalent local exchange services available to both residential and business customers at competitive rates, terms, and conditions.

(3) The ability of customers to obtain functionally equivalent services at comparable rates, terms, and conditions.

(4) The overall impact of price regulation on the maintenance of reasonably affordable and reliable high-quality telecommunications services.

(5) What additional services, if any, should be included in the definition of basic local telecommunications services, taking into account advances in technology and market demand.

(6) Any other information and recommendations which may be in the public interest.

B. DISCUSSION OF SIX STATUTORY ISSUES

1. The Overall Impact of Local Exchange Telecommunications Competition on the Continued Availability of Universal Service.

Universal Service is the longstanding concept that a specified set of telecommunications services be available to all customers at affordable rates.[218] Chapter 364.025, Florida Statutes, provides a number of guidelines designed to maintain universal service objectives with the introduction of competition in the local exchange market. Section 364.025(1), F.S., requires ILECs to furnish basic local exchange telecommunications service within a reasonable time period to any person requesting such service within a company's service territory until January 1, 2009. Section 364.025(4), F.S., mandates that prior to January 1, 2009, "the Legislature shall establish a permanent universal service mechanism upon the effective date of which any interim recovery mechanism for universal service objectives or carrier-of-last-resort obligations imposed on competitive local exchange telecommunications companies shall terminate." In compliance with this section, the Commission submitted its report, Universal Service in Florida, to the Governor and Legislature in December 1996. At the direction of the Legislature, universal service issues were revisited in the Universal Service and Lifeline Funding Issues report submitted in February 1999. In its report, the Commission stated that "although the potential for an ILEC to experience competitive erosion of its high-margin customers while retaining its high-cost (and perhaps below cost) customer base is a real concern, the Commission has not discerned any such major impact to date."

In 2003, 94.6% of Florida households subscribed to local telephone service, exceeding the national average of 94.2%.[219] This represents an increase in Florida households subscribed from 94.3% reported for 2002, and 93.2% reported in 2001.[220] Households with incomes below $14,000 annually increased telephone subscribership from 94.3% in 2002, to 94.4% in 2003.[221] Since 1997, the number of households receiving Lifeline Assistance, an assistance plan that allows for up to a $13.50 credit on monthly phone charges, has increased 5.4%.[222]

Local exchange wireline competition has had little discernable impact on the continued availability of universal service.

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[218] Exactly what should constitute that "specified set" of services is hotly debated in the national arena.

[219] Federal Communications Commission. Wireline Competition Bureau. *Telephone Subscribership Report.* Washington D.C., 2004.

[220] Ibid.

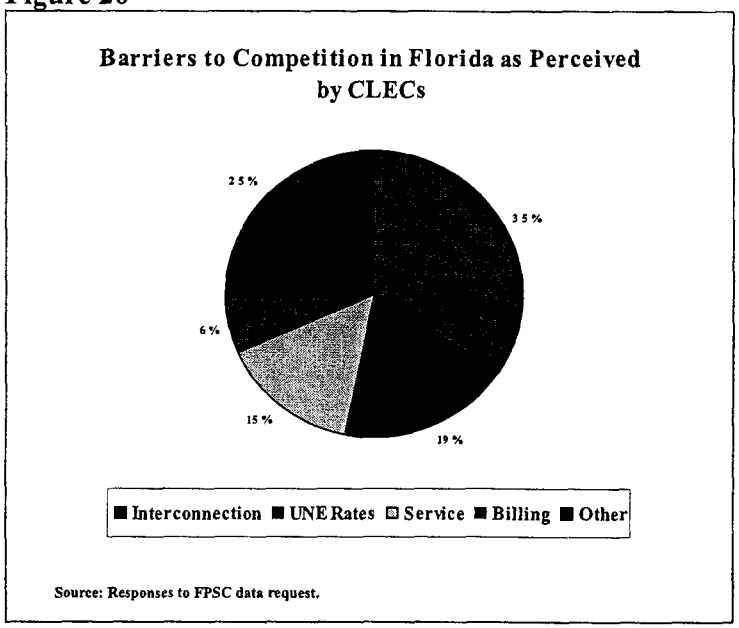
[221] Ibid.

[222] Ibid.

2. The Ability of Competitive Providers to Make Functionally Equivalent Local Exchange Service Available to Both Residential and Business Customers at Competitive Rates, Terms, and Conditions.

The Commission surveyed the 420 CLECs certified as of May 31, 2004. Of the 357 respondents, 175 indicated that they were currently providing service in Florida. CLECs were asked to discuss any perceived barriers to competition in Florida and to describe any significant obstacles that may be impeding the growth of local competition in the state. The primary issues identified by the respondents are shown in Figure 26.

Figure 26



Interconnection Agreements – The most frequently reported barrier to entry was issues relating to interconnection agreements. CLEC allegations included "take it or leave it" negotiations by ILECs, delays in the negotiation process, excessive costs, and unwillingness of ILECS to negotiate. Recent TRO developments, and the increased focus on negotiations, may have contributed to some CLECs reporting this as a perceived barrier. Last year, interconnection agreements was the second most frequently reported barrier to entry.

UNE Rates – UNE pricing was the second most commonly listed barrier to entry. Some CLECs stated that Commission-set UNE rates were too high and should be reduced. Other CLECs were troubled by the variation of UNE rates between Sprint, BellSouth, and Verizon. Last year, UNE rates was the most commonly identified barrier to entry.[223]

Service – CLECs stated that another barrier to entry was service problems. This category includes allegations about service from the ILEC to the CLEC and from the ILEC to the CLEC's

[223] It should be noted that facilities-based CLECs like Florida Digital Network have expressed concern that artificially low UNE-P rates place them at a competitive disadvantage vis-à-vis CLECs offering service via UNE-P.

customers. Some CLECs alleged that new customer installation was delayed by ILECs. Other service issues included problems with number portability, untimely correction of defects, and incorrectly rejected orders.

Billing – Another barrier to entry alleged by CLECs was billing problems. CLECs stated that they have to use their employees to correct billing issues that are the responsibility of the ILECs.

Other Issues – CLECs raised several other issues that did not necessarily fit into one of the major categories previously discussed. Those issues included regulatory uncertainty, winback activities, too much competition, and the belief that the elimination of UNE-P will eliminate competition. Some CLECs stated that another barrier to entry was DSL-related issues.

Pursuant to Section 364.161(4), Florida Statutes, the Commission handles CLEC complaints filed against ILECs. It is noteworthy that over the past three years, the number of complaints has been declining. There were 81 complaints filed from July 1, 2001 through June 30, 2002, 58 complaints filed from July 1, 2002 through June 30, 2003, and 41 complaints filed from July 1, 2003 through May 31, 2004 (note that the number of complaints for the month of June 2004 is not included in the last total).

The Commission received 254 negotiated agreements and 10 requests for arbitration between July 1, 2003 and May 31, 2004. Since June 1996, the Commission has reviewed and approved 2,871 negotiated interconnection agreements.

3. The Ability of Customers to Obtain Functionally Equivalent Services at Comparable Rates, Terms, and Conditions.

In an environment of emerging intermodal competition for voice service, analysis of this statutory factor is not simple. Customers may obtain what they consider functionally equivalent services – via wireline telephony, wireless, VoIP, or cable telephony. This factor, however, is only analyzed herein with respect to the provision of wireline telecommunications by ILECs and CLECs, the companies subject to Commission jurisdiction. As such, our analysis of this factor can be incomplete at best.

As of May 31, 2004, 175 CLECs reported they are currently providing some form of local telecommunications service in Florida. Appendix A lists the responding CLECs, the class of customers each serves, and the methods by which each provides service. Methods of offering service are through *resale* of an ILEC's, or wholesaler's products, *facilities-based* provisioning entirely through the competitor's own facilities, *unbundled network elements* (UNEs) leased from the ILEC, or a *mixed* combination of two or more methods.

Table 6 shows that CLECs appear to continue to target markets with large concentrations of customers. The table lists the state's ten Local Access and Transport Areas (LATAs), the

number of local exchange areas within the LATA served by a local telephone company, and the number of exchanges within the LATA without a competitive entrant.[224]

Table 6 CLEC Providers by Florida LATA						
LATA	Exchanges in LATA		Exchanges without competitive entrant		Area Codes Serving LATA	
	2003	2004	2003	2004	2003	2004
Daytona	10	10	0	0	386	386
Ft. Myers	31	31	0	0	863,941,941 to 239	863,941,941 to 239
Gainesville	49	49	1	2	352,850,904	352,850,904
Jacksonville	43	43	0	0	386,904	386,904
Mobile, AL	2	2	1	1	850	850
Orlando	23	23	0	1	321,386,407,407	321,386,407,407
Panama City	35	35	3	5	850	850
Pensacola	23	23	2	3	850	850
Southeast	25	25	1	1	305,561,561 to 772, 754,786,954	305,561,561 to 772, 754,786,954
Tallahassee Area	12	12	0	0	850	850
Tampa Area	24	24	0	0	727,813,863,941	727,813,863,941

Source: Responses to FPSC data requests; FPSC Internal Sources.

Customers must also be able to obtain functionally equivalent services at rates comparable to that of the ILEC in order for meaningful competition to take place.[225] As shown in Table 7, customers appear to have access to a wide variety of rates as competitors have developed a variety of pricing strategies to gain customers, including overall discounts and matching the incumbent's price.

Table 7 Local Rates for Selected Florida CLECs and ILECs As of May 31, 2004					
CLEC Rate			ILEC Rate		
CLEC	Residential	Business	ILEC	Residential	Business
Supra Telecommunications and Information Systems, Inc.	$10.95	$27.95	BellSouth	$7.57-$11.04	$20.55-$30.20
Tallahassee Telephone Exchange	$9.65	$19.99	Sprint	$7.63-$11.78	$16.57-$25.57
American Fiber Networks	$10.75-$12.00	$25.25-$30.00	Verizon	$10.12-$12.10	$24.47-$30.35
Orlando Telephone Company	$11.50	$25.00	BellSouth Sprint	$7.57-$11.04 $7.63-$11.78	$20.55-$30.20 $16.57-$25.57

Source: Company Tariffs and Price Lists.

Another pricing strategy offered by CLECs is prepaid telephone service, an option for, among others, consumers with poor credit histories or those disconnected due to repeated late

[224] The 2003 Report erroneously stated that there were two exchanges in Mobile and in Panama City, and one exchange in Tallahassee without a competitive entrant. The correct numbers were one, three, and zero, respectively.

[225] As noted, customers may obtain what they consider functionally equivalent services via other platforms. Our analysis is limited to wireline telecommunications issues.

payment or nonpayment. Customers of prepaid telephone companies typically agree to pay a monthly fee in advance for local calling and 911 access, but must agree to block long distance, 900-numbers, and directory assistance calls. Prices for such services are approximately $39.00 per month for residential service, and $69.00 per month for business service. Telephone companies providing only prepaid telephone services account for 31 of the 175 companies providing local service in Florida.

4. The Overall Impact of Price Regulation on the Maintenance of Reasonably Affordable and Reliable High-Quality Telecommunications Services.

In 2003, the Florida Legislature passed a comprehensive rewrite of the Florida statutes governing the regulation of telecommunications companies in Florida. The legislation entitled "The Tele-Competition Innovation and Infrastructure Enhancement Act of 2003" (the 2003 Act) was signed into law on May 23, 2003, by the Governor. The law is designed to provide further impetus for development of a more competitive telecommunications market in Florida. The law most notably impacts the regulation of ILECs and IXCs.

On August 27, 2003, BellSouth, Verizon and Sprint filed petitions with the Commission proposing to implement Section 364.164, Florida Statutes, by rebalancing rates in a revenue neutral manner, on a statewide basis, through decreases in intrastate switched access charges with offsetting rate adjustments for basic local services. The initial petitions were dismissed by the Commission as deficient based on a statutory criterion, but the companies subsequently amended their petitions to correct the deficiencies.[226] A related docket was opened by the Commission on October 2, 2003, to address the required flow-through of ILEC switched access charge reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes.

Fourteen public hearings were held throughout the state to obtain customer input, and citizens filed written comments. The Commission took additional testimony and evidence on the petitions from December 10 through 12, 2003 and reached a decision at its December 16, 2003, Agenda Conference. Based on the evidence before it and having considered a detailed staff recommendation recommending that the rate rebalancing petitions be granted, the Commission found that intrastate access rates currently provide support for basic local telecommunications services and that the support prevents the creation of a more attractive competitive local exchange market by keeping local rates at artificially low levels, thereby raising an artificial barrier to entry into the market by efficient competitors. The Commission determined that the elimination of such support will induce enhanced market entry into the local exchange market by competitors, resulting in the creation of a more competitive local exchange market that will benefit residential consumers. Therefore, it granted the BellSouth, Verizon and Sprint petitions for rate rebalancing.

Although not mandated by Section 364.164 to consider the impact of the proposals on toll rates paid by residential consumers, the Commission concluded that many residential customers will benefit directly from the elimination of in-state connection fees and reductions in

[226] BellSouth filed its amended petition on September 30, 2003; Sprint on October 1, 2003; and Verizon on October 2, 2003.

per-minute intrastate toll rates. Notwithstanding arguments that it lacked the authority to do so, the Commission ordered that reductions in switched access charges paid by IXCs and ILECs be flowed through to consumers for a minimum period of two years. Further, noting that the amended Lifeline provisions in Section 364.10 will help to protect economically disadvantaged consumers from the effect of local rate increases, the Commission secured the commitment of each of the three large ILECs to expand its Lifeline eligibility criteria further than the 2003 Act requires by allowing customers with incomes at or below 135% of the federal poverty guidelines to participate in the program. The ILECs also committed not to increase rates to Lifeline customers before September 1, 2007, even if parity is reached prior to that date. The commitment to increase the eligibility criterion from 125% to 135% of the federal poverty level makes approximately 119,000 additional Floridians eligible for both the monthly Lifeline credit and the protection from the immediate effect of the approved local rate increases.

On January 7, 2004, Charles J. Crist, Attorney General, State of Florida, and Harold McLean, Public Counsel, State of Florida, filed an appeal of the Commission's Order to the Florida Supreme Court. On January 8, 2004, Attorney General Crist also filed a Motion for Reconsideration with the Commission, asking it to reconsider its decision for several reasons. At the May 3, 2004, Special Agenda Conference, the Commission denied the motions for reconsideration. The case is currently on appeal to the Florida Supreme Court. Rate rebalancing has been stayed, pending the outcome of the appeal.

On September 8, 2004, AARP filed with the Commission a motion for an evidentiary hearing because of significantly changed circumstances. AARP concurrently filed a motion with the Florida Supreme Court to relinquish its jurisdiction. In Order No. PSC-04-0893-PCO-TL, the Commission extended the time for filing responses, if the Supreme Court relinquishes jurisdiction, to 12 days from the date of the Supreme Court's decision.

Until the case is decided, the limitations in the previous law regarding local rate increases are in effect. Section 364.051, Florida Statutes, provides that an ILEC may adjust its basic service prices once in a 12-month period by an amount not to exceed the change in inflation less one percent. The following ILECs proposed changes for basic and non-basic services between July 1, 2003 and May 31, 2004, pursuant to the provisions of Section 364.051, Florida Statutes:

- ALLTEL increased basic residential and business service rates and non-basic business service rates by 0.34%.

- ITS Telecommunications Systems, Inc. increased its basic and non-basic service rates by 0.67%.

- Sprint increased residential basic services rates by 1%. It also increased residential non-basic exchange access rates by 2.06%, and increased business non-basic exchange access rates by 3.28%.

- Verizon increased residential and business basic exchange access rates by 1.04%. It also decreased business non-basic exchange access rates by 0.71%, and increased residential non-basic exchange access rates by 1.04%.

5. **What Additional Services, If Any, Should be Included in the Definition of Basic Local Telecommunications Services, Taking into Account Advances in Technology and Market Demand.**

For ILECs, Section 364.02(1), Florida Statutes, defines basic local service as follows:

> "Basic local telecommunications service" means voice-grade, flat-rate residential and flat-rate single line business local exchange services which provide dial tone, local usage necessary to place unlimited calls within a local exchange area, dual tone multi-frequency dialing, and access to the following: emergency services such as "911," all locally available interexchange companies, directory assistance, operator services, relay services, and an alphabetical directory listing. For a local exchange company, such terms shall include an extended area service routes, and extended calling service in existence or ordered by the commission on or before July 1, 1995.

According to Section 364.337(2), Florida Statutes, the basic local telecommunications service provided by a CLEC must include access to operator services, "911" services at a level equivalent to that of the ILEC serving that area, and relay services for the hearing impaired. CLECs must also provide a flat-rate pricing option for basic local telecommunications; the statute states that, "mandatory measured service for basic local telecommunications services shall not be imposed."

No evidence suggests a need to recommend additions or deletions to the definition of basic local service.

6. **Any Other Information and Recommendations Which May be in the Public Interest.**

There are no recommendations at this time.

CHAPTER VI: STATE ACTIVITIES

A. TELE-COMPETITION INNOVATION & INFRASTRUCTURE ENHANCEMENT ACT OF 2003

The 2003 Florida Legislature passed a comprehensive rewrite of the Florida Statutes governing the regulation of telecommunications companies in Florida. The legislation entitled "The Tele-Competition Innovation and Infrastructure Enhancement Act of 2003" (the 2003 Act) became law on May 23, 2003 by the signature of the Governor. The law is designed to provide further impetus for development of a more competitive telecommunications market in Florida. The law most notably impacts the regulation of ILECs and IXCs.

1. Long Distance Market

In recognition of the competitive long distance market, the 2003 Act reduces certain Commission authority and oversight over IXCs. A specific example is that the requirement to be certificated is reduced to registration with the Commission prior to beginning operation in Florida. IXCs will continue to be subject to consumer protection statutes related to slamming and cramming. These unscrupulous billing practices will continue to be addressed by the Commission's Division of Regulatory Compliance and Consumer Assistance. IXCs will also continue to file tariffs with the Commission and pay applicable regulatory assessment fees.

2. Expansion of Lifeline

Other aspects of the law include the expansion of Lifeline eligibility and associated benefits. The 2003 Act expanded Lifeline eligibility criteria by including an income-based test and providing for increased promotion of the Lifeline program. The statute provides that those consumers with income less than 125% of the Federal Poverty Guideline are eligible for Lifeline benefits. In addition, the law requires that each LEC subject to the law shall provide Lifeline applications, pamphlets, brochures and other educational materials to state and federal agencies that provide benefits to persons eligible for Lifeline services. Each state agency providing such benefits shall provide these materials to affected persons at the time such persons apply for benefits.

Further, the law requires that each state agency providing benefits to persons eligible for Lifeline service work cooperatively with the Department of Children and Families, the Commission, and telecommunications companies to develop processes for promoting Lifeline participation. That process has involved the Agency for Health Care Administration, Department of Elder Affairs, the Office of Public Counsel, the United Way, AARP, and other community groups working to disseminate information about Lifeline benefits. In an effort to disperse information as widely as possible, the Commission has made available to these agencies CD-Roms containing Lifeline brochures and posters.

Finally, the 2003 Act requires that by December 31 of each year, the Commission shall report to the President of the Senate, the Speaker of the House, and the Governor, on the number of customers subscribing to Lifeline service and the effectiveness of any promotional programs.

3. Promotion of VoIP as a Competitive Alternative

The 2003 Act excludes VoIP telephony from the definition of telecommunications "service" and provides that VoIP telephony should be free from unnecessary regulation. See Section C of Chapter VII below for a discussion of this provision. See Section A.1 of Chapter IV for a discussion of VoIP.

4. Basic Local Exchange Market

Please refer to Chapter V, Section B.4, for a discussion of the provision of the Tele-Competition Act that calls for rate rebalancing and an overview of the Commission's proceedings and rulings to implement the 2003 Act.

B. COLLOCATION DOCKETS NOS. 981834-TP/990321-TP

In September 1999, the Commission adopted procedures and guidelines for collocation (i.e., one carrier locating equipment at the premises of another carrier), focused largely on those situations in which an ILEC believes there is no space for physical collocation. The following guidelines were addressed: initial response times to requests for collocation space; application fees; central office tours; petitions for waiver from the collocation requirements; post-tour reports; disposition of the petitions for waiver; extensions of time; and collocation provisioning time frames.

An administrative hearing was held on January 12 and 13, 2000, to address collocation issues beyond those previously addressed in the collocation guidelines. The Commission rendered its post-hearing decision on these additional issues on May 11, 2000, by Order No. PSC-00-0941-FOF-TP. Therein, the Commission addressed twenty additional issues, including ILEC obligations regarding "off-premises" collocation; the conversion of virtual to physical collocation; and the division of responsibilities between ILECs and collocators for sharing and subleasing space between collocators and for cross-connects between collocators.

Following a Commission decision in November 2000, addressing various motions for reconsideration and/or clarification of the Order, the docket was left open to address pricing issues for collocation. Subsequently, the proceeding was divided to allow the Commission to address technical issues first, followed by costing and pricing issues.

Prior to the hearing on the technical issues, the parties were able to reach stipulations on several issues. The Commission rendered its decision on the technical issues on November 26, 2003, by Order No. PSC-03-1358-FOF-TP. Numerous Motions for Reconsideration and/or

Clarification of the Order were filed and subsequentlyaddressed by the Commission on March 2, 2004 (Order No. PSC-04-0228-FOF-TP).

The hearing on the remaining issues – to address the costs, appropriate definitions, and associated terms and conditions to provide certain collocation elements – took place on January 28 and 29, 2004. The Commission rendered its decision at the August 17, 2004, Agenda Conference by Final Order PSC-04-0895-FOF-TP.

C. IMPLEMENTING THE REQUIREMENTS OF THE FCC'S TRO IN COMMISSION DOCKET NOS. 030850/030851/030852-TP

On August 21, 2003, the FCC released the TRO. See Chapter III, Section B.2 for a discussion of the TRO.

The Commission opened three dockets on August 22, 2003, to ascertain whether a requesting carrier is impaired by lack of access to certain incumbent local exchange companies' network elements. Docket No. 030850-TP was initiated to address the FCC's presumption of no impairment absent access to unbundled local switching for business customers who obtain access via high-capacity loops (also referred to as enterprise customers). Pursuant to the TRO, the state commission had 90 days from the TRO's effective date, October 2, 2003, to rebut the national finding of no impairment for enterprise local switching. Docket No. 030851-TP was initiated to address impairment issues relating to local circuit switching for mass market customers; and Docket No. 030852-TP was initiated to address the location-specific review for DS1, DS3, and dark fiber loops and route-specific review for DS1, DS3, and dark fiber transport. The TRO required that a state commission complete proceedings regarding mass market switching and high capacity loops and transport within nine months from the TRO's effective date.

By Order No. PSC-03-0988-PAA-TP, issued September 3, 2003, in Docket No. 030850-TP, the Commission concluded that, based on the very limited demand existing in Florida for the combination of DS1 loops with unbundled local switching, CLECs are not impaired absent access to unbundled local switching for business customers served via high-capacity loops, as presumed by the FCC. Accordingly, the Commission did not initiate a proceeding to investigate whether to challenge the FCC's presumption of no impairment.

The hearing in Docket No. 030851-TP addressing the impairment of mass market switching was held February 24-27, 2004. Shortly thereafter, on March 2, 2004, the D.C. Circuit Court of Appeals released its decision which vacated and remanded certain provisions of the TRO. In particular, the D.C. Circuit held that the FCC's delegation of authority to state commissions to make impairment findings was unlawful. The D.C. Circuit further found that the national findings of impairment for mass market switching and high capacity transport were based upon an improper analysis and could not stand on their own. Accordingly, the Court vacated the FCC's delegation to the states for determining the existence of impairment with regards to mass market switching and high-capacity loops. The D.C. Circuit also vacated and remanded back to the FCC the TRO's national impairment finding regarding mass market switching and dedicated transport (below the Optical Carrier Number (OCn) level).

In light of the D.C. Circuit Court decision, on March 18, 2004, the prehearing officer issued an order in Docket No. 030851-TP holding this docket in abeyance indefinitely until further action is deemed appropriate.[227]

Upon commencement of the hearing in Docket No. 030852-TP on March 3, 2004, the parties agreed to hold the hearing in abeyance indefinitely pending the outcome of litigation regarding the D.C. Circuit Court of Appeals' decision. All pre-filed testimony and exhibits were moved into the record without objection. However, all parties reserved the right to conduct cross-examination of witnesses if further proceedings were convened in the docket. The parties agreed to participate in informal conference calls to discuss any new developments affecting this docket. These calls were held April 5, May 11, June 8, and July 7, 2004, for Docket Nos. 030851-TP and 030852-TP.

On June 16, 2004, the D.C. Circuit issued its mandate vacating and remanding certain TRO provisions. As a result of the Court's mandate, the FCC released Interim Rules on August 20, 2004, requiring ILECs to continue providing unbundled access to mass market local circuit switching, high capacity loops, and dedicated transport until the earlier of the effective date of final FCC unbundling rules or six months after Federal Register publication of the Interim Rules. Additionally, the rates, terms, and conditions of these UNEs are required to be those that applied under ILEC/CLEC interconnection agreements as of June 15, 2004.[228] In the event that the interim six months expires without final FCC unbundling rules, the Interim Rules contemplate a second six-month period during which CLECs would retain access to these network elements for existing customers, at transitional rates. Beyond establishing interim measures, the FCC seeks comment on, among other things, alternative unbundling rules that will respond to *USTA II.* On August 23, 2004, certain ILECs filed a *Mandamus Petition*[229] with the D.C. Circuit Court of Appeals in response to the FCC's *Order and Notice.*

At the September 21, 2004, Agenda Conference, the Commission decided that, in light of the D.C. Circuit decision, no further action was needed in these dockets and, thus they should be closed. Additionally, the Commission decided that record summaries of Docket Nos. 030851-TP and 030852-TP would not be prepared and sent to the FCC in response to its August 20 Order and Notice of Proposed Rulemaking.

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[227] Additionally, the schedule for filing briefs on April 6, 2004, was suspended. The order also informed the parties that informal conference calls would be scheduled to discuss any new developments affecting this docket.

[228] Except to the extent the rates, terms, and conditions have been superseded by 1) voluntarily negotiated agreements, 2) an intervening FCC order affecting specific unbundling obligations (e.g., an order addressing a petition for reconsideration), or 3) a state commission order regarding rates.

[229] *United States Telcom Association v. FCC*, Petition for a Writ of Mandamus to Enforce the Mandate of the Court. August 23, 2004 (*Mandamus Petition*).

D. WHOLESALE PERFORMANCE MEASUREMENT PLANS

Through Docket No. 000121-TP, the Commission developed wholesale performance measurement plans for the ongoing evaluation of operations support systems (OSS) provided for CLECs' use by ILECS. The performance measurement plans provide a standard against which CLECs and the Commission can measure performance over time to detect and correct any degradation of service provided to CLECs. The Commission adopted performance measurements for BellSouth (Sub docket No. 000121A-TP) in August 2001, for Sprint (Sub docket No. 000121B-TP) in January 2003, and for Verizon (Sub docket No. 000121C-TP) in June 2003. Commission staff captures the performance measurement data monthly from each ILEC and applies trending analysis. Staff reviews each ILEC's performance measurement plan at recurring intervals.

For BellSouth, the Commission established 90 wholesale performance measurements as well as a system of remedy payments called the Self-Effectuating Enforcement Mechanism (SEEM) plan. Remedy payments are applied if BellSouth fails to meet performance standards for key measurements as set by the Commission. From July 2003 to May 2004, BellSouth paid over $28 million in SEEM remedies to CLECs and the state of Florida. BellSouth's May 2004 aggregate performance measurement results indicate that BellSouth met 84% of the Commission mandated performance standards.

For Sprint, the Commission established 38 wholesale performance measurements. In September 2003, staff conducted the initial six-month review of Sprint's performance measures to address proposed revisions to Sprint's performance measurement plan. The revisions were adopted by the Commission in January 2004. Sprint's May 2004 aggregate performance measurement results indicate that Sprint met 86% of the Commission mandated performance standards. Sprint performs a root cause analysis of any measurement not meeting established standards for three consecutive months. These reports are provided monthly to the Commission. Sprint has not been ordered by the Commission to implement a remedy plan for noncompliant service.

For Verizon, the Commission established 44 wholesale performance measurements. Verizon's May 2004 aggregate performance measurement results indicate that Verizon met 89% of the Commission mandated performance standards. Verizon has not been ordered by the Commission to implement a remedy plan for noncompliant service.

E. SERVICE QUALITY DOCKETS AND INCUMBENT LOCAL EXCHANGE COMPANIES

ILECs are required by rule to consistently meet standards established to ensure their customers receive a high quality of service. Commission standards, for example, require a company to restore interrupted service within 24 hours in 95% of the instances reported. Commission standards also require an ILEC to install service 90% of the time in three working days from receipt of an application. The Commission conducts field evaluations of ILECs to verify compliance with the Commission's service standards. Each ILEC is required by rule to

submit quarterly reports to the Commission detailing its compliance with the established service standards. In September 1999, the Commission opened dockets to initiate show cause proceedings against the large ILECs for violation of Commission service standards.

It should be noted that these dockets were not opened based on complaints from consumers, but were predicated on data supplied by the ILECs in the Commission's "self-reporting" process.

1. Sprint

Sprint and the Office of Public Counsel (OPC) stipulated to an agreement in July 2000 that results in the company providing credits to its customers when it fails to meet the Commission's standards for out of service repair and primary service installations. The amount credited increases the longer it takes the company to repair or install the service. The agreement was approved by the Commission on November 7, 2000.

On July 15, 2003, the Commission (Docket No. 030430-TL) approved modifications and a two-year extension of the Service Guarantee Program. The modifications made Sprint's program comparable to BellSouth's Service Guarantee Program.

From July 2003, through May 2004, Sprint has paid its customers $1,454,575 for missing service installations and $474,444 for the out of service repair. In addition, it has posted, in the Community Service Fund, $95,000 for missing the business office answer time and the repair answer time. The Community Fund is for promoting Sprint's Lifeline service.

2. BellSouth

BellSouth has also signed an agreement with OPC that is similar to the Sprint settlement which the Commission approved on July 24, 2001. The settlement established automatic fixed credits to customers for missed commitments for service installation and an increased credit to customers for missed out of service repairs. On January 22, 2002, BellSouth filed a letter clarifying the starting and ending dates of its Service Guarantee Plan. This was approved by the Commission on February 22, 2002, (Docket No. 010097-TL) making the starting date March 1, 2002 and the end date March 1, 2005.

For the period from July 2003 through May 2004, BellSouth has paid its customers $571,000 for missed installations and $1,981,408 for missed out of service repairs.

F. Florida Telecommunications Competitive Interests Forum

In an effort to facilitate further development of a competitive local telephone market in Florida, the Commission, in 2001, initiated a collaborative forum for the purpose of addressing operational and logistical issues that arise between CLECs and ILECs. The Florida

Telecommunications Competitive Interest Forum (Forum) is an opportunity for any Florida local telecommunications provider to raise issues or topics related to facilitating a better functioning competitive market in Florida. The Forum provides a venue for parties to engage in dialogue in an effort to resolve issues in an informal setting rather than a formal, more litigious one. Since the inception in August, 2001 the Forum has convened monthly and has considered a host of issues related to billing and ordering functions. The primary focus during the later part of 2003 and thus far in 2004 has been the development of customer migration draft rules. The draft rules address the process and required information exchange necessary to facilitate CLEC-to-CLEC, CLEC-to-ILEC, and ILEC-to-CLEC customer transfers of service. A working subgroup of the Forum presented draft rules to the Forum in mid-2003 and noted that several areas of disagreement remained. The Forum is continuing to explore resolutions to these areas and is also considering the most efficient process to put the draft rules before the Commission.

G. LIFELINE AND LINK-UP PROGRAMS

Since the inception of the Lifeline and Link-Up programs in Florida, the participation rate for eligible subscribers has been low despite consistent efforts to increase consumer awareness about the programs' benefits. Over the past year, the Commission has spearheaded several important initiatives to increase Lifeline and Link-Up visibility and participation by eligible telephone subscribers.

In July 2003, the Commission initiated a joint Lifeline project with other state and federal agencies that resulted in the dissemination of Lifeline educational materials to all of Florida's nursing homes through the Agency for Health Care Administration's Long Term Care Monitoring Program and to more than 200 One-Stop Career Centers through Workforce Florida, Inc.'s 24 regional workforce boards. During 2004, the Commission formed additional partnerships with a number of organizations to provide Lifeline information to the public. These partners include county libraries, city and county consumer affairs offices, churches, senior centers and a university social work program. The Commission continues to evaluate and promote methods to increase Lifeline and Link-Up awareness and participation.

On April 29, 2004, the FCC released its Report and Order (Order), and Further Notice of Proposed Rulemaking regarding the Lifeline and Link-Up Programs. To improve these programs and to increase subscribership, the FCC's Order, in part: 1) added Temporary Assistance to Needy Families program (TANF) and National School Lunch free lunch program (NSL) to the program-based eligibility criteria; and, 2) added an income-based eligibility criterion of 135% of the Federal Poverty Guidelines (FPG).

On August 10, 2004, the Commission issued Order No. PSC-04-0781-PAA-TL, in Docket No. 040604-TL, adopting the NSL and an income-based criterion of 135% of the FPG for purposes of determining eligibility in the Lifeline and Link-Up programs in Florida. The Commission had previously adopted TANF as an eligibility criteria. In addition to the adoption of new eligibility criteria, the Commission ordered that Florida consumers who qualify for Lifeline assistance be allowed the option of electing a self-certification process by which the amount of Lifeline assistance provided would be based on the type of certification chosen by the consumer. Election to use the self-certification process provides a maximum monthly credit of

$8.25. On August 31, 2004, the Office of Public Counsel, BellSouth, Verizon, Sprint and, jointly, TDS Telecom, GT COM, and ALLTEL Florida filed petitions protesting the Commission's Order and requesting a formal evidentiary hearing.

In a separate but related docket, in May 2004, the Office of Public Counsel petitioned the Commission (Docket No. 040451-TP) to initiate rulemaking requiring local exchange telecommunications companies to provide Lifeline service within 30 days of customer certification. A staff workshop was held on August 19, 2004, to discuss the implications of rulemaking and to gain a better understanding of how Lifeline promotions could more effectively reach Florida's Lifeline eligible population.

CHAPTER VII: FEDERAL ACTIVITIES

A. THE FCC'S TRIENNIAL REVIEW ORDER ON UNE RULES

Under federal law, an ILEC is required to offer UNEs to CLECs at cost-based rates if such UNEs are "necessary" to the CLECs' provision of local service and if the CLECs would be "impaired" without access to such network elements. See Chapter I, Section A.2 above for a discussion of UNEs.

On February 20, 2003, the FCC adopted new rules pertaining to ILEC obligations to unbundle certain elements of their networks and to make these UNEs available to CLECs at cost-based (TELRIC) rates. The FCC released the text of its Order on August 21, 2003; the Order became effective on October 2, 2003. See Chapter III, Section B.2 above.

On March 2, 2004, while the Commission was in the midst of proceedings to implement these FCC rules for Florida, the U.S. Circuit Court of Appeals for the District of Columbia Circuit reversed major portions of the FCC's Triennial Review Order. Among other holdings, the D.C. Circuit held that:

- The FCC cannot delegate its authority to the states, except for fact-finding and other limited circumstances.
- The states cannot be granted the authority to make the impairment findings that the law requires the FCC to make.
- The FCC used an improper analysis in concluding that mass market switching was impaired nationally.
- The FCC used an improper analysis in concluding that certain dedicated transport was impaired.
- The Court's order vacating the offending rules was stayed until the later of 60 days from the date of the opinion (or May 1, 2004),[230] or the Court's denial of any petition for rehearing.

The FCC did not appeal the D.C. Circuit decision to the U.S. Supreme Court. In addition, the Solicitor General of the United States did not appeal the decision. Certain parties to the proceeding did appeal. The United States Supreme Court, however, declined to hear the appeal. As such, the decision of the D.C. Circuit became final on June 15, 2004. As a consequence, certain rules relating to pricing of UNEs ceased to exist. On August 20, 2004, the FCC released its Order and Notice of Proposed Rulemaking (NPRM) on unbundled access to

[230] The FCC and others then petitioned for a 45-day extension of the May 1, 2004 stay date. The request for extension to June 15, 2004 was granted.

network elements. In this Order, the FCC sets forth a 12-month plan with two phases to stabilize the market. First, on an interim basis, the FCC requires ILECs to continue providing unbundled access to switching, enterprise market loops, and dedicated transport under the same rates, term and conditions that applied under their interconnection agreements as of June 15, 2004. Second, the FCC has established measures for the next six months, if final unbundling rules have not been released. In the NPRM, the FCC seeks comment on how to respond to the D.C. Circuit's decisions.

B. REGULATORY FRAMEWORK FOR BROADBAND WIRELINE ACCESS TO THE INTERNET

The Commission filed comments in April 2002, to address the FCC's proposed regulatory framework. Most significant among the FCC's tentative conclusions was that wireline broadband Internet access be considered an Information Service and thus subject only to Title I regulation.[231] Depending on one's vantage, this would expressly remove DSL services from the unbundling requirements of the 1996 Act or recognize that DSL (i.e., broadband) is not subject to the 1996 Act in the first instance.

The FCC has not yet ruled in this proceeding. However, in August 2003, the FCC issued its long awaited Triennial Review Order that specifically exempted fiber technology to the home (i.e., technology to deliver broadband into the home) from future unbundling requirements.

In October 2003 the Ninth Circuit Federal Court of Appeals (Ninth Circuit) ruled that cable modem service is a combination of telecommunications service and information service. If upheld, this ruling would bring cable modem service under Title II as well as Title I of the Telecom Act. The decision vacated the FCC's Declaratory Ruling that cable modem service is an information service only and remanded the matter to the FCC for further consideration. The Ninth Circuit denied a request by the FCC to rehear the case but granted a stay of its decision until June 30, 2004. Both the FCC and the U.S. Solicitor General have appealed the case to the U.S. Supreme Court, which stays the Ninth Circuit decision until the case is resolved.

It is not expected that the FCC will issue a decision in the wireline broadband proceeding until the cable modem case has been decided.

C. IP-ENABLED SERVICES (VOICE OVER INTERNET PROTOCOL)

In July 2004, the Commission submitted reply comments to the FCC that endorsed an approach pursuant to which the FCC (from its national perspective) would apply a light regulatory touch to certain IP-enabled services. Florida legislation provides that voice-over-Internet protocol (VoIP) shall be free of "unnecessary regulation" regardless of the provider.

[231] Title II regulation applies to telecommunications carriers and includes rate-setting authority. Title I is a more flexible, less prescriptive classification that does not include rate-setting authority.

In recognition of the potential benefits of emerging VoIP technologies for Florida's consumers, the Florida Legislature has taken proactive steps to prevent unnecessary regulation of VoIP at the state level. Specifically, subsection 364.01(3), Florida Statutes, contains the following guidance to the Commission as it relates to the regulatory oversight of VoIP:

> The Legislature further finds that the provision of voice-over-Internet protocol (VoIP) free of unnecessary regulation, regardless of the provider, is in the public interest.

Under subsection 364.02(12), Florida Statutes, the 2003 Legislature further specified that:

> "Service" is to be construed in its broadest and most inclusive sense. The term *"service" does not include voice-over-Internet protocol service for purposes of regulation by the commission.* Nothing herein shall affect the rights and obligations of any entity related to the payment of switched network access rates or other intercarrier compensation, if any, related to voice-over-Internet protocol service. (emphasis added)

By exempting VoIP from all regulation, except for the neutral reservation regarding access charges, the Legislature has spoken as to what is "unnecessary." However, the Commission distinguished between economic and social regulation in its reply comments to the FCC.

The Commission proposed an approach that would not embrace economic regulation and that would focus on addressing any social policy issues that are determined too critical to be left to the market – such as 911, universal service, access for those with disabilities. Such an approach would ensure that consumers are protected while encouraging VoIP providers to invest.

In determining the optimal approach for the regulatory treatment to be afforded VoIP, the Commission suggested that the FCC respect the following principles:

- *Borderless Technology.* Because IP-enabled technologies like VoIP are borderless in nature, such technologies are interstate in nature and, therefore, are more appropriately addressed at the federal level than at the state level.

- *Economic Regulation – To Constrain Monopolies.* The provision of voice telecommunications was historically regulated heavily because it was a service provided by government-created monopolies. VoIP providers have no such monopoly.

- *Emerging Markets.* As reflected in Florida law, new technologies should *not* be subject to old rules designed to forge competition in monopoly markets.

- *Limited "Necessary" Regulation; Otherwise, Let the Market Work.* The full panoply of telecommunications regulation is not necessary to address public safety and

welfare issues (e.g., E911 and USF). Policymakers must distinguish between necessary and unnecessary regulation and allow the market to address issues that do not justify a regulatory solution.

Specifically, the Commission requested that the FCC:

(a) conclude IP-enabled services to be interstate in nature;

(b) assert its exclusive jurisdiction over interstate communications;

(c) establish a national policy, deregulatory in nature, to govern those IP-enabled services within the Commission's jurisdiction;

(d) not subject IP-enabled services to economic regulation; and

(e) only subject IP-enabled services within its jurisdiction to public policy regulation deemed important after affording the industry a sufficient period of time in which to develop solutions and standards for meeting public policy objectives.

D. DEVELOPMENT OF A UNIFIED INTERCARRIER COMPENSATION REGIME

Access and intercarrier compensation reform have the potential to affect carrier-to-carrier intrastate rates, universal service, cost allocation issues, infrastructure development, network structures, and various state policies. In August 2001, the Commission filed comments to oppose a federal bill-and-keep system to replace access and reciprocal compensation arrangements. The consequences of adopting a bill-and-keep system may directly impact and change the amounts of payments between carriers for completing each other's calls and hence alter each carrier's ability to compete. In 2001, based on the record before it, the Commission opposed moving to such an approach and recommended these issues be referred to a Joint Board or comparable state/federal negotiation process. The Commission further believes that issues related to universal service and jurisdictional separations should also be referred to the Universal Service and Separations Joint Boards, as appropriate.

The nation's intercarrier compensation regime is in dire need of reform. Virtually all stakeholders agree with this basic proposition. Stakeholders, however, do not agree on how to reform the regime.

The FCC has not yet issued a ruling in this proceeding and it is believed to have been anticipating an industry task force recommendation relating to intercarrier compensation. However, in June 2004 several members of the industry task force, including BellSouth, Verizon and a group of rural ILECs, discontinued their participation, significantly reducing the odds that a consensus could be achieved. On August 13, 2004, the task force made an ex parte filing of its proposal, and then on October 5 made a much more detailed filing in a brief. Other proposals exist as well. The FCC is expected to continue to move forward with reform plans but timing is uncertain.

E. UNIVERSAL SERVICE

1. Review of the Definitions of Universal Service

On July 14, 2003, the FCC issued an order supporting the recommendation of the Federal-State Joint Board on Universal Service (Joint Board) to maintain the existing list of supported services without modification. These services include:

- single-party service;
- voice grade access to the public switched telephone network;
- Dual Tone Multifrequency signaling or its functional equivalent;
- access to emergency services;
- access to operator services;
- access to interexchange service;
- access to directory assistance; and
- toll limitation services for qualifying low-income consumers.

This order was consistent with comments the Commission filed with the FCC to maintain the current list of supported services. The Commission has long been concerned about the size of this federal program and its impact on customer bills. In addition, the Commission stated that expanding the definition to include advanced services or high-speed Internet access is not warranted, in part because support is conditioned on the ability of a carrier to provide all of the supported services. As such, any proposal to expand the definition to include advanced services would not be technologically neutral. Furthermore, expanding the definition would, in most instances, increase the size of the fund. Given that more support is distributed outside Florida and that Florida is a net contributor to the fund, the Commission also expressed concern about the effects on Florida ratepayers.

2. Lifeline and Link-up Service for Low-Income Consumers

The Commission continues to be actively engaged with the Universal Service Joint Board and the FCC regarding Lifeline and Link-up programs. The Commission continues to support the original intent of the Lifeline program, which is to increase subscribership for low-income households that want, but cannot afford, telephone service. The Commission filed comments on August 18, 2003 encouraging the FCC to:

- Adopt an income-based eligibility standard;
- Collect additional data and conduct further analysis before specifying standards beyond that which is set forth in Florida state statute;
- Add the Temporary Assistance to Needy Families (TANF) program to the program based eligibility criteria;

- Add the National School Lunch (NSL) free lunch program to the program based eligibility criteria;
- Take caution in adopting self-certification due to the increased risk of waste, fraud, and abuse and adopt more rigid verification procedures;
- Adopt automatic enrollment as a means of certifying eligibility and increasing enrollment; and
- Advocate more vigorous outreach efforts.

The FCC issued its Order addressing these issues on April 29, 2004. The Order:

- Supports placing greater emphasis on accountability to enhance program integrity;
- Generally supports state flexibility in establishing their own Lifeline and Link-Up programs;
- Adds an income-based eligibility criterion at or below 135% of the of the Federal Poverty Guidelines (FPG);
- Adds the Temporary Assistance to Needy Families program (TANF) and the National School Lunch program (NSL) to the program-based eligibility criteria;
- Continues self-certification, under penalty of perjury, as the federal default rule;
- Encourages states to adopt automatic enrollment; and
- Adopts outreach guidelines to target low-income consumers more effectively.

In addition to the Order, the FCC sought further comment on whether the income-based criterion in the federal default eligibility criteria should be increased to at or below 150% of the FPG. In addition the FCC asked whether adoption of rules governing the advertisement of Lifeline and Link-Up would strengthen the operation of the programs.

3. Schools and Libraries Program

In April 2003, the FCC sought comment on certain rules governing the Schools and Libraries Universal Service support mechanism. The rules of interest will have an impact on the ability to control the size of the fund and the methodology for distribution of the funds. The Commission filed comments July 21, 2003, which urged the FCC to consider suggestions which would improve the safeguards and accountability of the E-rate program. Specifically, the Commission suggested that the Universal Service Administration Corporation (USAC) make available additional data about recipients of support and how the funds are used to increase confidence in the effectiveness and fairness of the program. The program has been heavily criticized for fraud and waste. In addition, the Commission made the following suggestions:

- Establish a comprehensive audit program for the E-rate fund;
- Establish a state-by-state E-rate cap on funds received;
- Establish more comprehensive rules governing how and when E-rate subsidized equipment may be transferred;
- Refine rules for the governing E-rate consultants and the competitive bidding process to minimize waste, fraud, and abuse; and

- Bolster outreach efforts through USAC initiated training opportunities on best practices for applying for funds and achieving program goals to target support more effectively.

The FCC released an order addressing these issues on August 13, 2004. In its order, the FCC adopted several of the Commission's suggestions, such as establishing a more comprehensive audit program, placing new requirements on the transfer of equipment purchased with E-rate funding, and enforcing the requirements for competitive bidding.

4. High-Cost Portability and ETC Designation

On February 27, 2004, the Joint Board released its Recommended Decision addressing universal service high-cost support portability and the process for designating eligible telecommunications carriers (ETC). A carrier must be designated as an ETC in order to receive high-cost or low-income support from the federal universal service program. These issues were referred to the Joint Board on November 8, 2002, by the FCC. In particular, the FCC asked the Joint Board to review the FCC's rules relating to high-cost universal service support in study areas in which a competitive ETC is providing services, as well as the FCC's rules regarding support for second lines.

In general, the Joint Board recommended that the FCC adopt permissive federal guidelines for states (and the FCC) to use when determining whether applicants are qualified to be designated as ETCs. Regarding the scope of support, a majority of the Joint Board members recommended that the FCC limit the scope of high-cost support to a single connection that provides access to the public telephone network (i.e., restate support based on primary lines). The Joint Board's recommendation to restate support based on primary lines is conditioned on the FCC's ability to develop competitively neutral rules and procedures that do not create undue administrative burdens. The Joint Board also offered three proposals designed to avoid or mitigate reductions in the amount of high-cost support flowing to rural carriers as a result of implementing a primary-line restriction.

5. Referral of High-Cost Support Methodology for Rural Telecommunications Carriers

The FCC asked the Joint Board to review its rules relating to the high-cost universal service support mechanisms for rural carriers and to determine the appropriate rural mechanism to succeed the five-year plan adopted in the Rural Task Force Order. The FCC specified that the Joint Board should consider how support can be effectively targeted to rural telephone companies serving the highest cost areas, while protecting against excessive fund growth. The outcome of this proceeding will likely affect future growth in the federal high-cost fund and Florida ratepayer contributions. In 1998, the high-cost support for rural and non-rural carriers in total was $1.69 billion. By comparison in 2003, the high-cost support for rural carriers was $2.41 billion and $856 million for non-rural carriers. The Commission will monitor the proceeding and file comments if appropriate.

F. REPORTING REQUIREMENTS FOR INCUMBENT LOCAL EXCHANGE COMPANIES

Previously, the Commission filed comments expressing concern with eliminating some existing accounting rules and not providing accounting for new technologies that are essential for monitoring and implementing the competitive mandates and safeguards of the 1996 Telecommunications Act.

The FCC's accounting rules provide essential information to Florida in evaluating possible cross-subsidization and promoting competition. The Uniform System of Accounts (USOA) serves as the basis for accounting data that are used to protect ratepayers from improper cross-subsidies, to determine interstate/intrastate cost and revenue splits, to determine the cost of universal service supported services, and to serve as the basis of many of the inputs to the cost proxy models used in determining universal service cost levels and appropriate UNE prices.

On September 5, 2002, the FCC voted to convene a Joint Conference in order to evaluate the accounting requirements that state and federal regulators need to carry out their responsibilities. Commissioner J. Terry Deason was appointed by the FCC to the Joint Conference.

On December 12, 2002, the FCC, on behalf of the Joint Conference, sought public comment with respect to its comprehensive review of regulatory accounting and related reporting requirements. On October 9, 2003, the Joint Conference on Accounting Issues submitted a report to the FCC detailing a series of proposed recommendations to its accounting and reporting rules. Specifically, the Joint Conference sought comment on a number of the issues that were addressed in the FCC's Phase II Accounting Order. In addition, the Joint Conference requested comment on broader questions, including whether there are additional accounting requirements that should be adopted in order to ensure that federal and state regulators have sufficient information to protect consumers, monitor the market place, and promote investment and competition.

The Commission filed comments that recommended that all new accounts identified in the request for comments be adopted so long as the benefits outweigh the costs. The comments also noted the limited availability of financial data in a uniform and standard format outside of the Automated Reporting Management Information System (ARMIS) reports. This information is critical to states for establishing UNE prices, interconnection rates, universal service support, and assessing service quality trends and network functionality, capabilities and reliability.

The FCC released its order on June 24, 2004, responding to the Joint Conference recommendations. The FCC adopted seven of the seventeen Joint Conference recommendations. Among the accepted recommendations was the decision to reinstate certain accounts previously eliminated including accounts for Directory Revenue, Operator Services, Directory Assistance and Customer Services. While recommendations for new separate accounts for several UNE related items were denied as overly burdensome or premature, the FCC did establish subsidiary

categories for the identification of these revenues. Finally, some ARMIS reporting items will no longer be required for carriers deemed to be non-dominant in the markets they serve.

In general, the FCC decision is reflective of a general trend toward reduced reporting requirements for ILECs.

G. REVIEW OF TELRIC PRICING RULES FOR UNBUNDLED NETWORK ELEMENTS

In September of 2003, the FCC issued a Notice of Proposed Rulemaking regarding its rules for the pricing of Unbundled Network Elements and the resale of service by the incumbent local exchange carriers. The methodology embodied in the current rules is referred to as Total Element Long-Run Incremental Cost or TELRIC. The TELRIC methodology has been very controversial since its adoption because it is based largely on hypothetical networks employing the latest available technologies. Incumbent local exchange companies have argued that the methodology leads to UNE rates that are not reflective of real world networks and existing technologies and are substantially below real world costs to provide services. State commissions have pricing authority over UNEs and many have conducted resource intensive, time intensive evidentiary proceedings to implement the TELRIC pricing rules. As set forth below, the Commission remains concerned that pricing rules be grounded in reality, as opposed to purely hypothetical regulatory constructs.

The NPRM tentatively concludes that TELRIC rules should more accurately account for real world attributes of an incumbent local exchange company's network in the deployment of forward-looking costs. The Commission agrees. The scope of the TELRIC review is broad and will address such key factors as cost-of-capital, depreciation expense, rate structure, rate deaveraging, how UNE price setting should relate to Universal Service funding and many other factors. In addition, procedural and implementation matters have been identified that may create the need for state commissions to conduct additional evidentiary proceedings to implement the new pricing rules. The potential impacts of changes to the UNE pricing rules are impossible to predict; however, given the scope of the proceeding, the impacts could be significant.

The Commission filed comments (January 4, 2004) supporting the FCC's tentative conclusion that the "TELRIC rules should more closely account for the real-world attributes of the routing and topography of an incumbent's network in the development of forward-looking costs." The Commission further commented that it believes it is appropriate to determine costs for UNEs that reflect the real-world characteristics of ILECs' networks because UNEs are provided by the ILEC using such a network, not a hypothetical network. Finally, the Commission noted that TELRIC rules should not result in UNE prices that are artificially low such that CLECs would be disincented from using a facilities-based entry strategy.

The FCC has not yet issued an order in this proceeding.

H. LOCAL NUMBER PORTABILITY: WIRELESS TO WIRELESS & WIRELESS TO WIRELINE

In 1996, the FCC adopted the *First Report and Order and Further Notice of Proposed Rulemaking (First Report and Order)* in its Telephone Number Portability docket. This order implemented Section 251(b) of the 1996 Telecommunications Act (the 1996 Act) which requires local exchange carriers (LECs) to provide local number portability, (LNP), to the extent technically feasible, in accordance with requirements prescribed by the FCC. Although the 1996 Act excludes Commercial Mobile Radio Service (CMRS) providers from the definition of local exchange carrier, and therefore from the Section 251(b) obligation to provide number portability, the FCC extended this obligation to CMRS providers. The FCC determined that such an obligation, which would enable wireless subscribers to keep their telephone numbers when changing carriers, would enhance competition between wireless carriers as well as promote competition between wireless and wireline carriers.

After extending the wireless LNP deadline several times, the FCC established November 24, 2003, as the date by which wireless carriers in the top 100 MSAs must be capable of wireless-to-wireless and wireless-to-wireline porting and wireline carriers must be capable of wireline-to-wireless porting. The deadline was extended to May 24, 2004, for all other affected carriers.

As expected, the transition in November 2003 resulted in some complaints. The majority of complaints lodged were related to a particular carrier and most of those were eventually resolved. In May 2004 LNP was implemented for the remainder of carriers and again there was relatively minor disruption to most customers. A mitigating factor in suppressing the volume of customers choosing to switch carriers may have been the fact that typical wireless subscription requires a minimum duration contract with early termination fees. Many customers may have opted to remain with their current carrier until their existing contract expires in order to avoid termination fees.

I. NASUCA TRUTH IN BILLING PETITION TO THE FCC

The National Association of State Utility Consumer Advocates (NASUCA) sought a ruling from the FCC prohibiting the carriers from imposing monthly line-item charges, surcharges, or other fees on customers' bills unless such charges have been expressly mandated by a regulatory agency. In comments to the FCC on August 5, 2004, the Commission expressed that over the past several years, the clear policy choice has been for more specificity, not less, on customer bills. Further, the NASUCA approach could turn out to be burdensome to the companies (in terms of increased administrative burden, another shift in billing practices, increased costs) and, at the same time, not beneficial to consumers (possible increased costs associated with changes in billing practices and less specificity on bills).

As a general principle, companies in a competitive marketplace should have the discretion and the flexibility to recover certain costs from their customers, provided they do not

violate any applicable rules or regulations. Without question, government mandates and regulatory activities impose costs – often substantial costs – on telecommunications carriers. Some wireline and wireless telecommunications carriers impose separate monthly surcharges and fees that are not mandated by government but that may result, directly or indirectly, from government mandates and regulatory activities. These carriers have opted to specifically identify such charges.

Disclosure of such compliance costs to consumers through line items or surcharges would appear to provide consumers more information – not only about what they are being billed for – but also about the actions of their government in promoting certain social policies. As the telecommunications industry continues to become increasingly competitive, consumers should have access to more detailed information in order to make more informed choices about the services for which they are paying – a principle that supports breaking down costs on a consumer's bill and disclosing the nature of those costs.

Numerous avenues currently exist for consumer complaints regarding carrier billing. Whether enforcement of existing federal and state legal requirements, as opposed to new legal requirements, could adequately address alleged improper billing practices, is an important determination to be made prior to wholesale reform of billing requirements. The extent to which current consumer protection laws do not address such behavior should be assessed prior to the articulation of a new regulatory paradigm, stated the Commission.

The Commission suggested an alternative rational approach to a declaratory ruling, an approach that would examine and document the claims presented in the NASUCA petition in a systematic, collaborative manner. This approach would permit the FCC to examine the nature and extent of billing problems and determine what, if any, remedy is appropriate and whether it would be best handled through a generally applicable rulemaking or on a case-by-case basis at the state or federal level. This approach would determine whether the problems identified by NASUCA are widespread or merely the result of a few "bad apples."

The Commission urged that an evidentiary record should be developed prior to consideration of any additional mandated billing requirements for carriers. The Petitioner should show that the approach is good for the consumer. Such a proceeding would create a record on which the FCC could base any conclusions and potential remedies. The FCC should explore:

- what specific charges are at issue;
- how many complaints on this topic have been filed at the FCC, individual state commissions, other state and federal agencies that receive and account for telecommunications billing complaints, and with carriers;
- which specific carriers, if any, are engaging in misleading or deceptive practices and surcharges;
- what costs would be incurred by carriers if the petition were granted;
- could there be an industry solution that does not include a mandate by the FCC – something similar to the voluntary Code of Conduct by the wireless industry;
- should options that include customer education on how to understand charges for telephone service be pursued prior to additional rulemaking;

- what additional cost would be imposed on the companies to restructure the bills to consumers and would the marketplace provide a better approach.

The Commission urged the FCC to take time to review the underlying problems that the NASUCA petition proposes to remedy. The review should address the nature and scope of any alleged improper billing, whether existing laws can address the issue, whether alternatives exist to NASUCA's proposal, and the monetary and other costs and benefits of the NASUCA proposal and of alternatives to that proposal.

To the extent the FCC determines that certain carriers violate federal laws, rules, or orders of the FCC pertaining to telecommunications billing and/or consumer protection, the FCC should take the appropriate enforcement action against those individual carriers. Absent such a review, policymakers cannot be sure that the solution proposed in the petition will not create a whole new host of issues, without providing a commensurate benefit to consumers.

APPENDIX A: CLECS PROVIDING SERVICE

CLEC	Resale	UNE-P	Switch-Based
AA Tele Com	Residential / Business	Residential / Business	
Access Communications, LLC.		Residential / Business	
Access Integrated Networks, Inc.	Residential / Business	Residential / Business	
Access Point, Inc.	Residential / Business	Residential / Business	
ACN Communication Services, Inc.		Residential	
Actel Wireless, Inc.	Residential		
Adelphia	Business		
Advantage Group of Florida Communications, L.L.C.	Residential	Residential / Business	
Allegiance Telecom of Florida, Inc.	Business	Business	Business
ALLTEL Communications, Inc.	Business		Residential / Business
Alternative Phone, Inc.	Residential / Business	Residential / Business	
American Dial Tone	Residential / Business	Residential	
American Fiber Network, Inc.	Residential / Business		
America's Wireless Choice, Inc.	Residential		
AmeriMex Communications Corp.	Residential / Business	Residential / Business	
ANEW Broadband, Inc.	Residential / Business	Residential / Business	
Anns Communication	Residential		
AT&T Communications of the Southern States, LLC	Residential / Business	Residential / Business	Business
Atlantic Phone	Residential / Business	Residential / Business	
Atlantic.Net Broadband, Inc.	Residential / Business	Residential	
Auglink Communications, Inc.	Residential / Business	Residential / Business	
Baldwin County Internet/DSSI Service, L.L.C.			Residential
Basic Phone, Inc.	Residential		
BCN Telecom, Inc.	Residential / Business	Residential / Business	
Bellerud Communications, LLC	Residential		
BellSouth Telecommunications, Inc. CLEC	Residential / Business		Business
Birch	Business	Business	
BTI	Residential / Business	Residential / Business	Business
Budget Phone, Inc.	Residential	Residential	
BudgeTel Systems, Inc.	Residential		
BullsEye Telecom, Inc.		Residential / Business	
Buy Tel Communications, Inc.	Residential		
CariLink International, Inc.	Residential	Residential / Business	
CAT Communications International, Inc.	Residential / Business	Residential	
CHOICE ONE Telecom	Residential / Business		
CI2, Inc.	Business		
Cinergy Communications Company		Residential / Business	
City of Daytona Beach			Business
Citywide Tel	Residential / Business	Residential / Business	
Coastal Telephone Connections, Inc. d/b/a Coastal Connections	Residential		

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CLEC	Resale	UNE-P	Switch-Based
Comcast Phone of Florida, LLC d/b/a Comcast Digital Phone			Residential / Business
Covad Communications Company	Residential		
Curbside Communications		Residential / Business	
Cypress Communications Operating Company, Inc.		Business	
DayStar Communications	Business		Business
Deland Actel, Inc.	Residential / Business	Residential / Business	
Delta Phones, Inc.	Residential / Business		
Dialtone Telecom, LLC	Residential / Business		
Double Link Communications, Inc.	Residential		
DPI Teleconnect, L.L.C.	Residential	Residential	
DSL Telecom, Inc.	Residential / Business	Residential / Business	
DSLi	Residential / Business	Residential / Business	Residential / Business
Eagle Telecommunications, Inc.	Residential / Business	Residential / Business	
Easy Telephone Services Company	Residential / Business	Residential / Business	
EPICUS, Inc.	Residential / Business	Residential / Business	
Ernest Communications, Inc.	Business	Residential / Business	
EveryCall Communications, Inc.		Residential / Business	
Excel Telecommunications, Inc.		Residential	
Express Phone Service	Residential	Residential / Business	
EZ Talk Communications, L.L.C.	Residential / Business		
FDN Communications	Residential / Business	Residential / Business	Residential / Business
FLATEL, Inc.	Residential / Business	Residential / Business	
Florida Comm South	Residential	Residential / Business	
Florida Multi Media	Business		Residential
Florida Phone Service, Inc.	Residential	Residential / Business	
Florida Telephone Services, LLC	Residential / Business	Residential / Business	
Focal Communications Corporation of Florida	Business		Business
FPL FiberNet, LLC		Business	
Georgia Telephone Services, Inc.	Residential		
Global Crossing	Residential / Business	Business	
Global NAPS, Inc.		Residential / Business	
Globcom, Inc.	Residential		
Granite Telecommunications, LLC	Business	Business	
Gulf Coast Telecom, Inc.	Residential		
Harbor Communications, LLC		Business	Business
High Tech Communications	Residential / Business		
HOLMES COUNTY E-911	Business		
ICG Telecom Group, Inc.	Business		
IDS Telcom LLC	Residential / Business	Residential / Business	Business
IDT		Residential / Business	
Instatone	Residential / Business		
Intermedia Communications, Inc.	Residential / Business		

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CLEC	Resale	UNE-P	Switch-Based
ISN Communications	Residential / Business	Residential / Business	
ITC^DeltaCom	Residential / Business	Residential / Business	Business
KMC	Residential / Business	Business	Business
Knology of Florida, Inc.	Residential / Business		Residential / Business
LecStar Telecom, Inc.	Residential / Business	Residential / Business	
Level 3 Communications, LLC			Business
Lightyear Communications, Inc.		Residential / Business	
Local Line America, Inc.	Residential		
Lone Star State Telephone Co.	Residential		
M.T.G.	Residential / Business		
MCI Worldcom	Residential / Business	Residential / Business	Business
MET Communications, Inc.	Residential		
Metro Teleconnect Companies, Inc.	Residential	Residential	
Metropolitan Fiber Systems of Florida, Inc.	Residential / Business	Residential / Business	
MetTel	Business	Business	
Midstate Telecommunications	Residential		
Momentum Business Solutions, Inc.	Business	Residential / Business	
MY TEL INC.	Residential / Business		
Myatel Corporation	Residential / Business		
National Telecom & Broadband Services, LLC	Residential / Business	Residential / Business	
Navigator Telecommunications, LLC	Residential / Business	Residential / Business	
Network Telephone Corporation	Residential / Business	Residential / Business	Business
NewPhone	Residential	Residential	
NewSouth Communications Corp.	Residential / Business	Business	Business
North American Telecommunications Corporation	Residential / Business	Residential / Business	
NOW Communications, Inc.	Residential / Business	Residential / Business	
NuVox Communications, Inc.		Business	Business
OneStar Long Distance, Inc.	Residential	Residential / Business	
Orlando Telephone Company	Residential / Business		Residential / Business
PaeTec Communications, Inc.	Residential / Business	Business	Business
Phone Club Corporation	Residential / Business		
Phone Link, Inc.	Residential	Residential	
Phone Out/Phone On	Residential		
Phones For All	Residential	Residential	
PowerNet Global Communications		Residential	
Quality Telephone Inc.	Residential	Residential	
QuantumShift Communications, Inc.	Business		
Qwest Communications Corporation	Business		
Re Connection Connection	Residential / Business		
ReTel Communications, Inc.	Residential / Business	Residential / Business	
Rightlink USA, Inc.	Residential / Business	Residential / Business	
Ring Connection, Inc.	Residential / Business		
Saluda Networks Incorporated		Residential / Business	

APPENDIX A: CLECS PROVIDING SERVICE

CLEC	Resale	UNE-P	Switch-Based
SanTel Communications	Residential / Business	Residential / Business	
SBC Telecom, Inc.	Residential / Business		Residential / Business
Second Chance Phone	Residential / Business		
ServiSense.com, Inc.	Residential / Business		
Smart City Solutions, LLC			Business
SNC Communications, LLC		Residential / Business	
Source One Communications, Inc. d/b/a Quick Connects	Residential / Business		
Southeastern Services, Inc.	Residential / Business		
Southern ReConnect, Inc.	Residential		
Spectrotel, Inc.		Residential / Business	
Speedy Reconnect, Inc.	Residential		
Sprint Communications Company Limited Partnership	Residential	Residential / Business	Business
STS	Residential / Business	Residential / Business	
Sun Tel USA, Inc.	Residential / Business		
Suntel Metro, Inc.		Residential / Business	
Supra Telecommunications and Information Systems, Inc.	Residential / Business	Residential / Business	Residential
Symtelco, LLC	Business	Business	
T3 Communications, LLC	Residential	Residential / Business	Business
Talk America Inc.	Residential / Business	Residential / Business	
Tallahassee Telephone Exchange, Inc.	Residential / Business	Residential / Business	
Tel West Communications, LLC	Residential		
TelCove Investment			Business
TelCove of Jacksonville			Business
TeleConex	Residential	Residential	
TELECUBA, INC.	Residential / Business	Residential	
Telefyne Incorporated	Residential		
Telepak Networks, Inc.	Business		
Telephone One Inc.	Residential / Business	Residential / Business	
THC Internet Solutions	Residential / Business		
The Gulas Group, L.L.C.		Business	
The Sunshine State Telephone Company, L.L.P.		Residential / Business	
TIBURON TELECOM INC	Business		
Tiburon Telecom, Inc.	Residential / Business		
Time Warner Telecom of Florida, L.P.	Business		Business
Trans National Communications International, Inc.		Residential	
Tristar Communications Corp.	Residential / Business	Residential / Business	
Unicom Communications, LLC	Residential / Business		
Unitel	Residential / Business	Residential / Business	
Universal Telecom, Inc.	Residential		
Unknown	Residential / Business	Residential / Business	

APPENDIX A: CLECS PROVIDING SERVICE			
CLEC	**Resale**	**UNE-P**	**Switch-Based**
US LEC of Florida Inc.	Business		Business
USA Telecom, Inc.	Residential / Business	Residential / Business	
USTEL	Residential	Residential / Business	
Utilities Commission, New Smyrna Beach	Residential / Business	Residential / Business	
VarTec Telecom, Inc.		Residential / Business	
Verizon Avenue	Residential		
Winstar Communications, LLC	Business		
XO Florida, Inc.	Business		Business
Xspedius	Residential / Business	Residential / Business	Business
Z Tel Communications, Inc.	Business	Residential / Business	Business

APPENDIX B: EXCHANGES WITH A CLEC PROVIDER

Exchange	Total CLEC Residential Providers (2003)	Total CLEC Residential Providers (2004)	Total CLEC Business Providers (2003)	Total CLEC Business Providers (2004)
Alachua	6	6	0	0
Alford	12	15	1	2
Alligator Point	0	0	0	0
Altha	2	2	0	0
Apalachicola	1	1	0	0
Apopka	30	36	17	21
Arcadia	20	24	6	9
Archer	21	25	6	12
Astor	13	13	3	3
Avon Park	23	20	8	9
Baker	16	13	4	4
Baldwin	17	15	14	19
Bartow	18	19	10	13
Belleglade	30	36	15	25
Belleview	25	24	14	19
Beverly Hills	19	26	4	7
Blountstown	2	2	0	0
Boca Grande	2	0	1	1
Boca Raton	51	57	43	53
Bonifay	16	17	3	6
Bonita Springs	22	24	7	13
Bowling Green	11	11	1	1
Boynton Beach	46	52	39	51
Bradenton	28	24	18	19
Branford	7	9	0	0
Bristol	1	1	0	0
Bronson	25	25	9	13
Brooker	4	3	0	0
Brooksville	33	37	22	26
Bunnell	25	26	16	21
Bushnell	24	22	7	8
Callahan	4	6	0	2
Cantonment	0	26	1	19
Cape Coral	22	28	8	16
Cape Haze	16	16	5	5
Carrabelle	1	1	0	0
Cedar Key	6	4	11	13
Celebration	0	0	2	3
Century[232]	15	17	5	7
Chattahoochee	2	1	0	0

[232] Updated data for Century.

APPENDIX B: EXCHANGES WITH A CLEC PROVIDER

Exchange	Total CLEC Residential Providers (2003)	Total CLEC Residential Providers (2004)	Total CLEC Business Providers (2003)	Total CLEC Business Providers (2004)
Cherry Lake	9	23	0	14
Chiefland	25	26	18	24
Chipley	35	22	21	23
Citra	4	4	0	0
Clearwater	34	31	28	27
Clermont	25	25	14	15
Clewiston	20	21	6	9
Cocoa	45	50	34	46
Cocoa Beach	23	36	18	32
Coral Springs	53	77	35	61
Cottondale	8	10	4	5
Crawfordville	12	12	3	5
Crescent City	5	6	0	0
Crestview	23	23	11	10
Cross City	17	16	10	14
Crystal River	19	21	8	11
Dade City	18	20	10	11
Daytona Beach	54	56	41	52
DeBary	36	43	23	28
Deerfield Beach	43	53	37	47
DeFuniak Springs	21	23	8	9
Deland	36	39	22	32
DeLeon Springs	16	23	10	11
Delray Beach	47	56	34	52
Destin	15	18	9	12
Dowling Park	4	1	0	0
Dunnellon	26	30	14	21
East Orange	26	32	16	20
East Point	1	1	0	0
Eau Gallie	44	47	33	44
Englewood	13	12	9	13
Eustis	29	29	10	11
Everglades	3	4	1	2
Fernadina Beach	38	40	23	31
Flagler Beach	15	19	17	22
Florahome	2	4	0	1
Florida Sheriffs' Boys Ranch	2	3	0	0
Forest	15	15	5	5
Freeport	11	11	4	5
Frostproof	11	12	3	6
Ft. Lauderdale	73	82	54	70

APPENDIX B: EXCHANGES WITH A CLEC PROVIDER

Exchange	Total CLEC Residential Providers (2003)	Total CLEC Residential Providers (2004)	Total CLEC Business Providers (2003)	Total CLEC Business Providers (2004)
Ft. Meade	13	10	1	2
Ft. Myers	37	34	20	25
Ft. Myers Beach	11	9	6	5
Ft. Pierce	44	50	28	43
Ft. Walton Beach	28	26	12	16
Ft. White	6	6	0	0
Gainesville	54	54	30	37
Geneva	15	0	9	0
Glendale	6	6	0	0
Graceville	19	22	8	15
Grand Ridge	14	15	1	2
Green Cove Springs	33	36	19	23
Greensboro	1	1	1	0
Greenville	10	14	1	2
Greenwood	10	8	0	1
Gretna	1	3	0	0
Groveland	20	18	7	8
Gulf Breeze	29	31	21	30
Haines City	27	23	13	16
Hastings	2	5	0	0
Havana	30	31	10	13
Hawthorne	22	24	9	15
High Springs	6	5	0	0
Hilliard	6	4	0	0
Hobe Sound	24	29	14	25
Holley-Navarre	24	29	14	22
Hollywood	69	77	45	59
Homestead	50	58	36	47
Homosassa	23	22	6	7
Hosford	1	0	0	0
Howey-in-the-Hills	6	9	1	3
Hudson	21	20	15	17
Immokalee	21	20	6	8
Indian Lake	3	3	2	2
Indiantown	0	0	0	0
Interlachen	6	8	0	0
Inverness	18	26	11	14
Jacksonville	67	76	28	64
Jacksonville Beach	67	2	49	12
Jasper	3	6	0	0
Jay	0	18	1	9

APPENDIX B: EXCHANGES WITH A CLEC PROVIDER

Exchange	Total CLEC Residential Providers (2003)	Total CLEC Residential Providers (2004)	Total CLEC Business Providers (2003)	Total CLEC Business Providers (2004)
Jennings	3	6	0	0
Jensen Beach	24	30	13	22
Julington	17	1	16	3
Jupiter	33	37	21	37
Keaton Beach	1	1	0	0
Kenansville	4	5	3	3
Keys	44	45	28	42
Keystone Heights	30	27	11	14
Kingsley Lake	1	3	1	0
Kissimmee	34	42	18	27
La Belle	20	19	6	8
Lady Lake	20	23	7	12
Lake Buena Vista	0	1	4	4
Lake Butler	5	6	0	0
Lake City	38	40	24	31
Lake Placid	19	16	4	8
Lake Wales	23	19	9	14
Lakeland	31	27	15	19
Laurel Hill	1	0	0	0
Lawtey	14	15	1	2
Lee	10	8	1	2
Leesburg	27	30	17	19
Lehigh Acres	25	25	9	12
Live Oak	7	8	0	1
Luraville	3	5	0	0
Lynn Haven	25	24	12	20
Macclenny	2	2	3	2
Madison	13	16	9	9
Malone	12	13	0	0
Marco Island	9	7	8	10
Marianna	18	22	10	12
Maxville	12	15	8	12
Mayo	4	4	0	0
McIntosh	6	7	0	0
Melbourne	52	50	35	51
Melrose	4	5	0	0
Miami	78	85	65	81
Micanopy	13	0	4	0
Middleburg	36	37	16	24
Milton	28	32	18	25
Molino	0	0	0	0

APPENDIX B: EXCHANGES WITH A CLEC PROVIDER

Exchange	Total CLEC Residential Providers (2003)	Total CLEC Residential Providers (2004)	Total CLEC Business Providers (2003)	Total CLEC Business Providers (2004)
Monticello	18	22	6	7
Montverde	11	14	1	2
Moore Haven	11	11	2	3
Mount Dora	24	26	9	12
Mulberry	16	15	9	7
Munson	8	0	1	0
Myakka	5	6	1	2
Naples	29	29	14	20
New Port Richey	26	20	19	19
New Smyrna Beach	30	35	27	38
Newberry	27	28	9	12
North Cape Coral	25	0	10	3
North Dade	64	71	47	57
North Ft Myers	29	27	10	17
North Naples	22	21	12	17
North Port	14	15	7	9
Oak Hill	15	19	7	14
Ocala	32	35	16	22
Ocklawaha	15	15	3	3
Okeechobee	21	22	9	10
Old Town	19	21	4	10
Orange City	27	24	15	17
Orange Park	41	46	30	38
Orange Springs	4	5	0	0
Orlando	67	76	53	62
Oviedo	34	36	31	38
Pace	27	30	16	19
Pahokee	27	31	10	20
Palatka	42	41	25	27
Palm Coast	26	34	21	30
Palmetto	18	16	11	14
Panacea	4	2	1	2
Panama City	43	45	28	37
Panama City Beach	36	32	23	27
Paxton	0	1	0	0
Pensacola	46	52	34	41
Perrine	55	66	42	52
Perry	1	1	0	0
Pierson	22	23	9	14
Pine Island	11	14	2	3
Plant City	18	16	12	16

APPENDIX B: EXCHANGES WITH A CLEC PROVIDER

Exchange	Total CLEC Residential Providers (2003)	Total CLEC Residential Providers (2004)	Total CLEC Business Providers (2003)	Total CLEC Business Providers (2004)
Polk City	12	11	6	7
Pomona Park	21	23	5	10
Pompano Beach	62	3	49	14
Ponce de Leon	12	10	5	6
Ponte Verde Beach	20	28	26	27
Port Charlotte	30	26	11	16
Port St Joe	2	1	0	0
Port St. Lucie	40	50	26	35
Punta Gorda	20	19	8	12
Quincy	1	5	0	0
Raiford	1	3	0	0
Reedy Creek	25	10	20	5
Reynolds Hill	11	0	0	0
Salt Springs	7	7	1	1
San Antonio	11	11	4	4
Sanderson	1	2	1	1
Sanford	53	56	41	41
Sanibel-Captiva Island	2	4	5	6
Santa Rosa Beach	8	10	7	9
Sarasota	32	23	20	23
Seagrove Beach	8	8	4	7
Sebastian	34	35	20	31
Sebring	17	20	8	12
Shalimar	18	18	6	8
Silver Springs Shores	19	21	6	7
Sneads	12	9	2	3
Sopchoppy	5	4	0	1
Spring Lake Hills	12	13	6	5
St. Augustine	42	46	29	39
St. Cloud	26	31	12	16
St. Johns	12	0	11	4
St. Marks	4	3	2	2
St. Petersburg	43	35	24	29
Starke	19	24	9	10
Stuart	37	42	33	46
Sunny Hills	14	16	4	6
Tallahassee	38	39	19	24
Tampa	48	40	27	29
Tarpon Springs	26	25	18	20
Tavares	18	22	11	12
The Beaches	2	0	0	0

APPENDIX B: EXCHANGES WITH A CLEC PROVIDER

Exchange	Total CLEC Residential Providers (2003)	Total CLEC Residential Providers (2004)	Total CLEC Business Providers (2003)	Total CLEC Business Providers (2004)
Titusville	34	41	28	37
Trenton	22	25	13	16
Trilacoochee	15	15	3	3
Tyndall AFB	0	0	0	0
Umatilla	26	22	4	5
Valparaiso	23	21	9	14
Venice	20	17	15	19
Vernon	15	15	6	11
Vero Beach	41	50	28	40
Waldo	4	7	0	0
Walnut Hill	0	0	0	0
Wauchula	18	16	4	6
Weekiwachee Springs	0	40	2	27
Weirsdale	0	0	0	0
Welaka	22	19	7	9
Wellborn	3	7	0	0
West Kissimmee	1	1	6	11
West Palm Beach	68	82	53	67
Westville	10	10	0	0
Wewahitchka	31	1	23	0
White Springs	4	5	0	0
Wildwood	26	25	9	12
Williston	18	23	5	6
Windermere	7	13	9	8
Winter Garden	29	31	17	22
Winter Haven	28	25	17	19
Winter Park	39	46	21	27
Yankeetown	21	17	8	12
Youngstown-Fountain	22	27	8	10
Yulee	26	25	15	18
Zephyr Hills	19	20	15	15
Zolfo Springs	9	9	2	3

APPENDIX C: PERCENTAGE OF CLEC ACCESS LINES BY EXCHANGE

Exchange	% of Residential Access Lines		% of Business Access Lines	
	CLEC Providers		CLEC Providers	
	(2003)	(2004)	(2003)	(2004)
Alachua	> 0 to 1%	> 0 to 1%	0	0
Alford	1% to 5%	1% to 5%	1% to 5%	25% to 30%
Alligator Point	0	0	0	0
Altha	> 0 to 1%	> 0 to 1%	0	0
Apalachicola	> 0 to 1%	> 0 to 1%	0	0
Apopka	1% to 5%	1% to 5%	15% to 20%	10% to 15%
Arcadia	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Archer	1% to 5%	1% to 5%	20% to 25%	25% to 30%
Astor	1% to 5%	1% to 5%	5% to 10%	5% to 10%
Avon Park	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Baker	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Baldwin	5% to 10%	5% to 10%	15% to 20%	30% to 35%
Bartow	1% to 5%	1% to 5%	1% to 5%	20% to 25%
Belleglade	25% to 30%	30% to 35%	15% to 20%	25% to 30%
Belleview	1% to 5%	1% to 5%	5% to 10%	10% to 15%
Beverly Hills	> 0 to 1%	> 0 to 1%	1% to 5%	5% to 10%
Blountstown	1% to 5%	1% to 5%	0	0
Boca Grande	> 0 to 1%	0	> 0 to 1%	5% to 10%
Boca Raton	10% to 15%	10% to 15%	35% to 40%	35% to 40%
Bonifay	1% to 5%	1% to 5%	> 0 to 1%	1% to 5%
Bonita Springs	> 0 to 1%	> 0 to 1%	10% to 15%	10% to 15%
Bowling Green	1% to 5%	1% to 5%	> 0 to 1%	1% to 5%
Boynton Beach	10% to 15%	10% to 15%	30% to 35%	35% to 40%
Bradenton	1% to 5%	1% to 5%	15% to 20%	15% to 20%
Branford	1% to 5%	1% to 5%	0	0
Bristol	1% to 5%	> 0 to 1%	0	0
Bronson	1% to 5%	1% to 5%	1% to 5%	5% to 10%
Brooker	> 0 to 1%	> 0 to 1%	0	0
Brooksville	10% to 15%	5% to 10%	15% to 20%	15% to 20%
Bunnell	5% to 10%	1% to 5%	10% to 15%	15% to 20%
Bushnell	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Callahan	> 0 to 1%	> 0 to 1%	0	35% to 40%
Cantonment	0	5% to 10%	5% to 10%	25% to 30%
Cape Coral	> 0 to 1%	1% to 5%	1% to 5%	10% to 15%
Cape Haze	> 0 to 1%	> 0 to 1%	1% to 5%	1% to 5%
Carrabelle	> 0 to 1%	> 0 to 1%	0	0
Cedar Key	1% to 5%	> 0 to 1%	15% to 20%	75% to 80%
Celebration	0	0	25% to 30%	35% to 40%
Century[233]	5% to 10%	5% to 10%	5% to 10%	15% to 20%

[233] Updated data for Century.

APPENDIX C: PERCENTAGE OF CLEC ACCESS LINES BY EXCHANGE

Exchange	% of Residential Access Lines CLEC Providers (2003)	% of Residential Access Lines CLEC Providers (2004)	% of Business Access Lines CLEC Providers (2003)	% of Business Access Lines CLEC Providers (2004)
Chattahoochee	> 0 to 1%	> 0 to 1%	0	0
Cherry Lake	1% to 5%	10% to 15%	0	75% to 80%
Chiefland	1% to 5%	1% to 5%	25% to 30%	30% to 35%
Chipley	15% to 20%	5% to 10%	35% to 40%	35% to 40%
Citra	> 0 to 1%	1% to 5%	0	0
Clearwater	> 0 to 1%	> 0 to 1%	30% to 35%	35% to 40%
Clermont	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Clewiston	1% to 5%	5% to 10%	1% to 5%	1% to 5%
Cocoa	5% to 10%	5% to 10%	35% to 40%	25% to 30%
Cocoa Beach	1% to 5%	5% to 10%	20% to 25%	50% to 55%
Coral Springs	15% to 20%	35% to 40%	30% to 35%	50% to 55%
Cottondale	5% to 10%	5% to 10%	5% to 10%	5% to 10%
Crawfordville	1% to 5%	1% to 5%	1% to 5%	30% to 35%
Crescent City	> 0 to 1%	1% to 5%	0	0
Crestview	1% to 5%	1% to 5%	1% to 5%	5% to 10%
Cross City	1% to 5%	1% to 5%	10% to 15%	10% to 15%
Crystal River	1% to 5%	1% to 5%	5% to 10%	5% to 10%
Dade City	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Daytona Beach	5% to 10%	10% to 15%	40% to 45%	35% to 40%
DeBary	10% to 15%	10% to 15%	15% to 20%	20% to 25%
Deerfield Beach	15% to 20%	15% to 20%	35% to 40%	35% to 40%
DeFuniak Springs	5% to 10%	5% to 10%	1% to 5%	1% to 5%
Deland	10% to 15%	10% to 15%	20% to 25%	15% to 20%
DeLeon Springs	10% to 15%	5% to 10%	25% to 30%	20% to 25%
Delray Beach	10% to 15%	10% to 15%	30% to 35%	35% to 40%
Destin	1% to 5%	1% to 5%	20% to 25%	30% to 35%
Dowling Park	> 0 to 1%	> 0 to 1%	0	0
Dunnellon	1% to 5%	1% to 5%	10% to 15%	15% to 20%
East Orange	1% to 5%	1% to 5%	10% to 15%	25% to 30%
East Point	> 0 to 1%	> 0 to 1%	0	0
Eau Gallie	1% to 5%	5% to 10%	15% to 20%	15% to 20%
Englewood	> 0 to 1%	> 0 to 1%	5% to 10%	5% to 10%
Eustis	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Everglades	> 0 to 1%	> 0 to 1%	> 0 to 1%	> 0 to 1%
Fernadina Beach	10% to 15%	5% to 10%	35% to 40%	20% to 25%
Flagler Beach	5% to 10%	5% to 10%	30% to 35%	30% to 35%
Florahome	> 0 to 1%	> 0 to 1%	0	1% to 5%
Florida Sheriffs' Boys Ranch	1% to 5%	1% to 5%	0	0
Forest	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Freeport	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Frostproof	1% to 5%	1% to 5%	1% to 5%	1% to 5%

APPENDIX C: PERCENTAGE OF CLEC ACCESS LINES BY EXCHANGE

Exchange	% of Residential Access Lines CLEC Providers (2003)	% of Residential Access Lines CLEC Providers (2004)	% of Business Access Lines CLEC Providers (2003)	% of Business Access Lines CLEC Providers (2004)
Ft. Lauderdale	20% to 25%	20% to 25%	35% to 40%	35% to 40%
Ft Meade	1% to 5%	1% to 5%	> 0 to 1%	1% to 5%
Ft Myers	1% to 5%	25% to 30%	25% to 30%	25% to 30%
Ft. Myers Beach	> 0 to 1%	> 0 to 1%	5% to 10%	15% to 20%
Ft Pierce	10% to 15%	5% to 10%	15% to 20%	15% to 20%
Ft. Walton Beach	1% to 5%	1% to 5%	10% to 15%	20% to 25%
Ft. White	1% to 5%	> 0 to 1%	0	0
Gainesville	10% to 15%	5% to 10%	20% to 25%	15% to 20%
Geneva	1% to 5%	0	15% to 20%	0
Glendale	1% to 5%	1% to 5%	0	0
Graceville	1% to 5%	5% to 10%	1% to 5%	10% to 15%
Grand Ridge	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Green Cove Springs	5% to 10%	5% to 10%	20% to 25%	20% to 25%
Greensboro	20% to 25%	1% to 5%	1% to 5%	0
Greenville	5% to 10%	1% to 5%	1% to 5%	1% to 5%
Greenwood	5% to 10%	5% to 10%	0	1% to 5%
Gretna	> 0 to 1%	5% to 10%	0	0
Groveland	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Gulf Breeze	5% to 10%	5% to 10%	25% to 30%	30% to 35%
Haines City	1% to 5%	1% to 5%	5% to 10%	10% to 15%
Hastings	> 0 to 1%	1% to 5%	0	0
Havana	1% to 5%	1% to 5%	5% to 10%	10% to 15%
Hawthorne	1% to 5%	1% to 5%	5% to 10%	10% to 15%
High Springs	> 0 to 1%	> 0 to 1%	0	0
Hilliard	> 0 to 1%	1% to 5%	0	0
Hobe Sound	5% to 10%	5% to 10%	15% to 20%	25% to 30%
Holley-Navarre	5% to 10%	5% to 10%	10% to 15%	20% to 25%
Hollywood	20% to 25%	20% to 25%	35% to 40%	35% to 40%
Homestead	15% to 20%	15% to 20%	10% to 15%	10% to 15%
Homosassa	1% to 5%	1% to 5%	1% to 5%	10% to 15%
Hosford	> 0 to 1%	0	0	0
Howey-in-the-Hills	> 0 to 1%	1% to 5%	1% to 5%	1% to 5%
Hudson	> 0 to 1%	> 0 to 1%	15% to 20%	20% to 25%
Immokalee	5% to 10%	10% to 15%	1% to 5%	1% to 5%
Indian Lake	> 0 to 1%	> 0 to 1%	1% to 5%	1% to 5%
Indiantown	0	0	0	0
Interlachen	> 0 to 1%	1% to 5%	0	0
Inverness	1% to 5%	1% to 5%	1% to 5%	10% to 15%
Jacksonville	15% to 20%	15% to 20%	40% to 45%	35% to 40%
Jacksonville Beach	10% to 15%	5% to 10%	35% to 40%	25% to 30%
Jasper	1% to 5%	1% to 5%	0	0

APPENDIX C: PERCENTAGE OF CLEC ACCESS LINES BY EXCHANGE

Exchange	% of Residential Access Lines CLEC Providers (2003)	% of Residential Access Lines CLEC Providers (2004)	% of Business Access Lines CLEC Providers (2003)	% of Business Access Lines CLEC Providers (2004)
Jay	0	1% to 5%	1% to 5%	5% to 10%
Jennings	1% to 5%	1% to 5%	0	0
Jensen Beach	5% to 10%	5% to 10%	20% to 25%	20% to 25%
Julington	10% to 15%	1% to 5%	15% to 20%	25% to 30%
Jupiter	5% to 10%	5% to 10%	30% to 35%	30% to 35%
Keaton Beach	> 0 to 1%	> 0 to 1%	0	0
Kenansville	> 0 to 1%	> 0 to 1%	5% to 10%	5% to 10%
Keys	5% to 10%	5% to 10%	10% to 15%	15% to 20%
Keystone Heights	1% to 5%	1% to 5%	10% to 15%	15% to 20%
Kingsley Lake	> 0 to 1%	1% to 5%	30% to 35%	0
Kissimmee	1% to 5%	5% to 10%	25% to 30%	35% to 40%
La Belle	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Lady Lake	> 0 to 1%	> 0 to 1%	5% to 10%	5% to 10%
Lake Buena Vista	0	10% to 15%	10% to 15%	10% to 15%
Lake Butler	> 0 to 1%	1% to 5%	0	0
Lake City	1% to 5%	1% to 5%	15% to 20%	15% to 20%
Lake Placid	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Lake Wales	1% to 5%	1% to 5%	1% to 5%	5% to 10%
Lakeland	1% to 5%	1% to 5%	10% to 15%	15% to 20%
Laurel Hill	> 0 to 1%	0	0	0
Lawtey	5% to 10%	5% to 10%	1% to 5%	1% to 5%
Lee	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Leesburg	1% to 5%	1% to 5%	5% to 10%	5% to 10%
Lehigh Acres	1% to 5%	1% to 5%	1% to 5%	5% to 10%
Live Oak	1% to 5%	1% to 5%	0	> 0 to 1%
Luraville	> 0 to 1%	1% to 5%	0	0
Lynn Haven	5% to 10%	1% to 5%	5% to 10%	10% to 15%
Macclenny	10% to 15%	10% to 15%	10% to 15%	15% to 20%
Madison	5% to 10%	5% to 10%	1% to 5%	1% to 5%
Malone	5% to 10%	5% to 10%	0	0
Marco Island	> 0 to 1%	> 0 to 1%	1% to 5%	1% to 5%
Marianna	5% to 10%	5% to 10%	1% to 5%	1% to 5%
Maxville	5% to 10%	5% to 10%	15% to 20%	20% to 25%
Mayo	1% to 5%	1% to 5%	0	0
McIntosh	> 0 to 1%	1% to 5%	0	0
Melbourne	1% to 5%	5% to 10%	50% to 55%	40% to 45%
Melrose	> 0 to 1%	> 0 to 1%	0	0
Miami	15% to 20%	15% to 20%	30% to 35%	30% to 35%
Micanopy	1% to 5%	0	1% to 5%	0
Middleburg	5% to 10%	5% to 10%	10% to 15%	35% to 40%
Milton	1% to 5%	1% to 5%	10% to 15%	10% to 15%

APPENDIX C: PERCENTAGE OF CLEC ACCESS LINES BY EXCHANGE

Exchange	% of Residential Access Lines CLEC Providers (2003)	% of Residential Access Lines CLEC Providers (2004)	% of Business Access Lines CLEC Providers (2003)	% of Business Access Lines CLEC Providers (2004)
Molino	0	0	0	0
Monticello	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Montverde	1% to 5%	1% to 5%	5% to 10%	30% to 35%
Moore Haven	1% to 5%	5% to 10%	> 0 to 1%	1% to 5%
Mount Dora	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Mulberry	1% to 5%	1% to 5%	5% to 10%	5% to 10%
Munson	1% to 5%	0	1% to 5%	0
Myakka	> 0 to 1%	> 0 to 1%	> 0 to 1%	5% to 10%
Naples	> 0 to 1%	1% to 5%	5% to 10%	5% to 10%
New Port Richey	> 0 to 1%	> 0 to 1%	10% to 15%	30% to 35%
New Smyrna Beach	15% to 20%	20% to 25%	25% to 30%	25% to 30%
Newberry	1% to 5%	1% to 5%	15% to 20%	30% to 35%
North Cape Coral	> 0 to 1%	0	5% to 10%	5% to 10%
North Dade	20% to 25%	20% to 25%	35% to 40%	45% to 50%
North Ft Myers	1% to 5%	1% to 5%	1% to 5%	5% to 10%
North Naples	> 0 to 1%	> 0 to 1%	5% to 10%	10% to 15%
North Port	> 0 to 1%	> 0 to 1%	1% to 5%	5% to 10%
Oak Hill	5% to 10%	5% to 10%	20% to 25%	20% to 25%
Ocala	1% to 5%	1% to 5%	20% to 25%	15% to 20%
Ocklawaha	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Okeechobee	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Old Town	1% to 5%	1% to 5%	5% to 10%	10% to 15%
Orange City	1% to 5%	1% to 5%	5% to 10%	10% to 15%
Orange Park	15% to 20%	10% to 15%	25% to 30%	30% to 35%
Orange Springs	> 0 to 1%	> 0 to 1%	0	0
Orlando	10% to 15%	15% to 20%	45% to 50%	40% to 45%
Oviedo	5% to 10%	5% to 10%	25% to 30%	30% to 35%
Pace	5% to 10%	5% to 10%	15% to 20%	20% to 25%
Pahokee	25% to 30%	30% to 35%	30% to 35%	40% to 45%
Palatka	5% to 10%	5% to 10%	20% to 25%	15% to 20%
Palm Coast	5% to 10%	5% to 10%	30% to 35%	15% to 20%
Palmetto	> 0 to 1%	> 0 to 1%	10% to 15%	15% to 20%
Panacea	1% to 5%	1% to 5%	> 0 to 1%	1% to 5%
Panama City	35% to 40%	35% to 40%	30% to 35%	30% to 35%
Panama City Beach	5% to 10%	5% to 10%	10% to 15%	15% to 20%
Paxton	0	> 0 to 1%	0	0
Pensacola	10% to 15%	10% to 15%	35% to 40%	35% to 40%
Perrine	15% to 20%	15% to 20%	30% to 35%	30% to 35%
Perry	> 0 to 1%	> 0 to 1%	0	0
Pierson	1% to 5%	1% to 5%	10% to 15%	15% to 20%
Pine Island	> 0 to 1%	> 0 to 1%	> 0 to 1%	1% to 5%

APPENDIX C: PERCENTAGE OF CLEC ACCESS LINES BY EXCHANGE

Exchange	% of Residential Access Lines CLEC Providers (2003)	% of Residential Access Lines CLEC Providers (2004)	% of Business Access Lines CLEC Providers (2003)	% of Business Access Lines CLEC Providers (2004)
Plant City	1% to 5%	1% to 5%	5% to 10%	15% to 20%
Polk City	1% to 5%	1% to 5%	1% to 5%	5% to 10%
Pomona Park	1% to 5%	1% to 5%	5% to 10%	15% to 20%
Pompano Beach	15% to 20%	1% to 5%	40% to 45%	35% to 40%
Ponce de Leon	1% to 5%	1% to 5%	10% to 15%	10% to 15%
Ponte Vedra Beach	5% to 10%	5% to 10%	20% to 25%	20% to 25%
Port Charlotte	> 0 to 1%	> 0 to 1%	5% to 10%	15% to 20%
Port St Joe	> 0 to 1%	> 0 to 1%	0	0
Port St. Lucie	5% to 10%	5% to 10%	20% to 25%	15% to 20%
Punta Gorda	> 0 to 1%	> 0 to 1%	5% to 10%	10% to 15%
Quincy	> 0 to 1%	1% to 5%	0	0
Raiford	> 0 to 1%	> 0 to 1%	0	0
Reedy Creek	5% to 10%	> 0 to 1%	30% to 35%	30% to 35%
Reynolds Hill	1% to 5%	0	0	0
Salt Springs	1% to 5%	1% to 5%	> 0 to 1%	> 0 to 1%
San Antonio	> 0 to 1%	> 0 to 1%	1% to 5%	1% to 5%
Sanderson	10% to 15%	10% to 15%	1% to 5%	1% to 5%
Sanford	10% to 15%	15% to 20%	25% to 30%	40% to 45%
Sanibel-Captiva Island	> 0 to 1%	> 0 to 1%	1% to 5%	5% to 10%
Santa Rosa Beach	1% to 5%	1% to 5%	10% to 15%	10% to 15%
Sarasota	> 0 to 1%	1% to 5%	15% to 20%	20% to 25%
Seagrove Beach	5% to 10%	5% to 10%	5% to 10%	5% to 10%
Sebastian	5% to 10%	5% to 10%	10% to 15%	15% to 20%
Sebring	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Shalimar	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Silver Springs Shores	1% to 5%	1% to 5%	5% to 10%	5% to 10%
Sneads	1% to 5%	1% to 5%	> 0 to 1%	> 0 to 1%
Sopchoppy	1% to 5%	1% to 5%	0	> 0 to 1%
Spring Lake	> 0 to 1%	1% to 5%	1% to 5%	5% to 10%
St. Augustine	5% to 10%	5% to 10%	25% to 30%	30% to 35%
St. Cloud	1% to 5%	1% to 5%	1% to 5%	15% to 20%
St. Johns	1% to 5%	0	35% to 40%	25% to 30%
St. Marks	1% to 5%	1% to 5%	1% to 5%	1% to 5%
St. Petersburg	1% to 5%	1% to 5%	15% to 20%	20% to 25%
Starke	1% to 5%	5% to 10%	5% to 10%	10% to 15%
Stuart	5% to 10%	10% to 15%	25% to 30%	25% to 30%
Sunny Hills	1% to 5%	1% to 5%	1% to 5%	5% to 10%
Tallahassee	1% to 5%	1% to 5%	15% to 20%	15% to 20%
Tampa	1% to 5%	1% to 5%	35% to 40%	30% to 35%
Tarpon Springs	> 0 to 1%	> 0 to 1%	10% to 15%	20% to 25%
Tavares	1% to 5%	1% to 5%	1% to 5%	1% to 5%

APPENDIX C: PERCENTAGE OF CLEC ACCESS LINES BY EXCHANGE

Exchange	% of Residential Access Lines		% of Business Access Lines	
	CLEC Providers		CLEC Providers	
	(2003)	(2004)	(2003)	(2004)
The Beaches	> 0 to 1%	0	0	0
Titusville	1% to 5%	5% to 10%	15% to 20%	20% to 25%
Trenton	1% to 5%	1% to 5%	10% to 15%	10% to 15%
Trilacoochee	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Tyndall AFB	0	0	0	0
Umatilla	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Valparaiso	1% to 5%	1% to 5%	10% to 15%	10% to 15%
Venice	> 0 to 1%	> 0 to 1%	10% to 15%	15% to 20%
Vernon	1% to 5%	1% to 5%	15% to 20%	50% to 55%
Vero Beach	5% to 10%	5% to 10%	15% to 20%	20% to 25%
Waldo	> 0 to 1%	> 0 to 1%	0	0
Walnut Hill	0	0	0	0
Wauchula	1% to 5%	1% to 5%	1% to 5%	1% to 5%
Weekiwachee Springs	5% to 10%	5% to 10%	20% to 25%	20% to 25%
Weirsdale	0	0	0	0
Welaka	1% to 5%	1% to 5%	10% to 15%	20% to 25%
Wellborn	> 0 to 1%	1% to 5%	0	0
West Kissimmee	1% to 5%	1% to 5%	40% to 45%	50% to 55%
West Palm Beach	10% to 15%	10% to 15%	30% to 35%	30% to 35%
Westville	1% to 5%	1% to 5%	0	0
Wewahitchka	> 0 to 1%	> 0 to 1%	1% to 5%	0
White Springs	1% to 5%	1% to 5%	0	0
Wildwood	1% to 5%	1% to 5%	5% to 10%	10% to 15%
Williston	1% to 5%	5% to 10%	5% to 10%	5% to 10%
Windermere	1% to 5%	5% to 10%	5% to 10%	5% to 10%
Winter Garden	1% to 5%	1% to 5%	5% to 10%	10% to 15%
Winter Haven	1% to 5%	1% to 5%	15% to 20%	30% to 35%
Winter Park	1% to 5%	1% to 5%	20% to 25%	30% to 35%
Yankeetown	1% to 5%	1% to 5%	15% to 20%	20% to 25%
Youngstown-Fountain	1% to 5%	1% to 5%	5% to 10%	60% to 65%
Yulee	1% to 5%	1% to 5%	10% to 15%	20% to 25%
Zephyr Hills	> 0 to 1%	> 0 to 1%	1% to 5%	5% to 10%
Zolfo Springs	1% to 5%	1% to 5%	1% to 5%	1% to 5%

APPENDIX D: SUMMARY OF COMPLAINTS FILED BY CLECS						
CLEC	**ILEC**	**Date Opened**	**Docket No. or CATS No.**	**Description of Complaint**	**Date Closed**	**Resolution**
Access Integrated Networks	BellSouth	05/30/03	535975T	Problems with lines not working properly. BellSouth reportedly trying to get customers to switch back to them.	07/02/03	Problems resolved. Delays caused by both companies.
Access Integrated Networks	BellSouth	06/25/03	540841T	Customer wants to move DSL (BellSouth) to its Fax line.	08/21/03	Line was moved. Miscommunications with the customer and its contractor.
Allegiance Telecom of Florida, Inc. and XO Florida, Inc. (Joint CLECs)	BellSouth & Verizon	05/21/04	040489-TP	Emergency Complaint of Joint CLECs seeking an order to require BellSouth and Verizon to continue to honor existing interconnection obligations	Pending	Pending
AT&T	BellSouth	11/12/03	031046-TP	Petition and Complaint of AT&T against BellSouth for alleged anti-competitive pricing of long distance service	07/23/04	Order No. PSC-04-0718-FOF-TP, issued on July 23, 2004 grants AT&T's request for voluntary withdrawal of Petition.
Auglink Commun.	BellSouth	03/04/04	586790T	Problem with newly installed line	03/30/04	Problem with voice mail service
DIECA Comm.Inc. (Covad)	BellSouth	09/26/03	030945-TP	Complaint of DIECA Communi-cations, Inc. against BellSouth for breach of the parties' interconnection agreement	01/20/04	Covad filed a voluntary notice of dismissal on January 13, 2004.

APPENDIX D: SUMMARY OF COMPLAINTS FILED BY CLECS

CLEC	ILEC	Date Opened	Docket No. or CATS No.	Description of Complaint	Date Closed	Resolution
DSL Telecom	BellSouth	01/26/04	580160T	Incorrect billing by BellSouth	02/11/04	DSL Telecom is hiring an internal audit company to review its billing records.
DSL Telecom	BellSouth	04/06/04	592145T	Condo Association signed a CLEC Assumption, however BellSouth is preventing it from happening.	05/28/04	BellSouth has not received any order and is not preventing any assumption.
EXCEL	BellSouth	03/16/04	587603T	Excel customer was out of service for over 1 week.	04/07/04	Service has been restored.
EZ Talk	BellSouth	10/07/03	561436T	Billing problem with BellSouth-EZ	12/08/03	Customer withdrew the complaint.
FDN	BellSouth	08/18/03	030829-TP	Complaint by FDN for resolution of certain billing disputes, and enforcement of unbundled network element orders and interconnection agreements	Pending	Pending
FDN	BellSouth	07/25/03	546773T	Charged a disconnect fee for changing from BellSouth to FDN.	08/12/03	FDN is crediting the customer for the termination charge.
FDN	BellSouth	11/17/03	568766T	Problem porting numbers back from Florida Digital Network	12/10/03	Three customers have been ported, 1 chose to remain with FDN and two others were cancelled by BellSouth due to no clarification by DSLI.
Florida Multimedia	BellSouth	08/13/03	550500-T	Service Connection Difficulties	08/13/03	BellSouth escalated the service order in question.

APPENDIX D: SUMMARY OF COMPLAINTS FILED BY CLECS

CLEC	ILEC	Date Opened	Docket No. or CATS No.	Description of Complaint	Date Closed	Resolution
Florida Phone Services	BellSouth	01/27/04	580707T	BellSouth requested additional deposit for increased usage.	02/12/04	FPS should pay an additional $30,000 deposit in order to honor contract.
FTS	BellSouth	10/23/03	564496T	BellSouth failed to provide service to its customer in a timely manner.	01/14/04	Service required new construction.
IDS Long Distance/ AT&T	BellSouth	10/16/03	557284T & 552585T	Customer's 6 lines has been out of service since 8/18/03.	01/12/04	Service has been restored. BellSouth to reimbursement company for vendor expenses as problem was with BellSouth.
IDS Telecom	BellSouth	12/23/03	031125-TP	Complaint of IDS Telecom LLC against BellSouth for alleged overbilling and discontinuance of service, and Petition for an emergency order restoring service	Pending	Pending
IDS Telecom	BellSouth	05/21/04	040488-TP	Complaint of BellSouth against IDS Telecom LLC to enforce deposit requirements of interconnection agreement	Pending	Pending
IDS Telecom	BellSouth	09/02/03	551589T	Repair problems with an IDS customer	09/18/03	Customer's service has been restored using a spare cable pair.
IDS Telecom	BellSouth	10/09/03	561736T	Trying to port to IDS. BellSouth has a freeze on the line.	12/03/03	BellSouth lifted the local freeze as requested by customer. All numbers are now working.

APPENDIX D: SUMMARY OF COMPLAINTS FILED BY CLECS

CLEC	ILEC	Date Opened	Docket No. or CATS No.	Description of Complaint	Date Closed	Resolution
IDS Telecom	BellSouth	11/7/03	567409-T	Threatened termination of service for non-payment.	12/16/03	Close-out letter to complainant that complex billing matters should be evaluated in a formal proceeding.
IDS Telecom	BellSouth	10/13/03	561895T	Problems regarding the provisioning of customer's fax line for DSL.	01/20/04	Non-regulated service and FPSC could not get the repair charge waived. Problem, however, was caused by IDS/United.
IDS Telecom	BellSouth	03/03/04	586528T	Customer trying to obtain DSL service.	03/11/04	BellSouth incorrectly identified the line as not qualifying for DSL. This has been corrected.
KMC Telecom	BellSouth	02/03/04	581789T	9-1-1 service not available on campus	03/29/04	Service is now working. Will investigate to determine the cause.
Sandhill Commun.	BellSouth	11/12/03	567910T	Billing problem with BellSouth	01/09/04	Response received, problems resolved.
STS	BellSouth	04/02/04	591695T	STS unable to use the BellSouth's LCSC automated system to remove call waiting.	04/21/04	STS advised to use the process outlined in agreement with BellSouth for resolving billing problems.
STS Telecom	BellSouth	10/01/03	560189T	Company is incorrectly listed, also dropped from some directories by BellSouth.	10/16/03	Problem has been resolved
STS Telecom	BellSouth	10/01/03	560300T	BellSouth caused delays in changing LD Company.	10/17/03	Customer successfully changed LD Company
STS Telecom	BellSouth	10/14/03	562697T	Out of Service	11/07/03	Service disconnected by BellSouth in error. It has been restored.

APPENDIX D: SUMMARY OF COMPLAINTS FILED BY CLECS

CLEC	ILEC	Date Opened	Docket No. or CATS No.	Description of Complaint	Date Closed	Resolution
STS Telecom	BellSouth	09/11/03	556202T	BellSouth disconnecting STS customers.	01/05/04	Accidental disconnection. Restored by BellSouth.
STS Telecom	BellSouth	09/17/03	557520T	Calls dropping off, BellSouth charging for premise visits if no trouble found.	01/22/04	Primary line moved from fiber to copper, no further problems. Problem caused by BellSouth.
STS Telecom	BellSouth	10/16/03	563066T	BellSouth removed freeze on customer's line without customer's approval.	02/06/04	STS & BellSouth are working out the notification problems.
Supra	BellSouth	06/13/03	538533T	Problem with DSL being disconnected due to switch	07/08/03	DSL is non-regulated service and Commission has no DSL rules.
Supra	BellSouth	05/23/03	534992T	Dangerous pole in yard that needs replacing	07/15/03	Pole has been removed.
USA Telephone	BellSouth	06/26/03	540974T	No dial tone. Unfair practice by BellSouth & billing problems.	08/07/03	BellSouth will issue credits of $120.
Vartec	BellSouth	07/03/03	542618T	Customer requested line to be moved. Contractor cut the line when move was not made.	08/06/03	Problem caused by Vartec. Credit of $37.88 will be issued.
CEMEX	Sprint	03/04/04	586724T	Customer of CEMEX out of service	04/05/04	Mr. Johnson has withdrawn the complaint.
FTS	Sprint	08/14/03	542444T	Can receive but cannot make calls.	11/10/03	Customer's service is now working with Sprint. LOA received to verify transfer of service.
Hosting Network	Sprint	07/03/03	542642T	Porting to Sprint-Hosting Network won't release the line.	07/08/03	Service has been ported. Customer had a freeze on the line.

APPENDIX D: SUMMARY OF COMPLAINTS FILED BY CLECS						
CLEC	**ILEC**	**Date Opened**	**Docket No. or CATS No.**	**Description of Complaint**	**Date Closed**	**Resolution**
Allegiance	Verizon	09/30/03	559974T	Customer trying to relocate to a new building. Problem with cables.	10/30/03	Customer has service with Verizon
CAT Comm.	Verizon	02/10/04	577918T	LD service is blocked.	04/05/04	Service has been installed.
Ganaco, Inc.	Verizon	08/8/03	549894-T	Billing problems with a specific Verizon product	09/16/03	Verizon issued the appropriate credits, and states that work on a mechanical fix is underway.
ITC^Delta-Com Comm.	Verizon	12/19/03	031116-TP	Complaint of ITC^ DeltaCom against Verizon for alleged violations of the Telecommunica-tions Act of 1996	2/10/04	ITC^Delta-Com Communications, Inc. filed a notice of voluntary dismissal on January 22, 2004.
TCG South Florida	Verizon	07/24/03	030677-TP	Petition and complaint by Verizon regarding customer transfer charges imposed by TCG South Florida	09/17/03	Verizon withdrew its Petition via letter dated September 12, 2003.
Xspedius Commun/ Espire	Verizon	08/29/03	550851T	Remote Call Forwarding problem as well as billing problems	10/16/03	In civil litigation

APPENDIX E: LIST OF CERTIFICATED CLECS AS OF 05/31/04

1 Com, Inc. d/b/a 1 Com South, Inc.
1-800-RECONEX, Inc. d/b/a USTEL
360networks (USA) inc.
A.R.C. Networks, Inc. d/b/a InfoHighway
AAA Reconnect, Inc.
AboveNet Communications, Inc.
Acceris Communications Corp. of Florida
Access Communications, LLC.
Access Integrated Networks, Inc.
Access Point, Inc.
AccuTel of Texas, Inc.
ACN Communication Services, Inc.
Actel Wireless, Inc.
Adelphia Telecommunications of Florida, Inc.
Advanced Tel, Inc. d/b/a EATEL
Advantage Group of Florida Communications, L.L.C.
Affordable Phone Services, Inc. d/b/a High Tech Communications
Airface Communications Inc.
AirTIME Technologies, Inc.
ALEC, Inc.
Allegiance Telecom of Florida, Inc.
ALLTEL Communications, Inc.
Alpha Fiber Inc.
Alpha Telecom, LLC
Alternative Access Telephone Communications Corp. d/b/a AA Tele-Com
Alternative Phone, Inc.
Alternative Telecommunication Services, Inc. d/b/a Second Chance Phone
Alticomm, Inc.
AMAFLA Telecom, Inc.
American Fiber Network, Inc.
American Fiber Systems, Inc.
American Phone Services Corp.
America's Wireless Choice, Inc.
Americatel Corporation
AmeriMex Communications Corp.
Andre Trajean Fidel d/b/a Andrex Telecom
ANEW Broadband, Inc.
Annox, Inc.
Armour E611 Incorporated
Arrow Communications, Inc. d/b/a ACI
Asset Channels-Telecom, Inc.
AT&T Communications of the Southern States, LLC d/b/a AT&T

APPENDIX E: LIST OF CERTIFICATED CLECS AS OF 05/31/04

Atlantic Telecommunication Systems, Inc. d/b/a ATS
Atlantic.Net Broadband, Inc. d/b/a Dolfo.Net
Atlas Communications, Ltd.
ATN, Inc. d/b/a AMTEL NETWORK, INC.
Auglink Communications, Inc.
Available Telecom Services, Inc.
Azul Tel, Inc.
Backbone Communications Inc.
BAK Communications, LLC
Baldwin County Internet/DSSI Service, L.L.C.
Basic Phone, Inc.
BCN Telecom, Inc.
Beauty Town, Inc. d/b/a Anns Communication
Bellerud Communications, LLC
BellSouth Long Distance, Inc.
BellSouth Telecommunications, Inc.
Best Value Telecom, Inc.
Birch Telecom of the South, Inc. d/b/a Birch Telecom and d/b/a Birch
Bright House Networks Information Services (Florida), LLC
Broadband Communities of Florida, Inc.
Broadview Networks, Inc.
BT Communications Sales LLC
Budget Phone, Inc.
BudgeTel Systems, Inc.
BullsEye Telecom, Inc.
Burno, Inc. d/b/a Citywide-Tel
Business Communications, Inc.
Business Telecom, Inc. d/b/a BTI
Buy-Tel Communications, Inc.
BW Consulting, L.L.C.
C2C Fiber of Florida, Inc.
Calpoint (Florida), LLC
Camarato Distributing, Inc. d/b/a Nex-Phon
Campus Communications Group, Inc.
CariLink International, Inc.
CAT Communications International, Inc.
Cbeyond Communications, LLC
Centennial Florida Switch Corp.
CI2, Inc.
Ciera Network Systems, Inc.
Cinergy Communications Company
City of Daytona Beach
City of Gainesville, a municipal corporation d/b/a GRUCom

APPENDIX E: LIST OF CERTIFICATED CLECS AS OF 05/31/04

City of Lakeland
City of Ocala
City of Quincy d/b/a netquincy d/b/a netquincy.com d/b/a www.netquincy.com
City of Tallahassee
Cleartel Telecommunications, Inc. d/b/a Now Communications, also d/b/a VeraNet Solutions
CM Tel (USA) LLC
Coastal Telephone Connections, Inc. d/b/a Coastal Connections
Cogent Communications of Florida LHC, Inc.
Colmena Corp. of Delaware
Columbia Telecommunications, Inc. d/b/a axessa
Comcast Business Communications, Inc.
Comcast Phone of Florida, LLC d/b/a Comcast Digital Phone
Comm South Companies, Inc. d/b/a Florida Comm South
Communications Xchange, LLC
Computer Network Technology Corporation
Comtech21, LLC
Conextel, Inc.
Coral Telecom, Inc. d/b/a TruComm Southeast
Cordia Communications Corp.
Covista, Inc.
Cox Florida Telcom, L.P. d/b/a Cox Communications
Credit Loans, Inc. d/b/a Lone Star State Telephone Co.
CTC Communications Corp.
Cypress Communications Operating Company, Inc.
David A. Chesson and Ted J. Moss d/b/a Phone-Out/Phone-On
Deland Actel, Inc.
Delta Phones, Inc.
DialEZ Inc.
DialTek, LLC d/b/a DTK Telecommunications, LLC
Dialtone Telecom, LLC
DIECA Communications, Inc. d/b/a Covad Communications Company
Direct Telephone Company, Inc.
Direct2Internet Corp.
Dominion Telecom, Inc.
Double Link Communications, Inc.
DPI-Teleconnect, L.L.C.
DSL Internet Corporation d/b/a DSLi
DSL Telecom, Inc.
DSLnet Communications, LLC
D-Tel, Inc.
DukeNet Communications, LLC
DV2, Inc.
E.Com Technologies, LLC d/b/a Firstmile Technologies, LLC

APPENDIX E: LIST OF CERTIFICATED CLECS AS OF 05/31/04

Eagle Communications, Inc. d/b/a Eagle Telco, Inc.
Eagle Telecommunications, Inc.
Easy Telephone Services Company
ElectroNet Intermedia Consulting, Inc.
Electronic Technical Services (E.T.S.)
eMeritus Communications, Inc.
Enhanced Communications Network, Inc. d/b/a Asian American Association
EO Telecom of Florida, LLC
EPICUS, Inc. d/b/a EPICUS
Ernest Communications, Inc.
Esodus Communications, Inc. d/b/a Excelink Communications d/b/a Instatone
EveryCall Communications, Inc.
Excel Telecommunications, Inc.
Express Phone Service, Inc.
EZ Talk Communications, L.L.C.
Fair Financial LLC d/b/a Midstate Telecommunications
Fast Phones, Inc. of Alabama
Fiber Media, LLC
FLATEL, Inc. d/b/a Florida Telephone Company d/b/a Oscatel d/b/a Telephone USA
Florida City-Link Communications, Inc.
Florida Digital Network, Inc. d/b/a FDN Communications
Florida Multi-Media Services, Inc. d/b/a Florida Multi Media
Florida Municipal Power Agency
Florida Phone Service, Inc.
Florida Phone Systems, Inc.
Florida Public Telecommunications Association, Inc.
Florida Telephone Services, LLC
Focal Communications Corporation of Florida
Fort Pierce Utilities Authority d/b/a GigaBand Communications
Foxtel, Inc.
FPL FiberNet, LLC
France Telecom Corporate Solutions L.L.C.
Frontier Communications of America, Inc.
Ganoco, Inc. d/b/a American Dial Tone
Georgia Public Web, Inc.
Georgia Telephone Services, Inc.
Global Connection, Inc of America
Global Crossing Local Services, Inc.
Global Crossing Telemanagement, Inc.
Global Dialtone, Inc. d/b/a Atlantic Phone
Global Metro Networks Florida, LLC
Global NAPS, Inc.
Global Response Corporation

APPENDIX E: LIST OF CERTIFICATED CLECS AS OF 05/31/04

Globalcom Inc. d/b/a GCI Globalcom Inc.
Globaltron Communications Corporation
Globcom, Inc.
GoBeam Services, Inc.
Grande Communications Networks, Inc.
Granite Telecommunications, LLC
GTC Telecom, Corp. d/b/a Curbside Communications
Gulf Coast Telecom, Inc.
Harbor Communications, LLC
Hayes E-Government Resources, Inc.
Home Town Telephone, LLC
Hotline, Inc. d/b/a Hotline Telephone Service, Inc.
ICG Telecom Group, Inc.
IDS Telcom LLC
IDT America, Corp. d/b/a IDT
I-Link Communications, Inc.
Image Access Communications, Inc. d/b/a NewPhone
Intellicall Operator Services, Inc. d/b/a ILD
Intelligence Network Online, Inc.
Intelogistics Corp.
Interactive Services Network, Inc. d/b/a ISN Communications
InterCept Communications Technologies, Inc.
Interlink Telephony, Inc.
Intermedia Communications, Inc.
International Exchange Communications, Inc. d/b/a IE Com
International Telcom, Ltd.
International Telnet, Inc.
Intrado Communications Inc.
ITC^DeltaCom Communications, Inc. d/b/a ITC^DeltaCom d/b/a Grapevine
ITS Telecommunications Systems, Inc.
Jax Telecom Inc.
Kenarl Inc. d/b/a Lake Wellington Professional Centre
Kernan Associates, Ltd. d/b/a St. Johns Estates
King Communications & Services, Inc.
KingTel, Inc.
Kissimmee Utility Authority
KMC Data LLC
KMC Telecom III LLC
KMC Telecom V, Inc.
Knology of Florida, Inc.
Laser Telecom, LLC
LecStar Telecom, Inc.
Level 3 Communications, LLC

APPENDIX E: LIST OF CERTIFICATED CLECS AS OF 05/31/04

LightWave Communications, LLC
Lightyear Communications, Inc.
Lionhart of Miami, Inc. d/b/a Astral Communications
Litestream Technologies, LLC
Local Line America, Inc.
Local Telecom Systems, Inc.
Looking Glass Networks, Inc.
LPGA International Communications, LLC
Madison River Communications, LLC
Max-Tel Communications, Inc. d/b/a Florida's Max-Tel Communications, Inc.
McGraw Communications, Inc.
MCI WorldCom Communications, Inc.
MCI WorldCom Network Services, Inc.
MCImetro Access Transmission Services LLC
McLeodUSA Telecommunications Services, Inc.
Melbourne Venture Group, LLC d/b/a SwiftTel
Mercury Long Distance, Inc.
MET Communications, Inc.
Metric Systems Corporation
Metro Teleconnect Companies, Inc.
Metropolitan Fiber Systems of Florida, Inc.
Metropolitan Telecommunications of Florida, Inc. d/b/a MetTel
Microsun Telecommunications, Inc.
Midwestern Telecommunications, Incorporated
Momentum Telecom, Inc.
Movie, Television & Graphics Corp. d/b/a M.T.G.
Mpower Communications Corp.
Myatel Corporation
MY-TEL INC.
National Telecom & Broadband Services, LLC
Navigator Telecommunications, LLC
Net One International, Inc.
Network International Solutions, Inc.
Network Multi-Family Security Corporation d/b/a Priority Link
Network Operator Services, Inc.
Network PTS, Inc.
Network Telephone Corporation
NetworkIP, L.L.C.
New Access Communications LLC and d/b/a INCOMNET
New Edge Network, Inc. d/b/a New Edge Networks
NewSouth Communications Corp.
Nigerian-American Investment Corporation d/b/a NAIC Telecommunications
nii Communications, Ltd.

APPENDIX E: LIST OF CERTIFICATED CLECS AS OF 05/31/04

North American Telecommunications Corporation
North American Telecommunications Corporation d/b/a Southeast Telephone Company
North County Communications Corporation
NOS Communications, Inc. d/b/a International Plus d/b/a O11 Communications d/b/a The Internet Business Association d/b/a I Vantage Network Solutions
Novus Communications, Inc.
NOW Communications, Inc.
NTERA, Inc.
NuStar Communications Corp.
NuVox Communications, Inc.
O1 Communications of Florida, Inc.
O1 Communications of Florida, LLC
Ocius Communications, Inc.
OCMC, Inc. d/b/a One Call Communications, Inc., OPTICOM, 1-800-MAX-SAVE, Advanttel, RegionTel, LiveTel, and SuperTel
Oltronics, Inc.
One Call Communications, Inc. d/b/a Opticom, a Division of One Call Communications, Inc.
OneStar Long Distance, Inc.
OnFiber Carrier Services, Inc.
ONS-Telecom, LLC
Orlando Telephone Company
Oronoco Networks, Inc.
Pacific Centrex Services, Inc.
PaeTec Communications, Inc.
Palm Beach Community College
Phone 1 Smart LLC
Phone Club Corporation
Phone-Link, Inc.
Pilgrim Telephone, Inc.
PNG Telecommunications, Inc. d/b/a PowerNet Global Communications
Preferred Carrier Services, Inc. d/b/a Telefonos Para Todos and d/b/a Phones For All
Premier Telecom, Inc.
Premiere Network Services, Inc.
Primus Telecommunications, Inc.
ProfitLab, Inc.
Progress Telecom, LLC
Protocall Communications, Inc.
Public Telephone Network, Inc.
Quality Telephone Inc.
QuantumShift Communications, Inc.
Quiet River Communications, LLC
Qwest Communications Corporation
Qwest Interprise America, Inc.

APPENDIX E: LIST OF CERTIFICATED CLECS AS OF 05/31/04

Qwik.net ALEC, Inc.
RCN Telecom Services, Inc.
Rebound Enterprises, Inc. d/b/a REI Communications
Re-Connection Connection
Reliant Communications, Inc.
ReTel Communications, Inc.
RGT Utilities of Florida, Inc.
Rightlink USA, Inc.
Ring Connection, Inc.
Sago Broadband, LLC
Sail Telecom, Inc.
Saluda Networks Incorporated
Sandhills Telecommunications Group, Inc. d/b/a SanTel Communications
Saturn Telecommunication Services Inc. d/b/a STS
SBA Broadband Services, Inc.
SBC Telecom, Inc.
ServiSense.com, Inc.
Seven Bridges Communications, L.L.C.
Shands Teaching Hospital and Clinics, Inc.
Smart City Networks
Smart City Solutions, LLC
Smart Network Solutions Communications Corp
SNC Communications, LLC
Solution Telecom, Inc
Source One Communications, Inc. d/b/a Quick Connects
Southeastern Services, Inc.
Southern Light, LLC
Southern ReConnect, Inc.
Southern Telcom Network, Inc.
Southern Telecom, Inc. d/b/a Southern Telecom of America, Inc.
Southwestern Bell Communications Services Inc. d/b/a SBC Long Distance
Spectrotel, Inc.
Speedy Reconnect, Inc.
Sprint Communications Company Limited Partnership
Strategic Technologies, Inc.
STS Telecom, LLC
Suntel Metro, Inc.
Sun-Tel USA, Inc.
Super-Tel.Com, Inc.
Supra Telecommunications and Information Systems, Inc.
Symtelco, LLC
Synergy Networks, Inc.

APPENDIX E: LIST OF CERTIFICATED CLECS AS OF 05/31/04

T3 Communications, LLC d/b/a Tier 3 Communications d/b/a Naples Telephone and d/b/a Fort Myers Telephone
Talk America Inc.
Talk and Pay, Inc.
Talk Unlimited Now, Inc.
TalkingNets Holdings, LLC
Tallahassee Community College
Tallahassee Memorial Telephone Company
Tallahassee Telephone Exchange, Inc.
TCG South Florida
Tel West Communications, LLC
TelCove Investment, LLC
TelCove of Florida, Inc.
TelCove of Jacksonville, Inc.
Telecom Connection Corp.
TeleConex, Inc. d/b/a TeleConex
TELECUBA, INC.
Teledata Solutions, Inc. d/b/a TDSI, INC.
Telefyne Incorporated
Telepacket, Inc
Telepak Networks, Inc.
Telephone One Inc.
Telephone Systems of Georgia, Inc.
Teligent Services, Inc.
TelQuest Communications, Corp.
Telstar Communications, Inc. d/b/a Telstar Prepaid Services
Telsys, Inc.
Terra Telecommunications Corp.
THC Merger Corp. d/b/a THC Internet Solutions
The Boeing Company
The Gulas Group, L.L.C.
The Other Phone Company, Inc. d/b/a Access One Communications
The Phone Connection, Inc.
The Sunshine State Telephone Company, L.L.P.
The Ultimate Connection, L.C. d/b/a DayStar Communications
Think 12 Corporation d/b/a Hello Depot
Tiburon Telecom, Inc.
Time Warner Telecom of Florida, L.P.
T-Netix, Inc.
TotalCom America Corporation
Touch 1 Communications, Inc.
Trans National Communications International, Inc.
Transparent Technology Services Corporation d/b/a North Palm Beach Telephone Company

APPENDIX E: LIST OF CERTIFICATED CLECS AS OF 05/31/04

Tristar Communications Corp.
U.S. TelePacific Corp. d/b/a TelePacific Communications
Unicom Communications, LLC
United Communications HUB, Inc.
Universal Access, Inc. d/b/a UAI of Florida, Inc.
Universal Beepers Express, Inc. d/b/a Universal Wireless d/b/a Universal Telephone d/b/a Ameri Phone d/b/a Unitel
Universal Telecom, Inc.
University Club Communications, LLC
US LEC of Florida Inc.
US South Communications, Inc.
US Telesis, Inc.
USA Telecom, Inc.
USA Telephone Inc. d/b/a CHOICE ONE Telecom
Utilities Commission, New Smyrna Beach d/b/a Sparks Communications
Utility Board of the City of Key West d/b/a Keys Energy Services
VarTec Telecom, Inc. d/b/a VarTec Telecom, Inc. and Clear Choice Communications
VBNet, Incorporated
Verizon Avenue Corp. d/b/a Verizon Avenue
Verizon Florida Inc.
Verizon Select Services Inc.
VGM International, Inc.
VIVO-FLA, LLC
Volo Communications of Florida, Inc. d/b/a Volo Communications Group of Florida, Inc.
Vortex Broadband Communications, Inc.
Vox2 Voice, L.C.
Vycera Communications, Inc.
Wholesale Carrier Services, Inc.
Wilted Local Network, LLC
Winstar Communications, LLC
Wireless One Network Management, L.P.
WS Telecom, Inc. d/b/a eXpeTel Communications
XO Florida, Inc.
Xspedius Management Co. of Jacksonville, LLC
Xspedius Management Co. Switched Services, LLC d/b/a Xspedius Communications
Yipes Enterprise Services, Inc.
Zone Telecom, Inc.
Z-Tel Communications, Inc.

GLOSSARY

Access Line	A telephone line extending from the telecommunications company's central office to a point of demarcation, usually on the customer's premises. (See also - "Local Loop")
Broadband	A descriptive term for evolving digital technologies offering consumers a single switched facility offering integrated access to voice, high-speed data services, video-demand services, and interactive information delivery services. Broadband is also used to define an analog transmission technique for data or video that provides multiple channels.
Central Office	CO. A telephone company facility housing the switching system and signaling equipment that provides telephone service for customers in the immediate geographical area.
CLEC	Competitive Local Exchange Company. Any company certificated by the Florida Public Service Commission to provide local exchange telecommunications service in the State of Florida on or after July 1, 1995. Pursuant to Law, the term ALEC was changed to CLEC on May 23, 2003.
Circuit	A fully operative two-way communications path.
Collocation	In a collocation arrangement, a competitor leases space at an incumbent local exchange carrier's (ILEC's) premises for its equipment.
Exchange	A central office or group of central offices, together with the subscriber's stations and lines connected thereto, forming a local system which furnishes means of telephonic intercommunication without toll charges between subscribers within a specified area, usually a single city, town, or village.
InterLATA	Telecommunications services that originate and terminate in different local access and transport areas (LATAs).
Intermodal	The use of more than one form of carrier to transport telecommunication services from origination to termination.
Internet Protocol	Refers to all the standards that keep the Internet running. Describes software that tracks the Internet address of nodes, routes outgoing messages, and recognizes incoming messages.
IntraLATA	Telecommunications services that originate and terminate in the same Local Access and Transport Area.

LATA	Local Access and Transport Areas. Geographic regions which present the post-divestiture service areas of the 22 Bell operating companies (BOCs). All telephone service within a LATA is defined as exchange service, while all telephone service between LATAs is defined as interexchange service. LATAs are loosely based on standard metropolitan statistical areas (SMSAs).
LEC	Local Exchange Company or Carrier, Local exchange telecommunications company. Means any company certificated by the Commission to provide local exchange telecommunications service in this state on or before June 30, 1995.
Local Loop	A circuit connecting telephone equipment to a switching facility or distribution point. (See also - "Access Line")
MSO	Multiple System Operator. A company that operates more than one cable television system.
OSS	Operations Support System. Methods and procedures (mechanized or not) which directly support the daily operation of the telecommunications infrastructure. The average local exchange company has hundreds of OSSs, including automated systems supporting order negotiation, order processing, line assignment, line testing and billing.
Packet Switching	A data transmission method whereby a channel is occupied only for the duration of transmission of "packets" of data. The packet switch sends the different packets from different data sources along the best route available, in no particular order. At the other end, the packets are reassembled to form the original message which is then sent to the receiving computer. Because packets need not be sent in a particular order, and because they can go by any route as long as they reach their destination, packet switching networks can choose the most efficient route and send the most efficient number of packets down that route, before switching to another route to send more packets.
PBX	Private Branch eXchange. A small version of a telephone company's larger central switching office that is owned by the customer.
POTS	Plain Old Telephone Service. The basic service supplying single line telephones, telephone lines and access to the public switched network.
PSTN	Public Switched Telephone Network. The telephone network that provides switching and transmission facilities to the general public.
RBOC	Regional Bell Operating Company. Originally, one of seven regional holding companies which were created in 1984 as part of the breakup of

	AT&T. After mergers and acquisitions, there are now 4 regional holding companies: BellSouth, SBC Communications, Verizon and Qwest.
Resale	Buying local and/or long distance phone lines in quantity at wholesale rates then selling them to someone else.
Section 271	Section of the Telecommunications Act of 1996 specifying the standards that must be met by a regional Bell Operating Company prior to in-region, interLATA entry. The standard seeks to measure whether the barriers to competition that Congress sought to eliminate with the 1996 Act have in fact been fully eliminated and whether there are objective criteria to ensure that competitive local exchange carriers will continue to have nondiscriminatory access to the facilities and services they will need from the Bell Operating Company in order to enter and compete in the local exchange market.
Switch	A mechanical, electrical or electronic device which opens or closes circuits, completes or breaks an electrical path, or selects paths or circuits.
Switched Access	Telephone company provided exchange access services that offer switched interconnections between local telephone subscribers and long distance or other companies. Long distance companies use switched access for origination and termination of ordinary user-dialed calls. Switched access is the single largest cost item for the long distance industry.
Tariff	A statement by a communications company that sets forth the services offered by that company, and established customer rates, terms, and conditions under which regulated services are provided, and states general obligations of the company and customer. Tariffs are subject to review by regulatory agencies and must be followed by the common carrier to ensure nondiscrimination between customers.
UWB	A wireless technology that operates over a wide range of spectrum by transmitting very short, low-power pulses that can be used to distribute services such as telephone, cable, and computer networking throughout a building or home.
UNE	Unbundled Network Element. The Telecommunications Act of 1996 requires that the incumbent local exchange companies unbundle their network elements and make them available to the competitive local exchange companies on the basis of incremental cost. UNEs are defined as physical and functional elements of the network, e.g., Network Interface Devices, local loops and subloops, circuit-switching and switch ports, interoffice transmission facilities, signaling and call-related

	databases, OSSs, operator services and directory assistance, and packet or data switching. (Newton)
UNE-L	Unbundled Network Element - Loop.
UNE-P	Unbundled Network Element - Platform. When combined into a complete set in order to provide an end-to-end circuit, the UNEs constitute a UNE-P.
Universal Service	This term describes the financial support mechanisms that constitute a universal fund which helps to compensate telephone companies or other communication entities for providing access to telecommunications services at reasonable and affordable rates throughout the country, including rural, insular, high cost areas, and to public institutions.
VoIP	Voice over Internet Protocol. The technology used to transmit voice conversations over a data network using the Internet Protocol.
Wireline	A term used to describe the technology used by a company to provide telecommunications services; it is synonymous with "landline" or land based technology, which "refers to standard telephone and data communications systems that use in-ground and telephone pole cables in contrast to wireless cellular and satellite services." (Techweb.com)

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-16)
Unite Communications Systems

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-16

Unite Communications Systems @ http://www.uniteone.net/index.html.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 24
Company/ Alltel
Witness: David C. Blessing (DCB-16)
Date: 12-01-05

Unite Communications Corporation
Unified Communication Solutions

unite, u-nit' , v.t.
to join into one : to make to agree, feel as one, or act in concert.
v.i. to become one: to grow or act together.

Unite

Home | About Us | Contact Us | Job Openings | Customer Service | Customer Portal | Webmail | Site M

The Convenience of One. One Bill. One Call. Simply *One.*

/// NAVIGATION:

- Sign Up
- Service Availability
- Community News
- Photo Gallery

- Service Packages
- Telephone
- Digital Cable TV
- High Speed Internet

- Wide Area Networks
- Channel Lineup
- Unite FAQ

- Comm. Involvement
- Customer Center

Welcome to Unite's world of advanced communications, a world in which you'll go faster and farther than you ever dreamed possible!

Our Digital Cable Television, High Speed Internet Access, and cutting-edge Telephone Services deliver more choices, better quality, faster speeds, and impressive value!

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Google

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NEW!

Unite Photo Gallery - Check out the latest photos from the Platte City Community Center cook

Click here to view the Unite FAQ (Frequently Asked Questions)!

Check out Unite's great Long Distance prices!

ALSO:

See what some of our younger cookout-goers have to say about Unite!

Questions or comments? Send an e-mail to siteadmin@uniteone.net!

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Service Availability
Kearney
Platte City
Community News
Photo Gallery

Service Packages
Telephone
Digital Cable TV
High Speed Internet

Wide Area Networks
Channel Lineup
Unite FAQ

Unite Service Packages

Pick a pack and save!

Bronze Package		$
Local Telephone Service	● Keep your current phone number ● Includes metro calling plan	
Digital Cable TV	● 145+ channels ● Equipment for two (2) televisions ● iN DEMAND Pay-Per-View	
Silver Package		$
Local Telephone Service	● Three (3) phone features ● Keep your current phone number ● Includes metro calling plan	
Digital Cable TV	● 1 45+ channels ● Equipment for two (2) televisions ● Six (6) Encore movie channels ● iN DEMAND Pay-Per-View	
High Speed Internet	● Unite DSL ● Five (5) e-mail address ● Dedicated connection ● Always-on	
Gold Package		$1
Local Telephone Service	● Five (5) phone features ● Keep your current phone number ● Includes metro calling plan ● Caller ID on TV	
Digital Cable TV	● 145+ channels ● Equipment for three (3) televisions ● Six (6) Encore movie channels ● IN DEMAND Pay-Per-View	
One (1) Premium Movie Channel	● Choose from HBO, Cinemax, Starz!, or Showtime/T	
High Speed Internet	● Unite DSL Plus ● Five (5) e-mail address ● Dedicated connection ● Always-on	
Platinum Package		$1
Local Telephone Service	● Ten (10) phone features ● Keep your current phone number ● Includes metro calling plan ● Caller ID on TV	

Unite Communications Systems
Company Overview

Headquartered in the Kansas City metro area, Unite has have been providing customer-focused communications solutions since 1997. Unite currently provides "triple play" services of telephone, cable TV and high speed Internet to approximately 3,000 homes and businesses in Kearney and Platte City, Missouri, and private communications networks to school districts and other commercial and governmental organizations over a five-state Midwest region (Missouri, Kansas, Nebreska, Colorado, and Illinois).

Unite's triple play operations currently enjoy a market penetration of 70%+ for residential and business customers. Unite provides significant benefits to customers including better service, greater selection, and lower price.

Unite currently operates private communications networks in Kansas, Missouri, Nebraska, Colorado, and Illinois. These private networks typically involve providing connectivity between multiple facilities locations under long-term lease agreements (5-15 years). Unite has significant experience with federal E-Rate program guidelines. Unite works closely with customer representatives as projects progress to ensure that it meets all customer expectations regarding project cost, quality and timeliness. Unite has a proven history of successful completion of fiber optic construction projects:

Customer	Location	Year Completed
Pueblo County	Pueblo, CO	1999
Raytown School District	Raytown, MO	2001
Dodge City School District	Dodge City, KS	2001
Lincoln Public Schools	Lincoln, NE	2001
Liberty School District	Liberty, MO	2002
Freemont School District	Pueblo, CO	2002
Ameritas Insurance	Lincoln, NE	2002
TAG/TMI	Lincoln, NE	2003
Nebraska Detention Center	Lincoln, NE	2003
Lone Jack School District	Lone Jack, MO	2003
DeSoto School District	DeSoto, KS	2003
Dark Fiber Solutions	Lincoln, NE	2003
Park Hill School District	Parkville, MO	2004
Raymore-Peculiar School District	Raymore, MO	2004
Pueblo School District	Pueblo, CO	2005
Harrisonville School District	Harrisonville, MO	2005
Lexington School District	Lexington, NE	2005
Pfizer	Lincoln, NE	2005
Carrollton School District	Carrollton, MO	2005
Level 3/UNL	Lincoln, NE	2005
Sprint Chicago	Chicago, IL	2005

Unite is a sub-chapter S corporation, 100% owned by four principals who are active in day-to-day management of the company. The four principals collectively have over 75 years of communications and utility industry experience. Unite is cash flow and net income positive.

Print this page.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-17)
Utopia Net

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-17

Utopia Net website @ http://www.utopianet.org/.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 25
Company/ Alltel
Witness: David C. Blessing (DCB-17)
Date: 12/01/05

Why Was UTOPIA Formed?

Advanced telecommunications are becoming increasingly crucial in business and in improving our quality of life. UTOPIA was formed in response to at least three critical telecommunications needs going unmet by private industry:

1. **Redundant connections.** This is a critical issue for smaller rural communities outside the main service-area corridor in Utah. A few years ago, during a construction project, the primary communications line into Box Elder County was severed, leaving businesses as well as residents, with no telecommunications services. The incumbent provider, when asked repeatedly over the years for a redundant connection, has failed to deliver.
2. **Ubiquitous deployment.** Profitable parts of the state and profitable portions of select cities are currently serviced by some type of broadband connection; however, less profitable communities are ignored by incumbents because they don't provide a sufficient ROI. The resulting digital divide is of concern to the communities, but not to the incumbents.
3. **Competition and service.** Telecommunications infrastructure (copper lines going into homes and businesses) is owned by service provider monopolies. Pricing, programming choice, quality of service, and various business practices dependent on--and benefiting from--the privately owned infrastructure are not being driven by market competition. The absence of competition allows incumbent providers to ignore consumer complaints.

After several years of receiving no positive movement on these issues from private sector incumbents, various Utah municipalities formed a consortium to solve them on their own. The resulting organization, UTOPIA, is governed by an Interlocal Agreement, guided by a unique ideology with specific goals, and is motivated by a one-for-all and all-for-one spirit intent on addressing these problems for their communities.

UTOPIA was organized to address identified critical telecommunications needs. In seeking solutions to those needs, UTOPIA first defined an ideology and adopted specific goals. These ideologies and goals establish the criteria for selecting solutions from among the various technologies, business models, and operational strategies that could potentially address the stated needs:

- **Open Access/Multiple providers**. The solution must be open to, and support, multiple service providers and encourage competition for any and all services offered across the network. A system whose ownership, design, or operation precludes, or gives intrinsic advantage to, any individual provider is unacceptable.
- **Wholesale Services**. To avoid direct competition between the public system and private enterprise, the system must operate at the wholesale level only. All consumer products and services traversing the network are to be offered by private sector service providers in a competitive retail market.
- **Scalable**. Given the rapid evolution of technology and the continual growth of communities, the system must be nearly infinitely scalable. A solution meeting today's needs of speed and capacity is insufficient: it should be capable of meeting projected telecommunications needs for at least twenty years and more.
- **Carrier Class**. Current business requirements for reliable and secure transactions as well as the increasing flow of sensitive personal information across telecommunications lines require the physical components to perform with 99.999% reliability and an equal degree of end-to-end data security.
- **Standards-based**. Proprietary technology forces partnerships with vendors and suppliers. UTOPIA's design and construction must use established, non-proprietary standards that allow for competition in filling hardware needs.
- **Ubiquitous**. Providing services to fewer than all of a community's residents simply perpetuates existing inequities. The selected technology and business model must finally and permanently bridge the digital divide within communities.

These goals and ideals govern all decisions regarding UTOPIA's solutions to the telecommunications needs of its member communities.

Planning for Success

The founding members of UTOPIA devised a staged approach to meet their goals:

1. **Conduct a feasibility study.** UTOPIA hired consultants to determine:
   - which technology best meets the needs of the communities,
   - what business model is appropriate for a public system, and
   - whether the system can be financially self-sustaining

   Findings from the completed study were to be subjected to an independent thrid-party for vetting.

2. **Engage and finance the project.** Upon a favorable outcome to the study, interested member cities commit to proceeding with the project. Committing cities to ongoing participation allows UTOPIA to determine potential market revenues as well as total construction costs and allows UTOPIA to secure financing for the project.
3. **Examine practices.** Before borrowing the full amount of money required for a complete build out, UTOPIA will borrow sufficient to build a small sub-set of the network's first footprint to validate construction costs and to examine construction methodologies, service provisioning, customer support, and other operational issues.
4. **Build out the full network.** Upon successful examination of the policies and procedures established in the the sub-set buildout, the balance of the funding will be secured and committed cities will move ahead towards full deployment. Using a capital efficient approach to deployment, the network will grow as quickly as it is able to support itself.
5. **Operate and maintain the system.** UTOPIA will contract with third-party systems managers to ensure the ongoing viability and success of the system.

UTOPIA has completed phase one of this master plan and is approaching the end of phase two. Of the original 18 cities, 14 have committed to ongoing participation, and 11 of those have committed financial backing to speed the progress of the project in their communities.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-18)
Grant County

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-18

Grant County (Washington State) Public Utility District Zip fiber network website @ http://www.gcpud.org/zipp/zippnews.htm.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 26
Company/Alltel
Witness: David C. Blessing (DCB-18)
Date: 12-01-05

Zipp Fiber Network

Availability Map
Contact Zipp
Get Connected
Policies
Retail Service Providers

Anticipating the future technological needs of the utility, Grant County PUD began developing a fiber optic communication system in the 1980s that now links the hydroelectric projects, most substations, all local offices and the headquarters building. The fiber optic connection of Grant PUD's facilities created a "backbone" throughout the county, which has enough excess capacity to provide broadband access to the residents of the county while meeting the needs of Grant PUD.

After four years of deploying fiber optics to homes, businesses, schools and farms in Grant County , the Commission, our ratepayer-owners and service providers spent much of 2004 discussing the future of this program, called the Zipp Network. Grant PUD Commissioners and Management formed a fiber business plan advisory group for the Zipp Network in 2003 and 2004. This team of business people, farmers, educators and retail service providers worked diligently to review the system's financial needs and results and ultimately provided the Commission with their recommendation to "stand pat" in constructing the Zipp Network for at least one year.

The Zipp Network is discussed and debated publicly - that is one of the advantages of public power. In 2004, Grant PUD acted upon the advice of the business plan advisory group and significantly slowed construction of the Zipp Network, allowing time to take another look at the program and re-evaluate the build-out on an annual basis, if financially appropriate.

In 2005, Grant PUD will only expand service to homes and businesses located within "fiber ready" areas of the county.

Availability Map

Disclaimer:
This map is intended for general reference only. **Service within a highlig area is not guaranteed** . Boundaries shown are approximations. Contact y service provider to determ availability. A complete lis providers can be found by clicking **<here>**.

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(509) 754-0500 - Toll Free in WA State 1-800-422-3199

Get Connected

- **Check Fiber Availability**

  Contact a **Retail Service Provider** to determine if fiber is available in your neighborhood.

- **Select a Service Provider**

  Choose a **Retail Service Provider** that meets your needs for one or all of the available services, which include high-speed Internet, television & telephone.

- **Sign up for service by contacting your Service Provider**

  Once you have chosen your **Retail Service Provider** , you need to contact them to sign up for service. Your service provider will be able to keep you updated on the status of your fiber installation, which typically takes between 5 & 10 business days. Finally, your provider will follow up with you to ensure all your services are running smoothly.

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30 C Street SW, P.O. Box 878, Ephrata WA 98823
(509) 754-0500 • Toll Free in WA State 1-800-422-3199

heard that the people of Grant County want fiber optic service. The survey states that 60 percent of customers in areas where Zipp is not available are very or somewhat likely to sign up for service if it were built in their neighborhood. The survey also concluded that 61 percent want to see continued expansion of the fiber network.
more

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30 C Street SW, P.O. Box 878, Ephrata WA 98823
(509) 754-6632 - Toll Free in WA State 1-888-254-1899

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Safety Information

Grant County PUD is a consumer-owned utility. It was created in 1938 by a popular vote of the people of the county who had been struggling for 20 years to receive electricity. Grant County is a rural, predominantly agricultural region. The ability to maintain local control of power resources has allowed the county to grow and prosper. Low cost power provided by the Grant County PUD allows the county to be a leading player in the agricultural sector of Washington State and a driving force in regional and state economies.

PUD Manager Tim Culbertson

A 5-member Board of Commissioners governs the utility. The PUD owns and operates t two-dam Priest Rapids Project on the Columbia River in central Washington. Together, Priest Rapids and Wanapum make up one of the nation's largest hydropower developments, with the capacity to produce 2,000 megawatts of electricity – enough tc supply a city the size of Seattle.

Grant County PUD shares this affordable electric power with 12 Northwest utilities that serve millions of customers, creating economic benefits throughout the Northwest.

Through enlightened management practices, good stewardship and sensitivity to the multiple needs of others that share the region's resources, the Grant County PUD serv the present as well as future generations.

Learn more about the Grant County PUD Hydro System (video)

Download QuickTime

Priest Rapids Dam

Wanapum Dam

Potholes PEC

Quincy Chute

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Retail Service Providers

- Availability Map
- Contact Zipp
- Get Connected
- Policies
- Retail Service Providers

Internet Service Providers

Accima
(509) 766-0434

Bigdam.net
(509) 633-0493

Donobi Light Pipe
(509) 764-8025

genext.net
(509) 884-7791

NCW-Online Internet Service
(509) 754-4442

OAC
(509) 888-0350

(509) 932-5088

AVERION
(877) 518-1005

Computer Professionals
(509) 927-3397

HOMENET northwest
(509) 754-4010

(509) 764-4636

Pipeline1.com
(509) 771-0070

(509) 765-7700

(509) 765-7773

Basin Networking
(509) 750-0672

clynline
1-800-572-5678

Grant County Power, Net
(509) 766-1345

LOCALTEL
(509) 766-9027

MWinternet
(509) 764-0309

(509) 764-5007

Television Service Providers

Donobi Light Pipe
(509) 764-8025

Telephone Service Providers

LOCALTEL
(509) 766-9027

MWinternet
(509) 764-0309

Security Service Providers

genext.net
(509) 884-7791

(509) 765-7700

Wireless Service Providers

Accima
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Basin Networking
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(509) 765-7773

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Zipp Network

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Zipp News

01/24/05
Grant County PUD's Zipp Network wholesale television package to change

EPHRATA , WA . – Grant County Public Utility District's Zipp fiber optic network will cease to receive television channels from the Turner Network on Monday, February 7, 2005.

"Grant PUD has received correspondence from Turner Network Sales, Inc. regarding transport of Turner Network television channels across the Zipp Network," said Larry Jones, Grant PUD director of telecommunications. "By law, Grant PUD is not able to agree to several of the stipulations required by Turner Networks in order to retain our ability to transport their television channels to retail service providers." more

12/29/04
Grant PUD Update on the Zipp Network

EPHRATA, WA – Grant PUD staff continues to develop and review options for the future of the Zipp fiber optic network in preparation for Commissioner examination near the end of January.

After the Commission workshop regarding the fiber program in late November, Commissioners directed staff to develop multiple alternatives for proceeding. These alternatives include options to stand-pat in new construction as done in 2004 and maintain the current customer base, build under a slow construction schedule and build under a fast construction schedule. Each option will be detailed in the business plan document. more

11/22/04
Zipp Network Survey Results Received - Grant County Wants Fiber EPHRATA, WA - As part of their weekly meeting on Monday, November 22, Grant County PUD Commissioners reviewed the results of the recent Zipp Network market survey and

09/16/04
Grant PUD Commissioners withdraw Rural Utility Service Loan, Alternate Financing Sought for Zipp Network

08/11/04
Zipp Network – Intranet, Internet, Service Provider Page Update Resul of Fiber Business Plan Group

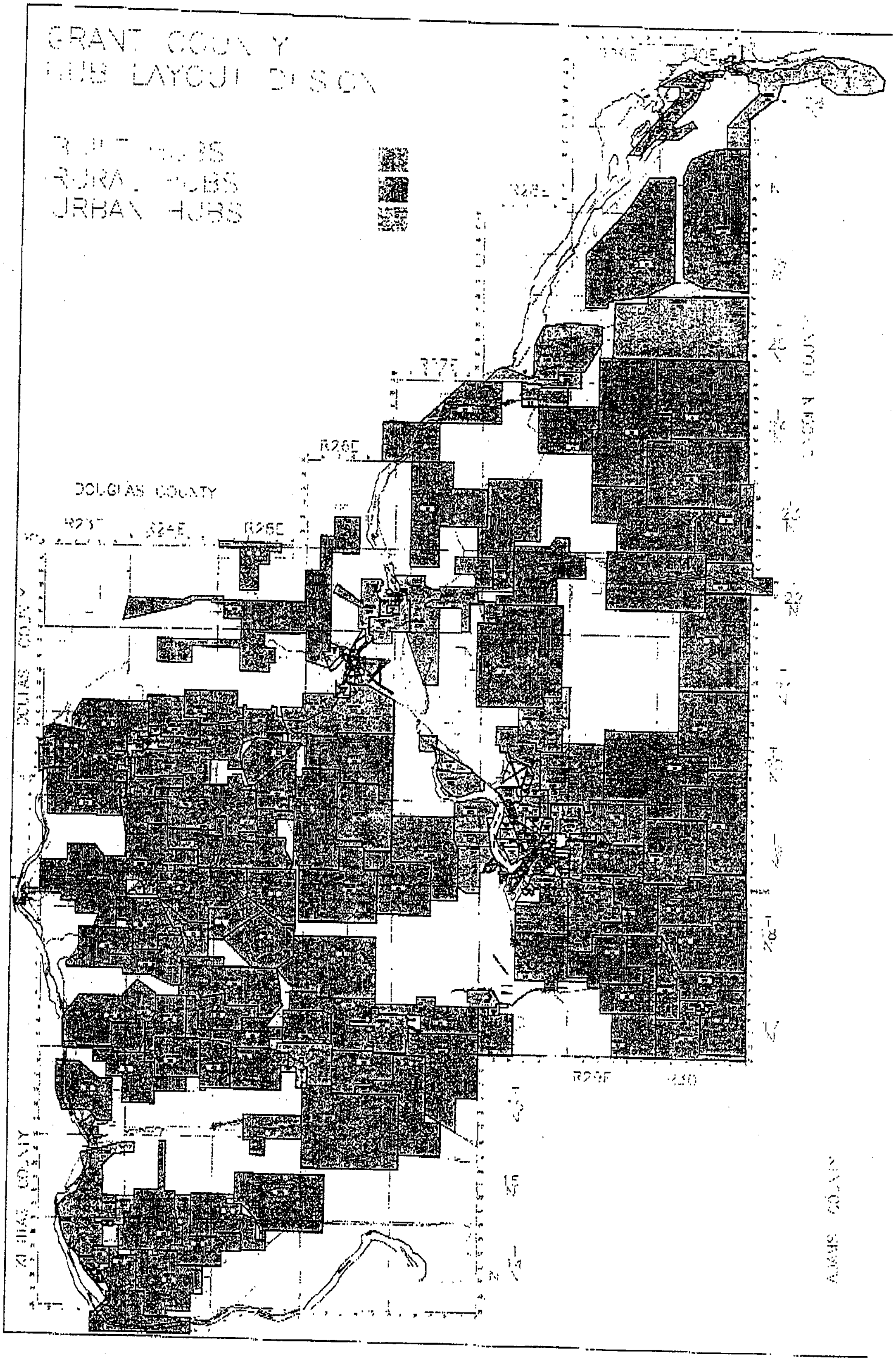
07/06/04
Grant PUD Commissioners Approve New Fiber Rate Schedule

6/30/04
Community effort to update Zipp Business Plan

Another Benefit of Fiber: Telemedici

Reaping Rewards with Cisco Metro Ethernet

Grant County PUD Internet Utopia



GRANT COUNTY
HUB LAYOUT DESIGN
DOUGLAS COUNTY
R27E
R26E
R24E
R29E

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-19)
Chelan County

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-19

Chelan County (Washington State) Public Utility District fiber network website @ https://fiber.chelanpud.org/euedu/about_Us/PUD_Fiber/Presentations/,

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 27
Company/ Alltel
Witness: David C. Blessing (DCB-19)
Date: 12-01-05

CHELAN COUNTY
FIBER OPTICS

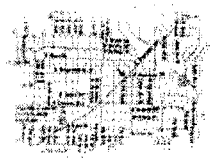
HOME CONTACT

Get Connected | Fiber Advantage | Community + | News | About Us

Home :

GOT FIBER?

CHECK HERE!



There are a thousand reasons to live in North Central Washington, and for most of us, quality of life is at the top of the list. Today you can live outside the urban metropolis and still stay connected with Chelan County PUD's fiber-optics network.

Fiber optics... faster than dial-up, faster than DSL, faster than cable. Contact an authorized service provider today to get connected, and bring the world to your door.

TRIPLE SERVICES OVER FIBER

Chelan County PUD is building a fiber-optic network where you'll have access to the fastest connection anywhere in the world including:

- Internet and e-mail access
- Telephone service
- Digital-quality television and video on demand (available in 2005)

All these services are available through 14 local service providers where you can expect a high level of customer service at competitive prices.

"NEW! Space now available for rent -
Chelan County PUD Co-location Center in the Confluence Technology Center"

1 **AVAILABILITY**

2 **SERVICE PROVIDERS**

3 **CONNECTION REQUEST**

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-20)
Wyoming 2005 Telecom Report

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-20

Wyoming PSC 2005 Annual Telecom Report.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 28
Company/ Alltel
Witness: David C. Blessing (DCB-20)
Date: 12-01-05

2005

ANNUAL

TELECOMMUNICATIONS

REPORT

prepared by the

Wyoming Public Service Commission
(023)
http://psc.state.wy.us
soxley@state.wy.us

pursuant to W. S. § 37-15-407 of the
Wyoming Telecommunications Act of 1995

Cheyenne, Wyoming 82002
January 10, 2005

Table of Contents

Foreword

This Report is prepared annually by the Wyoming Public Service Commission under the mandate of W.S. § 37-15-407 in the Wyoming Telecommunications Act of 1995, which states:

> "(a) The commission shall with the input and participation of the telecommunications industry and other relevant state departments, boards and agencies prepare and issue an annual report on the status of the telecommunications industry and Wyoming regulation thereof on January 10 of each year beginning in 1996. Such report shall include:
>
> "(i) A review of regulatory decisions and actions from the preceding year and a description of pending cases involving significant telecommunications companies or issues;
>
> "(ii) A description of the telecommunications industry or trends therein, including the number, type and size of companies offering telecommunications services, telecommunications technologies in place and under development, variations in the geographic availability of services and in process for services, and penetration levels of subscriber access to local exchange service in each exchange and trends related thereto;
>
> "(iii) The status of compliance by carriers and the commission with the requirements of this chapter;
>
> "(iv) The effects, and likely effects of Wyoming regulatory policies and practices, including those described in this title, on telecommunications companies, services and customers;
>
> "(v) Any recommendations for legislative change which are adopted by the commission and which the commission believes are in the interest of Wyoming telecommunications customers; and
>
> "(vi) Any other information or analysis which the commission is required to provide by this title or deems necessary to provide.
>
> "(b) The commission's report shall be filed with the legislature, the governor and the state telecommunications council."

Telecommunications on the Internet

The Commission's web site offers regularly updated information about telecommunications regulatory activities in Wyoming at:

http://psc.state.wy.us

It offers complete texts of orders, notices, tariffs, annual reports, official minutes and other information about telecommunications companies and the Commission, and it is searchable. We have included docket numbers and web addresses in this Report to assist you in finding more information on subjects of interest. We invite you to use it and to share your suggestions for improvement with our webmaster at dcrock@state.wy.us

Find more information about the Wyoming Universal Service Fund at:

http://psc.state.wy.us/wyusf.htm

Information about the Wyoming Office of Consumer Advocate is available at:

http://psc.state.wy.us/oca.htm

SECTION 1:
REGULATORY MATTERS

a. Some Telecommunications Terms Used in This Report

We hope that the following definitions of telecommunications industry terms and acronyms will be useful to you in reading this Report. If you have further questions, please contact the Public Service Commission at soxley@state.wy.us or by telephone at 307-777-5746.

"access" Access, as used in "access charge" and "switched access" means the ability of a customer to have access to the local telephone company's switch to make or to receive long distance calls. Long distance companies depend on access to complete calls made by their customers; and these companies pay on a per minute-of-use basis for this access.

"BOC" This federal Act acronym stands for Bell Operating Company and includes the companies formed during the breakup of AT&T in 1984 and their successors. Section 3(a)(2)(35) of the federal Act lists all of the BOCs. These companies are also known as RBOCs, or Regional Bell Operating Companies. Qwest, successor to U S WEST, is the only BOC providing service in Wyoming.

"central office" A central office is the installation containing the local telephone switch serving a community and the surrounding area (the "local exchange"). The central office switch connects customers to the local and long distance networks.

"CFR" The Code of Federal Regulations is the standard compilation of all federal agency regulations. References can be to either individual sections or Parts containing several sections on a single topic. Their numbering (e.g., 47 CFR) follows the numbering of titles in the United States Code.

"CLEC" A Competitive Local Exchange Carrier offering local exchange telecommunications services in Wyoming in competition with an established (incumbent) carrier. Wyoming CLECs are listed in Appendix B to this Report.

"CMRS" Commercial Mobile Radio Service, as defined by the Federal Communications Commission, is a type of wireless carrier holding an exclusive federally-issued license in a defined geographic area for a certain period of time. CMRS service providers can include PCS, cellular, Radio Common Carriers and others.

"competitive" Under W.S. § 37-15-202, the Legislature has deemed some telecommunications services "competitive" and the PSC may find other services competitive. Most competitive services are not subject to price regulation by the PSC. Local basic telephone services, switched access and long distance services, if provided by an established local exchange carrier, are not automatically considered "competitive." Most other services are "competitive," including local service provided by resellers, long distance services of long distance companies, and added features like call waiting and caller ID. As a general rule, if a customer has the choice of similar

services at similar prices from different providers, the service can be found competitive by the PSC under the Act.

"de-averaging" When a telecommunications company de-averages its rates, it breaks down its subscribers into rate categories recognizing the different costs of serving different customer groups. Subscribers all pay the same price if the company has averaged rates.

"embedded" An embedded cost of providing telephone service is an actual investment that has already been made. It shows up on the books of the company.

"equal access" This is the ability of a customer to choose any in-state and any interstate long distance carrier and to use that carrier to complete calls without having to dial any extra numbers. This is also called "1+" equal access.

"ETC" Under 47 U.S.C. §254(e) in the federal Act, only a telecommunications carrier designated as an Eligible Telecommunications Carrier can receive federal universal service support. Under 47 U.S.C. §214, an ETC must, in the area for which support is sought, offer all the services eligible for federal universal service support, either through its own facilities or a combination of its facilities and the resale of another carrier's services. It must advertise the price and availability of the services throughout the area. Designations of ETC status are made by state regulatory commissions. More than one carrier may be certified in a particular area, and Commission certifications must be made annually to the FCC.

"**explicit**" An explicit subsidy is one that a consumer can see on the telephone bill. An example is the credit against high cost basic service from the Wyoming Universal Service Fund.

"FCC" The Federal Communications Commission.

"federal Act" The federal Telecommunications Act of 1996, P.L. 104-104, generally consisting of amendments to the federal Communications Act of 1934 (47 U.S.C. 151, *et seq.*).

"hot cut" A hot cut is a process by which an incumbent local exchange carrier manually disconnects the customer's loop (which is hardwired to its local switch) and physically rewires it to the switch of its local competitor, while reassigning the customer's telephone number to the competitor's switch. Properly performed, a hot cut would not be noticed by the customer.

"ILEC" An Incumbent Local Exchange Carrier is an established, facilities-based telecommunication carrier offering local telecommunications services in Wyoming. Wyoming's 14 ILECs are listed in Appendix A to this Report.

"**implicit**" An implicit subsidy is one that cannot be identified on the customer's bill. An example would be a rate for a service which is lower because of revenues generated by the sale of other services above their costs.

"interconnection agreement" A contract between two telecommunications carriers which spells out the terms and conditions on which the carriers will connect and deal with each other

for the purpose of providing services to the public. Qwest's Wyoming SGAT is a form interconnection agreement which spells out Qwest's generally offered terms of interconnection with CLECs desiring to compete with Qwest in the provision of local exchange service. Section 1i of this Report contains a list of interconnection agreements which various companies have concluded with Qwest and Sprint/United.

"LNP" Local number portability allows customers switching service providers to retain their existing telephone numbers after the move, including wireline-to-wireline, wireline-to-wireless, wireless-to-wireline and wireless-to-wireless moves. Considered a key provision supporting a competitive market, federal law allows state regulatory commissions to grant waivers of existing federal LNP requirements on a showing of good cause. In the Wyoming Telecommunications Act of 1995, at W.S. § 37-15-404, *Protection of telecommunications consumers*, subsection (e)(v), the Commission was given authority to make rules on "Telephone number portability to the full extent technically feasible."

"NASUCA" The National Association of State Utility Consumer Advocates is a voluntary national association of 44 consumer advocates in 42 states, the District of Columbia and Barbados.

"OCA" The Office of Consumer Advocate was created by the Wyoming Legislature, effective March 6, 2003, as a "separate division within the public service commission." It is charged with representing "the interests of Wyoming citizens and all classes of utility customers in matters involving public utilities" but is not allowed to "advocate for or on behalf of any individual, organization or entity." As an independent entity, it may, among other things, appeal Commission decisions, negotiate proposed settlements in contested cases, participate in court proceedings as an *amicus curiae*. Read the entire group of statutes creating the OCA at: http://legisweb.state.wy.us/statutes/titles/title37/c02a04.htm
Find out more about the OCA on the Internet at: http://psc.state.wy.us/oca.htm

"PIDs" Performance Indicator Definitions quantify aspects of Qwest's performance under its QPAP to allow accurate and objective measurement of this performance in Qwest's dealing with CLECs and in opening its market fully and fairly to local service competition. Payments by Qwest under the QPAP are triggered by performance under the PIDs.

"POTS" Industry acronym for Plain Old Telephone Service, the basic level of telecommunications service once characterized by a single line, black, rotary dial telephone connected to the local central office. The companion acronym **"PANS"** denotes Pretty Amazing New Stuff, a catch-all acronym for more sophisticated technology and the services it offers.

"QPAP" Qwest's Wyoming Statement of Generally Available Terms, defined below, contains provisions for payments by Qwest when it fails to meet defined standards in interconnecting with local exchange service competitors. These payments are provided for in Exhibit K to the SGAT, the Qwest Performance Assurance Plan or QPAP. A Performance Assurance Plan is nominally "voluntary" but the FCC has not approved any Section 271 application that did not include such a plan.

"ROC" The Regional Oversight Committee is comprised of state regulators from the 14 states in which Qwest provides local telephone service. The Commission is a member. The ROC meets twice a year, sharing information on telecommunications regulatory issues concerning Qwest and undertaking regulatory projects of common interest. [See the ROC's web site at http://regionaloversightcommittee.org]

"Section 271" Section 271 of the federal Act and related provisions prohibit an RBOC from offering originating long distance telecommunications service across state and LATA (local access and transport area) boundaries unless the RBOC has demonstrated that it has fairly and fully opened its local exchange service markets [e.g., in Wyoming] to competition, including a showing that it meets the requirements of a 14-element competitive checklist under Section 271 of the federal Act. After lengthy Commission proceedings, Qwest received a favorable recommendation that it met the relevant criteria in December 2002. The FCC accepted this recommendation and Qwest started to offer this type of service early in 2003. [Docket No. 70000-TA-00-599]

"Section 503" This section of the Commission's Rules deals with required service quality reporting and record keeping by telecommunications service providers in Wyoming. You will note below that several service providers have asked for waivers of certain provisions of Section 503. The applying companies are not facilities-based carriers, and the service quality reporting requirements for which waivers are routinely sought only apply to facilities-based carriers. Read Section 503 on-line at: http://soswy.state.wy.us/RULES/4868.pdf

"SGAT" SGAT stands for Statement of Generally Available Terms, and it is described at Section 252(f) of the federal Act. It is a form contract under which competitors may interconnect with Qwest to provide local service in competition with Qwest in Wyoming (formally entitled *Statement of Generally Available Terms and Conditions for Interconnection, Unbundled Network Elements, Ancillary Services and Resale of Telecommunications Services*). The Wyoming SGAT has been examined and allowed to go into effect as part of the Commission's Section 271 proceedings. The Commission continues to monitor the functioning of the SGAT and participates in the regulatory group of states undertaking long term administration of the PIDs used to measure Qwest's performance under the SGAT. Qwest's Wyoming SGAT and its related exhibits can be viewed on line at:
http://www.qwest.com/about/policy/sgats/WY.html

"TELRIC" or "Total Element Long Run Incremental Cost" Section 252(d) of the federal Act generally describes a "just and reasonable" pricing standard for interconnection and network element charges which must be "based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element (whichever is applicable)." It must be "nondiscriminatory," and "may include a reasonable profit." The FCC articulated this as the forward looking TELRIC methodology, establishing TELRIC by rule in its *Local Competition Order*. It is used to ensure that prices are set at levels "that encourage efficient market entry." TELRIC was the wholesale pricing standard used in connection with Qwest's Section 271 proceeding. TELRIC forms the basis for the prices that Qwest charges to competitive providers for individual elements of its network, such as loop, switching and transport.

"TRO" or Triennial Review Order" In 2003, the FCC issued its *Report and Order on Remand and Further Notice of Proposed Rulemaking*, FCC 03-36, called the Triennial Review Order or TRO, in its Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability, being held in CC Dockets No. 01-338, 96-98, and 98-147. It is intended as a review and examination of the facts, on a state by state basis, bearing on the various duties of ILECs to unbundle their systems to accommodate competition. Find more information on the TRO below at Section 1k of this Report.

"TSLRIC" or "Total Service Long Run Incremental Cost" According to the Act at W.S. § 37-15-103(a)(xiii), this means ". . . the total forward-looking cost, using least cost technology, for a telecommunications service or basic network function that the telecommunications provider would incur if it were to initially offer such telecommunications service or basic network function; . . . ." Telecommunications companies which offer non-competitive services must price each of its services at least at a level that allows the service to recover its own total service long run incremental cost. This is intended to eliminate implicit subsidies and to encourage competitors to enter the market on a level playing field. It is a retail level standard.

"UNE" An unbundled network element. Section 251(c)(3) of the federal Act requires incumbent local exchange carriers like Qwest to provide nondiscriminatory access to network elements on an unbundled or individual basis to any telecommunications carrier requesting them for the provision of a telecommunications service. That Section states that "An incumbent local exchange carrier shall provide such unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service." Qwest's UNE prices for Wyoming are found at Exhibit A to Qwest's Wyoming SGAT. [See the Wyoming SGAT and its Exhibits at http://www.qwest.com/about/policy/sgats/WY.html]

"UNE-P" Unbundled network element-platform. It is a group of physical and functional elements (UNEs) of a facilities-based carrier's network which, when combined, provide a complete local service circuit or service "platform.".

"USAC" The Universal Service Administrative Company, set up as a non-profit corporation by the National Exchange Carrier Association, to administer federal universal service funding mechanisms.

"Wyoming Act" The Wyoming Telecommunications Act of 1995, Chapter 15 of Title 37 of the Wyoming Statutes, is the basic telecommunications regulatory law in Wyoming.

b. Chronology of Telecommunications Issues and Events: 2004

In this chronology, we have highlighted some events which may be of interest to a wider group of readers of this Report *by italicizing them.*

January 6, 2004

The Commission approved the application of Working Assets Funding Service, Inc., for a waiver of the service quality reporting requirements of Section 503 of the Commission's Rules. Docket No. 74062-TA-03-13

January 7, 2004

Wyoming Telecommunications Council meeting. See further details below in the Section 2 of this Report. Visit the Council's web site at: http://cio.state.wy.us/telecom/index.asp

January 8, 2004

The Commission approved the application of Primus Telecommunications for a pro forma transfer of control of the company from Primus Telecommunications Group, Inc., to Primus Telecommunications Holding, Inc. Docket No. 74137-TA-03-5

The Commission approved the application of Project Telephone Company to revise its Toll Restriction Tariff. Docket No. 70012-TT-03-21

Qwest Corporation's (Qwest) wireline interconnection agreement with VCI Company and an amendment were approved. Docket Nos. 70000-TK-03-941 and 70000-TK-03-942

January 13, 2004

The Commission approved the application of Qwest to enter into an unbundled network elements, ancillary services, and resale of telecommunications services interconnection agreement with CAT Communications International, Inc. Docket No. 70000-TK-03-945

January 15, 2004

The Commission approved an amendment to Qwest's interconnection agreement with Arch Wireless f/k/a Mobile Communications. Docket No. 70000-TK-03-946

January 27, 2004

The Commission approved an amendment to Qwest's interconnection agreement with DIECA Communications Inc. Docket Nos. 70000-TK-03-950 and 70071-TK-03-7

The Commission canceled the registration authority and tariffs of PT-1 Long Distance, Inc., to offer intrastate, interexchange telecommunications services because of its failure to comply with Wyoming law. Docket No. 74473-IT-03-3

The Commission approved the amendment of Qwest's interconnection agreement with Comm South Companies, Inc. Docket Nos. 70000-TK-03-947 and 70057-TK-03-6

The Commission issued a formal letter of instruction informing all applicable Wyoming telecommunications service providers that the Wyoming Division of Vocational Rehabilitation and the Wyoming Telecommunications Relay Service Advisory Committee decided that the Wyoming Relay per-line surcharge should remain at the level of 6¢ per month for calendar year 2004. Undocketed.

January 29, 2004

The Commission approved the application of Teleglobe America Inc., to implement internal corporate structure changes enabling a transfer of control of the company from Teleglobe Netherlands to ITXC Corp. Docket No. 74363-TA-04-7

February 4, 2004

The Commission held a public hearing on Chugwater Telephone's application to have its local exchange and switched access services found to be subject to competition under W.S. § 37-15-202(a) because of competition from wireless telecommunications service providers. Docket No. 70005-TA-03-19

February 12, 2004

The Commission approved Lightyear Communications' plan of reorganization and a series of related financial transactions. Docket No. 74067-TA-03-10

The Commission authorized Qwest to extend a previously approved Competitive Inquiry promotional offering through April 30, 2004. Docket No. 70000-TT-04-956

The Commission declined to take action on the application of VCI Company for designation as an Eligible Telecommunications Carrier. Docket No. 70104-TA-04-4

February 13, 2004

The Office of Consumer Advocate submitted to the FCC its *Reply Comments of the Wyoming Office of Consumer Advocate on Petition for Rulemaking to Eliminate Rate-of-Return Regulation of Incumbent Local Exchange Carriers* in Docket No. RM 10822 and CC Docket No. 96-45 regarding universal service. Western Wireless asked the FCC to eliminate rate of return regulation of ILECs, and the Office of Consumer Advocate commented on the need to examine universal service funding mechanisms to ensure their adequacy, especially in rural, high cost states such as Wyoming, but disagreed with Western Wireless' premise that rate of return regulation should be eliminated. Read the Reply Comments at Appendix H to this Report.

February 19, 2004

The Commission approved the request of Qwest and XO Network Services to enter into an interconnection agreement. Docket Nos. 70000-TK-04-952 and 70107-TK-04-3

The Commission authorized an Order granting the request of XO Network Services to withdraw its pending application in Docket No. 70107-TT-04-2 regarding changing a credit for interruptions; introducing a re-dispatch charge; and Plan C local exchange service rates (basic business lines, PBX trunks and operator assistance). Docket No. 70107-TT-04-5

For lack of jurisdiction under the Wyoming Telecommunications Act of 1995, the Commission dismissed the complaint of the Sheridan County Commission against Qwest regarding the omission of the communities of Banner and Story from the QwestDEX Northeastern Wyoming telephone directory. Docket No. 70000-TC-04-964

February 24, 2004

The Commission approved the application of Frontier Communications of America for a waiver of the Commission's Rules regarding held order and service interruption reports. Docket No. 74149-TA-04-14

February 26, 2004

The Commission approved the amended application of VCI Company for designation as an Eligible Telecommunications Carrier (ETC). Docket No. 70104-TA-04-4

March 1, 2004

Chairman Rob Hurless began his term of service as Chairman of the Commission.

March 2, 2004

Qwest and Houlton Enterprises were allowed to amend their existing interconnection agreement. Docket Nos. 70000-TK-04-955 and 70100-TK-04-4

The Commission allowed Z-Tel Communications to withdraw its previously filed application to remove tariff provisions relating to the Telephone Assistance Program. Docket No. 70084-TT-04-33

The United States Court of Appeals for the District of Columbia Circuit decided United States Telecom Association v. Federal Communications Commission and United States of America, Case No. 00-1012. The Court vacated the TRO in part, remanded it in part and stayed its decision for the longer of 60 days or until a petition for rehearing was denied. Among other actions, the Court vacated the FCC's delegation of impairment determinations to the states, which applies to mass market switching and certain dedicated transport elements, DS1, DS3, and dark fiber and the FCC's nationwide impairment determinations concerning these elements. It vacated the FCC's decision not to take into account availability of tariffed special access services when conducting the impairment analysis (and therefore vacated the decision that wireless carriers are impaired without unbundled access to ILEC dedicated transport). The court stated that "This deadline is appropriate in light of the Commission's failure, after eight

years, to develop lawful unbundling rules, and its apparent unwillingness to adhere to prior judicial rulings."

March 4, 2004

The Commission approved the application of Qwest to expand the Base Rate Area for its Casper exchange to include parts of two subdivision developments previously excluded. Docket No. 70000-TT-04-959

The Commission approved the application of Qwest and IDT America Corp., to enter into an interconnection agreement. Docket Nos. 70000-TK-03-951 and 70106-TK-03-2

The Commission authorized United Telephone Company of the West d/b/a Sprint (United Telephone) to enter into an interconnection agreement with dpiTeleconnect. Docket No. 70009-TK-04-198

March 11, 2004

The Commission approved the application of T-NETIX Telecommunications Services to transfer control of its parent corporation to TZ Holdings, Inc. Docket No. 74008-TA-04-12

The Commission granted a concurrent certificate of public convenience and necessity to Southwestern Bell Communications Services, Inc., to provide local exchange telecommunications services in those areas of Wyoming served by Qwest. Docket No. 70110-TA-04-1

The Commission approved the application of Comm South Companies, Inc., to implement its original access service tariff. Docket No. 70057-TT-04-8

The Commission approved the transfer of ownership and all of the outstanding capital stock of Motion Telecom to Wireless Channels. Docket No. 74600-TA-04-4

The Commission approved the application of Electric Lightwave, Inc., for a waiver of the Commission Rule relating to service quality reporting requirements. Docket No. 74236-TA-04-7

The Commission approved the application of Bell Atlantic Communications, Inc., on behalf of its Verizon companies, for a waiver of the Commission Rule relating to service quality reporting requirements. Docket Nos. 74440-TA-04-44, 74198-TA-04-54 and 74091-TA-04-201

March 18, 2004

The Commission allowed Qwest to amend its existing interconnection agreement with Z -Tel Communications to include terms, conditions and rates for UNE-P Line Splitting. Docket Nos. 70000-TK-04-953 and 70084-TK-04-32

The Commission approved an interconnection agreement between Qwest and Granite Telecommunications. Docket Nos. 70000-TK-04-962 and 70108-TK-04-2

March 19, 2004

Wyoming Telecommunications Council meeting. See further details below in the Section 2 of this Report. Visit the Council's web site at: http://cio.state.wy.us/telecom/index.asp

March 25, 2004

The Commission approved the request of Qwest for a two month extension of time in which to file its 2004 TSLRIC study inputs and to schedule a technical conference. The Commission also approved similar extensions of the TSLRIC related study filing and final action deadlines in Docket No. 70000-TA-04-1045. Docket No. 70000-TA-04-970

The Commission approved the application of Qwest to amend its existing interconnection agreement with 1-800 Reconex to include terms, conditions and rates for UNE-P Public Access Lines. Docket Nos. 70000-TK-04-963 and 70033-TK-04-16

Qwest was authorized to offer a Business Line Volume Purchasing Plan, effective April 5, 2004. Docket No. 70000-TT-04-969

The Commission approved the application of United Telephone to enter into an interconnection agreement with XO Network Services. Docket Nos. 70009-TK-04-196 and 70107-TK-04-4

March 30, 2004

The Commission gave the Wyoming Universal Service Fund manager additional time to May 10, 2004, to file the state-wide average local exchange telecommunications service rate and recommended assessment level for the fund's 2004-2005 fiscal year. (No other fund-related deadlines were affected by this action.) Undocketed

March 31, 2004

The Commission deliberated the application of Chugwater Telephone Company to have its telecommunications services deemed subject to effective competition under W.S. § 37-15-202. The Commission did not make a final decision and decided to take additional evidence in the case. Docket No. 70005-TA-03-19

April 1, 2004

The Commission authorized an Order granting the motion of Qwest to withdraw a revised Wyoming SGAT based on the March 2, 2004 United States Court of Appeals decision regarding the TRO. Docket No. 70000-TK-04-966

April 2, 2004

The Commission held public deliberations on the formal complaint of Contact Communications against Qwest Communications regarding Qwest's charges for physical collocation service in its Riverton and Lander wire centers. The Commission dismissed the complaint. Docket Nos. 70000-TC-03-881 and 70026-TC-03-12

April 8, 2004

The Commission approved Qwest's negotiated wireline interconnection agreement with Sprint Communications. Docket Nos. 70000-TK-04-957 and 70021-TK-04-21

April 13, 2004

The Commission authorized Qwest to offer enhancements to its current Competitive Response Program, effective May 3, 2004. Docket No. 70000-TT-04-976

WERCS Communications, Inc., was granted a concurrent certificate of public convenience and necessity to provide local exchange telecommunications services in those areas of Wyoming currently served by Qwest. Docket No. 70112-TA-04-1

ACN Communication Services, Inc., was granted a concurrent certificate of public convenience and necessity to provide local exchange telecommunications services in those areas of Wyoming currently served by Qwest. Docket No. 70113-TA-04-1

April 15, 2004

Clear World Communications Corporation applied for a waiver of W.S. § 37-15-412, which governs slamming and cramming by telecommunications service providers. The Commission dismissed the application. Docket No. 74376-TA-04-10

Qwest was authorized to amend its existing interconnection agreement with Sprint Communications Company, L.P. Docket Nos. 70000-TK-04-968 and 70021-TK-04-22

April 18-19, 2004

The Commissioners and members of its staff attended the ROC meeting in Denver, Colorado. Attendees met with representatives of the FCC and the other state regulatory commissions having jurisdiction over Qwest. Topics included the TRO, universal service support and emerging Voice over Internet Protocol (VoIP) technology.

April 20-21, 2004

Qwest held a technical workshop in Cheyenne on its 2004 TSLRIC inputs and models. Commission staff members and the Office of Consumer Advocate attended.

April 23, 2004

Wyoming Telecommunications Council meeting. See further details below in the Section 2 of this Report. Visit the Council's web site at: http://cio.state.wy.us/telecom/index.asp

April 27, 2004

Qwest's application for approval of modifications and updates to Exhibit B of its Wyoming SGAT was approved. Docket No. 70000-TA-04-965

April 29, 2004

The Commission conducted public deliberations on the formal complaint of Mrs. Joseph Rickie Walsh a/k/a Denise Kay Parrish against Qwest, dismissing the complaint because Qwest had addressed Walsh's issues. Docket No. 70000-TC-03-929

The Commission approved the applications by these companies for a waiver and modification of certain provisions of Section 503 of the Commission's Rules regarding service quality reporting requirements in Docket Nos.:

70027-TA-04-28 [MCIMetro Access Transmissions Services, LLC]
74006-TA-04-185 [MCI WorldCom Communications, Inc.]
72003-TA-04-120 [MCI WorldCom Network Services, Inc.]
74007-TA-04-30 [Teleconnect Long Distance Services & Systems, Inc.]
74213-TA-04-9 [Intermedia Communications, Inc.]
74183-TA-04-15 [TTI National, Inc.]

The Commission accepted compliance filings by Qwest in its TELRIC cost determination proceeding. Docket No. 70000-TA-01-700

Comtech 21 LLC, received a concurrent certificate of public convenience and necessity to provide local exchange telecommunication services in Wyoming. Docket No. 70111-TA-04-1

May 4, 2004

The Commission approved the amendment of Qwest's existing interconnection agreement with DIECA Communications, Inc., d/b/a Covad Communications Company. Docket Nos. 70000-TK-04-973 and 70071-TK-04-8

The Commission approved the application of Houlton Enterprises, Inc., d/b/a Guaranteed Phone Service, to immediately cancel its certificate of public convenience and necessity and cancel its Wyoming tariffs. Docket No. 70100-TA-04-5

May 11, 2004

The Commission approved the amendment of existing Qwest interconnection agreements to allow the ordering of DSL service with UNEs in Docket Nos.:
VarTec Telecom, Inc. 70000-TK-04-972 and 70092-TK-04-11
Excel Telecommunications, Inc. 70000-TK-04-974 and 70020-TK-04-15

The Commission suspended the assessment for the 2004-2005 fiscal year of the Wyoming Universal Service Fund because current fund balances were adjudged adequate to meet funding requirements for the fund's fiscal year. The Commission established the weighted state-wide average local exchange service rate at $24.36, and the 130% support threshold at $31.67. As a result of this action, qualifying customers receiving support from the fund will pay $3.75 per month less for basic local exchange service beginning on July 1, 2004. Docket No. 90072-XO-04-24

The Commission approved the application of Qwest to enter into a local number portability agreement with All West Wyoming, Inc. Docket Nos. 70000-TK-04-961 and 70050-TK-04-8

May 12, 2004

The Commission sent a letter to Senator McCain and Representative Barton urging support of federal legislation that would ensure a fairer and more targeted distribution of federal universal service support to rural states like Wyoming. Read a copy of this letter at Appendix G to this Report.

May 13, 2004

United Telephone was authorized to amend its existing CMRS interconnection agreement with Sprint PCS. Docket No.70009-TK-04-201

May 24, 2004

The Commission filed a brief as an Intervenor/Petitioner in Qwest Communications International, Inc., v. Federal Communications Commission and United States of America (No. 03-9637) with the United States Court of Appeals for the 10th Circuit, arguing on appeal for additional federal universal service funding support for Wyoming local exchange carriers and explaining how existing federal support for Wyoming local exchange carriers is inadequate under the federal Act. Undocketed.

The Commission dismissed CenturyTel of Wyoming's request for suspension of the FCC's requirement to implement local number portability under the federal Act, 47 U.S.C. § 251(f)(2).

CenturyTel requested dismissal on its representations that it complied with the requirement. Docket No. 70003-TA-03-85

The Commission granted requests by certain ILECs for 30-day suspensions of the FCC's requirement to implement local number portability under 47 U.S.C. § 251(f)(2). The Commission granted the suspensions to allow parties to these cases, including the Office of Consumer Advocate and Western Wireless, to try to resolve outstanding issues. Docket Nos.:
70001-TA-03-50 [Range Telephone]
70005-TA-03-20 [Chugwater Telephone]
70006-TA-03-63 [Silver Star Communications]
70007-TA-03-42 [Dubois Telephone]
70012-TA-03-22 [Project Telephone]
70013-TA-03-18 [All West Communications]
70015-TA-03-43 [RT Communications]
70016-TA-03-27 [Teton Telecom]

May 27, 2004

The Commission designated Qwest's local exchange telecommunications services provided in the Afton exchange as subject to effective competition under W.S. § 37-15-202. Docket No. 70000-TA-99-505

June 1, 2004

Kathleen A. "Cindy" Lewis began her term of service as Commissioner.

The Commission approved the application of Teligent, Inc., and Aspen Capital Partners, L.P., to transfer the controlling interest in Teligent to Aspen. Docket No. 74362-TA-04-11

Qwest was allowed to amend its interconnection agreement with XO Network Services to include provisions relating to the TRO ruling on the availability of certain UNEs, line sharing and dedicated transport. Docket Nos. 70000-TK-04-977 and 70107-TK-04-8

The Commission authorized the amendment of Qwest's interconnection agreement with Contact Communications to incorporate terms, rates and conditions relating to collocation available inventory. Docket Nos. 70000-TK-04-985 and 70026-TK-04-14

The Commission authorized the placement of twelve retail customer contracts between Qwest and certain business customers in the Commission's confidential contract files with no rate related treatment. Docket Nos. 70000-TK-04-980 and 70000-TK-04-981

June 16-26, 2004

Denise Parrish of the Office of Consumer Advocate participated in a telecommunications regulatory conference sponsored by the International Telecommunications Union in Banjul, capital of The Gambia, located in western Africa.

June 22, 2004

The Commission approved a Type 2 Wireless interconnection agreement between Qwest and Union Cellular. Docket Nos. 70000-TC-04-860, 70008-TC-04-40, 70000-TK-04-967 and 70008-TK-04-41

Qwest, Range Telephone Cooperative, RT Communications, Dubois Telephone Exchange, CenturyTel, Silver Star Communications and All West Communications were allowed to intervene in the application of Western Wireless for designation as an Eligible Telecommunications Carrier in the Cody and Powell wire centers. Docket No. 70042-TA-04-4

The Commission tabled consideration of Union Telephone Company's request for clarification with regard to the Order expanding its Eligible Telecommunications Carrier designation to include its wireless service area. Docket No. 70008-TA-03-38

The Commission approved an amendment to Qwest's existing interconnection agreement with Contact Communications. Docket No. 70000-TK-04-986 and 70026-TK-04-15

The Commission approved a Business Escalation Amendment to Qwest's existing interconnection agreement with MCIMetro Access Transmission Services, LLC. Docket No. 70000-TK-04-994 and 70027-TK-04-30

The Commission approved the applications of Qwest to amend its existing interconnection agreement with InTTec, Inc. Docket No. 70000-TK-04-987 and 70049-TK-04-5; 70000-TK-04-988 and 70049-TK-04-6

Qwest was authorized to amend its existing interconnection agreement with ICG Telecom Services to incorporate terms and conditions relating to the FCC's TRO on the availability of certain UNEs, line sharing and dedicated transport. Docket Nos. 70000-TK-04-993 and 70040-TK-04-7

The Commission approved the application of Qwest to amend its existing interconnection agreement with Sprint Communications Company to incorporate terms, rates and conditions relating to Qwest DSL. Docket Nos. 70000-TK-04-989 and 70021-TK-04-24

The Commission allowed Qwest to revise Exhibit B to its Wyoming SGAT. Docket No. 70000-TK-04-992

June 24, 2004

The Commission allowed Qwest to enter into a UNE, ancillary services and resale interconnection agreement with Comtech21, LLC. Docket Nos. 70000-TK-04-995 & 70111-TK-04-2

July 6, 2004

The Commission approved stipulations among the individual telecommunications companies, Western Wireless and the Office of Consumer Advocate regarding the companies' requests for further suspension of the FCC's requirement to implement local number portability under 47 U.S.C. § 251(f)(2). The suspension periods ranged in length from 90 to 180 days depending on the individual circumstances of the companies. Docket Nos.:
70001-TA-03-50 [Range Telephone]
70005-TA-03-20 [Chugwater Telephone]
70006-TA-03-63 [Silver Star Communications]
70007-TA-03-42 [Dubois Telephone]
70012-TA-03-22 [Project Telephone]
70013-TA-03-18 [All West Communications]
70015-TA-03-43 [RT Communications]
70016-TA-03-27 [Teton Telecom]

July 7, 2004

Wyoming Telecommunications Council meeting. See further details below in the Section 2 of this Report. Visit the Council's web site at: http://cio.state.wy.us/telecom/index.asp

July 8, 2004

The Commission tabled discussion of further proceedings on the application of Chugwater Telephone Company for designation of its local exchange and switched access services as being subject to competition under W.S. § 37-15-202. Matters under consideration included procedural challenges by the Office of Consumer Advocate and Chugwater's responses. Docket No. 70005-TA-03-19

July 15, 2004

Tel West Communications, LLC., was granted a certificate of public convenience and necessity to provide concurrent local exchange telecommunications services within those areas of Wyoming currently served by Qwest. Docket No. 70044-TA-04-4

July 20, 2004

With regard to the application of Chugwater Telephone Company for designation of its local exchange and switched access services as being subject to competition under W.S. § 37-15-202, the Commission denied the Office of Consumer Advocate's Objection to Late Filed Exhibits and Motion for Dismissal of Petition or Denial of Relief and also denied the Motion to Disregard Untimely Motion filed by Chugwater Telephone Company. The Commission reopened the hearing pursuant to the provisions of Section 115(b)(ix) of its Rules to take further evidence in this case. Docket No. 70005-TA-03-19

July 22, 2004

The Commission authorized United Telephone to enter into an interconnection agreement with 1-800-RECONEX, Inc. Docket Nos. 70009-TK-04-206 and 70033-TK-04-18

July 27, 2004

The Commission approved the amendment of Qwest's existing interconnection agreement with DIECA Communications, Inc. Docket Nos. 70000-TK-04-997 and 70071-TK-04-9

The Commission authorized Qwest to enter into an interconnection agreement with 1-800-Reconex, Inc. Docket Nos. 70000-TK-04-1000 and 70033-TK-04-17

The Commission approved the application of Qwest to enlarge its Cody, Wyoming, base rate area to include therein customers residing in the Panorama View Subdivision, effective August 23, 2004. Docket No. 70000-TT-04-1016

July 29, 2004

Evercom Systems, Inc., was authorized to transfer control of its parent company, Evercom Holdings, Inc., to TZ Holdings, Inc. Docket No. 74294-TA-04-9

August 17, 2004

Qwest was authorized to enter into an interconnection agreement with Covista, Inc. Docket Nos. 70000-TK-04-1003 and 70105-TK-04-2

The Commission approved the internal corporate reorganization plan of XO Network Services f/k/a XO Long Distance Services and XO Communications Services, resulting in a transfer of control. Docket Nos. 70107-TA-04-7 and 74442-TA-04-9

The Commission authorized placement of customer-specific master telecommunications services agreements between Qwest and three of its business customers in the Commission's confidential files with no rate related treatment. Docket Nos. 70000-TK-04-1012, 70000-TK-04-1013 and 70000-TK-04-1014

The Commission approved the application of MCCC ICG Holdings, LLC., and ICG Communications , Inc., to implement a reorganization resulting in a transfer of control. Docket No. 70040-TA-8

The Commission approved the application of Qwest to enter into an interconnection agreement with Qwest Communications Corporation, its related CLEC. Docket Nos. 70000-TK-04-1009 and 70099-TK-04-2

Qwest and AT&T Communications of the Mountain States were authorized to enter into an interconnection agreement. Docket No. 70000-TK-04-9961 and 70106-TK-04-38

August 17-19, 2004

Chairman Hurless attended the 2004 annual conference of the Tri-State Telecommunications Association, an organization of local exchange carriers operating in Wyoming, Utah and Idaho. He made a presentation on current issues facing Wyoming telecommunications regulators.

August 19, 2004

Commissioners and staff members attended a meeting of the Joint Corporations, Elections and Political Subdivisions Interim Committee at which the Committee received a preliminary report on the telecommunications universal service fund study being prepared by QSI, the legislature's consultant on this project. Read the minutes of the meeting on line at:
http://legisweb.state.wy.us/2004/interim/corp/MINUTES/min0819.htm

Jim Roberts, Manager of Regulatory Affairs for United Telephone, made a public presentation of his views on United Telephone's operations and plans for the future. Undocketed

The Commission approved the application of Qwest to revise Exhibits B and K to its Wyoming SGAT. Docket No. 70000-TA-04-1007

August 26, 2004

CommPartners, LLC, received a concurrent certificate of public convenience and necessity to provide resold and facilities-based local exchange and switched access telecommunications services in those Wyoming service areas currently served by Qwest. Docket No. 70115-TA-04-1

The Commission allowed Qwest to amend its line sharing agreement with DIECA Communications. Docket Nos. 70000-TK-04-1015 and 70071-TK-04-10

August 31, 2004

The Commission approved the application of Qwest to enter into an Operator Services Agreement and a Directory Services Agreement with Ionex Communications North. Docket Nos.:
70000-TK-04-1001 & 70022-TK-04-22
70000-TK-04-1002 & 70022-TK-04-23

September 9, 2004

The Commission approved applications for waiver of the service quality reporting requirements of Section 503 of its Rules. Docket Nos.:
74437-TA-04-5 [KDDI America, Inc.]
74352-TA-04-8 [Alliance Group Services, Inc.]

September 12-13, 2004

Commissioners and staff members attended a meeting of the ROC at Missoula, Montana. Topics included: [a] the ROC multi-state Qwest Performance Assurance Plan (QPAP) audit in which Wyoming committed to participate, [b] the telecommunications industry's financial outlook in the wake of the FCC's issuance of the TRO, [c] an update on federal regulation from the FCC, and [d] emerging commercial negotiations and agreements. Undocketed

September 16, 2004

The Commission approved applications for waiver of the service quality reporting requirements of Section 503 of its Rules. Docket Nos.:
74128-TA-04-3 [American Cyber Corporation d/b/a Discount Plus]
74284-TA-04-4 [Coleman Enterprises, Inc. d/b/a Local Long Distance]

The Commission approved the application of MCI, Inc., to cancel the concurrent certificate of public convenience and necessity held by its affiliate, MCI WorldCom Communications, Inc. Docket Nos. 70038-TA-04-4 and 70027-TA-04-39

The Commission approved the application of Gores Portfolio Holdings, Inc., and Global Tel*Link Corporation to transfer control of Global to Gores. Docket No. 74426-TA-04-4

September 17, 2004

Wyoming Telecommunications Council meeting. See further details below in the Section 2 of this Report. Visit the Council's web site at: http://cio.state.wy.us/telecom/index.asp

September 21, 2004

The Office of Consumer Advocate filed a set of Reply Comments with the FCC in CC Docket No. 96-45, In the matter of Federal-State Board on Universal Service, discussing issues regarding evaluations of ETC status by state commissions and the number of lines per subscriber that should receive support. Read a copy of the filing at Appendix I to this Report.

September 22, 2004

The Commission approved the application of CenturyTel of Wyoming to implement an additional line and Caller ID promotional offering for the period of October 1, 2004, through December 31, 2004. Docket No. 70003-TT-04-88

The Commission authorized Qwest Infrastructure Sharing Master Services Agreements to be placed in the Commission's confidential files with no prejudgment of any rate related effects. Docket Nos.:

70000-TK-04-978 and 70011-TK-04-29 [Tri County Telephone Association]
70000-TK-04-979 and 70012-TK-04-23 [Project Telephone Company]

The Commission approved the amendment of Qwest's interconnection agreement with MCIMetro Access Transmission Services to include rates, terms and conditions for Individual Hot Cut and Batch Hot Cut processes. Docket Nos. 70000-TK-04-1018 and 70027-TK-04-37

September 27, 2004

The Commission filed letters with the FCC and the USAC certifying those rural and non-rural incumbent local exchange carriers and Eligible Telecommunications Carriers serving lines in the service area of rural or non-rural incumbent local exchange carriers as being eligible to receive federal universal service fund support. This allows the certified entities to continue to receive federal support in 2005. Commission-certified non-rural carriers included: Advanced Communications Technology, Qwest, Silver Star Communications, Union Cellular, VCI Company, and Western Wireless. Commission-certified rural carriers included: All West Communications, CenturyTel of Wyoming, Chugwater Telephone, Columbine Telephone d/b/a Teton Telecom, Dubois Telephone, Golden West Telephone, Project Telephone, RT Communications, Range Telephone, Silver Star Communications, Tri County Telephone, TCT West, Union Telephone, Union Cellular, United Telephone, and Western Wireless. The Commission's certification ensures that certified companies will receive approximately $28.6 million in federal high cost support to provide, maintain and upgrade facilities and services. You may read copies of the Commission's certifications at Appendix F to this Report. Undocketed

Docket No. 70099-TA-04-3 The Commission approved the application of Qwest Communications Corporation (the Qwest CLEC) to amend its concurrent certificate of public convenience and necessity to offer local exchange telecommunications services in all Wyoming exchanges and to offer facilities-based services.

September 30, 2004

The Commission filed its initial written rate comparability certification to the FCC and the USAC regarding Qwest's residential telecommunications service rates as required by the Code of Federal Regulations. You may read this Rate Certification at Attachment A to Appendix E to this Report.

October 12, 2004

The Commission approved a DC power measuring amendment to Qwest's existing interconnection agreement with McLeodUSA Telecommunications Services, Inc. Docket Nos. 70000-TK-04-1026 and 70023-TK-04-75

The Commission dismissed the complaint of Goolsby, Finley and Associates against Sprint Communications upon resolution of the complaint in favor of the complaining customer. Docket No. 70021-TC-04-23

The Commission granted waivers of certain service quality reporting requirements of Section 503 of its Rules. Docket Nos.:
74592-TA-04-2 [Global Communications Consulting Corp.]
74245-TA-04-3 [Telco Partners, Inc.]
74563-TA-04-2 [Tralee Telephone Company, LLC]
74562-TA-04-2 [Ridley Telephone Company]
74348-TA-04-3 [Main Street Telephone Company]
74356-TA-04-4 [OPEX Communications, Inc.]

The Commission approved Qwest's proposed revisions to Exhibit A to its Wyoming SGAT. Docket No. 70000-TA-04-1021

October 14, 2004

Commission staff attended a meeting of the Joint Corporations, Elections and Political Subdivisions Interim Committee at which the Legislature's consultants, QSI, presented a preliminary version of its report on universal service funding in Wyoming. Mike Korber, Commission staff member and Wyoming Universal Service Fund Manager, testified. The Office of Consumer Advocate also attended and participated. Read the minutes of the meeting on line at:
http://legisweb.state.wy.us/2004/interim/corp/MINUTES/min1014.htm
Undocketed

Qwest's request to enter into an agreement to provide Qwest Platform Plus services to Granite Communications was approved. Docket Nos. 70000-TK-04-1024 and 70108-TK-04-4

The Commission granted a limited concurrent certificate of public convenience and necessity to Bresnan Broadband to provide point-to-point private line telecommunications services to schools and libraries in Wyoming. This is the first certificate of public convenience and necessity granted in Wyoming to a company offering telecommunications services using cable television infrastructure. Docket No. 70114-TA-04-1

ITC^DelaCom was authorized to transfer controlling interest in the company to itself from Welsh Carson through a stock reissuance. Docket Nos. 74224-TA-04-19 and 74122-TA-04-22

The Commission allowed Quantumshift Communications, Inc., to transfer controlling interest in the company to VCOM Solutions, Inc. Docket Nos. 70054-TA-04-5 and 74520-TA-04-2

October 20, 2004

The Commission heard oral arguments on Qwest's Motion to Dismiss with regard to interconnection agreement amendment (for Elimination of UNE-P and Implementation of Batch Hot Cut Process and Discounts) and Master Service Agreement filings of MCImetro Access

Transmission Services. Both filings were approved by the Commission. Docket Nos. 70027-TK-04-28 and 70000-TK-04-1020

The Commission approved an Internet Service Provider-Bound Traffic amendment to Qwest's interconnection agreement with Contact Communications. Docket Nos. 70000-TK-04-1025 and 70026-TK-04-16

October 27, 2004

The Commission approved a Design Services amendment to Qwest's interconnection agreement with DIECA Communications. Docket Nos. 70000-TK-04-1032 & 70071-TK-04-11

The Commission approved a Shared Distribution Loop amendment to Qwest's interconnection agreement with Contact Communications. Docket Nos. 70000-TK-04-1031 & 70026-TK-04-17

MCImetro Access Transmission Services' application for approval of an amendment to its interconnection agreement with Qwest for the elimination of UNE-P and implementation of Batch Hot Cut Process and Discounts and its Master Service Agreement with Qwest were approved. The Commission also denied Qwest's Motion to Dismiss the amendment and Master Service Agreement filings. Docket Nos. 70027-TK-04-28 and 70000-TK-04

November 2, 2004

Qwest and Union Telephone Company presented oral argument on pending matters:

- Qwest's Motion to Dismiss Union's complaint against Qwest for failure to properly route telecommunications traffic. Docket Nos. 70008-TC-04-40 and 70000-TC-04-960
- Union's Petition for Rehearing regarding Qwest's request for arbitration of an interconnection agreement with Union Telephone Company d/b/a Union Cellular. Docket Nos. 70008-TK-04-41 and 70000-TK-04-967
- Application of Qwest to enter into a Type 2 wireless interconnection agreement with Union. Docket Nos. 70008-TK-04-42 and 70000-TK-04-1019

The Commission dismissed the complaint of ACS Networks against Union Telephone Company for failure to prosecute. Docket No. 70008-TC-03-37

The Commission dismissed the Notice of Interconnection Request filed by ACS Networks with respect to Union Telephone Company for failure to prosecute. Docket No. 70008-TA-03-39

November 3, 2004

Qwest was authorized to implement a Shared Distribution Loop amendment to its interconnection agreement with InTTec, Inc. Docket No. 70000-TK-04-1035 & 70049-TK-04-7

Regarding Qwest's request to modify Exhibits B and K to its Wyoming SGAT, the Commission approved a revised Exhibit B and allowed a revised version of Exhibit K to go into effect pursuant to the provisions of 47 U.S.C. § 252(f)(3)(B). Docket No. 70000-TA-04-1033

The Commission authorized Orders to Show Cause why these telecommunications companies should not have their operating authority cancelled because of non-compliance with Wyoming law. The Commission set the hearing for November 30, 2004. Docket Nos.:

70095-TI-04-6 [Budget Phone, Inc.]
70101-TI-04-5 [Alticomm, Inc.]
70102-TI-04-2 [Wyoming Big Sky Telecom]
70103-TI-04-2 [Globcom Incorporated]
74130-TI-04-7 [Atlas Communications. Ltd.]
74385-TI-04-18 [OneStar Long Distance, Inc.]
74565-TI-04-2 [Budget Phone, Inc.]
74579-TI-04-2 [Alticomm, Inc.]
74587-TI-04-2 [Better World Telecom, Inc.]
74597-TI-04-2 [Globcom Incorporated]
70028-TI-04-2 [Atlas Communications, Ltd.]
74265-TI-04-7 [STORMTEL, INC., f/k/a Z-TEL, INC.]
74317-TI-04-6 [Communications Billing, Inc.]
74336-TI-04-6 [Orion Technologies, Inc., f/k/a Special Accounts Billing Group, Inc.]
74388-TI-04-5 [IE Com d/b/a International Exchange Communications]
74514-TI-04-6 [Ciera Network Systems, Inc.]
74515-TI-04-4 [Local Telcom Holding, LLC, d/b/a Transpoint Communications]
74528-TI-04-3 [Direct One, LLC]
74535-TI-04-3 [TELECOMEZ CORP.]
74544-TI-04-2 [Telegenius, Inc.]
74560-TI-04-2 [Equal Access Communications, LLC, d/b/a Equal Access]
74568-TI-04-2 [Choice Telco, LLC, d/b/a C-Telco, LLC]
74589-TI-04-3 [Miko Telephone Communications, Inc.]
74598-TI-04-2 [Colorado Communications Network, Inc., d/b/a/ Hospitality Communications]
70049-TI-04-8 [InTTec, Inc.]
74097-TI-04-4 [Telecare, Inc.]
74340-TI-04-8 [ICG Telecom Group, Inc.]
74411-TI-04-2 [Blackstone Communications Company]
74475-TI-04-4 [JirehCom, Inc.]
74555-TI-04-2 [Teliss, LLC]
74581-TI-04-3 [Dialaround Enterprises, Inc.]

The Commission granted the Motions to Compel Discovery of Western Wireless Holding Company in its arbitration requests involving Range Telephone Cooperative and RT Communications. Docket Nos. 70001-TK-04-54 and 70042-TK-04-6; 70015-TK-04-46 and 70042-TK-04-7

November 8, 2004

The Commission approved a letter agreement between Qwest and Southwestern Bell Communications to allow it to adopt Qwest's SGAT and associated exhibits. Docket Nos. 70000-TK-04-1028 and 70110-TK-04-2

BullsEye Telecom, Inc., was granted a concurrent certificate of public convenience and necessity to provide resold and facilities-based local exchange and access telecommunications services in those areas of Wyoming currently served by Qwest. Docket No. 70116-TA-04-1

GE Business Productivity Solutions (GEBPS) and Business Productivity Solutions, Inc. (BPS) were allowed to transfer assets, customer base and Wyoming operating registration from GEBPS to BPS. Docket No. 74050-TA-04-33

Qwest's Motion to Dismiss the complaint of Union Telephone Company against it for failure to properly route telecommunications traffic was granted. Docket Nos. 70008-TC-04-40 and 70000-TC-04-960

The Commission denied the Union Telephone Company Petition for Rehearing regarding Qwest's arbitration request for an interconnection agreement. Docket Nos. 70008-TK-04-41 and 70000-TK-04-967

Qwest's application to enter into a Type 2 Wireless interconnection agreement with Union Telephone Company was approved. Docket Nos. 70008-TK-04-42 and 70000-TK-04-1019

November 10, 2004

Commissioner Furtney and Chief Counsel Steve Oxley attended a meeting with members of the Wyoming Telecommunications Association, the AARP, and wireless service providers to discuss industry initiatives to amend the Wyoming Telecommunications Act of 1995 intended to be presented to the Legislature. Undocketed

November 12, 2004

The Commission heard oral arguments and scheduled deliberations on the motions for declaratory ruling filed by Range Telephone Cooperative, RT Communications and Western Wireless Holding Company with regard to arbitration requests. Docket Nos. 70001-TK-04-54 and 70042-TK-04-6; 70015-TK-04-46 and 70042-TK-04-7

November 18, 2004

The Commission approved confidential treatment of two Qwest retail customer contracts and directed them to be placed in its confidential files with no prejudgment of any rate making issues. Docket Nos. 70000-TA-04-1044 and 70000-TA-04-1047

The Commission approved a Stipulation and Agreement among the Office of Consumer Advocate, Chugwater Telephone Company and Western Wireless Holding Company with regard to competitive service and local number portability matters concerning Chugwater. This disposed of [a] the Office of Consumer Advocate's motion to terminate Chugwater's local number portability suspension, [b] Chugwater's motion to continue exemption, and [c] a motion to compel discovery brought by the Office of Consumer Advocate. Chugwater was given a suspension of the local number portability requirement for two additional years. Read more about this action in Section 2 of this Report. Docket Nos. 70005-TA-03-19 and 70005-TA-03-20

The Commission approved a Stipulation and Agreement among Project Telephone, Western Wireless Holding Company, and the Office of Consumer Advocate with regard to Project's request for a waiver of the local number portability implementation requirement until March 2005. Docket No. 70012-TA-03-22

The Commission granted the motion of RT Communications to continue suspension of its local number portability implementation obligation for the Kaycee exchange. Docket No. 70015-TA-03-43

The Commission granted motions by Teton Telecom and Silver Star Communications for continuation of the suspension of their local number portability implementation obligations. Docket Nos. 70016-TA-03-27 and 70006-TA-03-63

The Commission granted waivers to these companies of certain provisions of Section 503 of its Rules regarding service quality reporting requirements. Docket Nos.:
74345-TA-04-5 [Reliant Communications, Inc.]
74567-TA-04-3 [Horizon Telecom, Inc.]
74519-TA-04-6 [Reduced Rate Long Distance, LLC]
74550-TA-04-2 [ECI Communications, Inc.]

Excel Telecommunications, Inc., and Vartec Telecom, Inc., were allowed to merge Excel Telephone into Excelcom, Inc. Docket Nos. 70020-TA-04-18, 74015-TA-04-49, 70092-TA-04-14, and 74077-TA-04-60

The Commission approved the joint application of Qwest and Contact Communications to amend their existing interconnection agreement to provide for line sharing. Docket Nos. 70000-TK-04-1037 and 70026-TK-04-18

The Commission consolidated these two proceedings for arbitration of interconnection agreements between Range Telephone, RT Communications (Petitioners) and Western Wireless and denied the Petitioners' opposition to the notice of intervention filed by the Office of Consumer Advocate. See W.S. § 37-2-702(a). Docket Nos. 70001-TK-04-54 and 70042-TK-04-6 and Docket Nos. 70015-TK-04-46 and 70042-TK-04-7

November 23, 2004

Deputy Chair Furtney was appointed to the ROC Performance Assurance Plan Audit Collaborative Executive Committee and staff member Mike Korber was appointed to the related Steering Committee. The audit will examine how well Qwest Corporation is performing in providing services and products to their wholesale (CLEC) customers under the QPAP. Undocketed

The Commission implemented a more informational open meeting minute format. Review the new and expanded minute format on the web at http://psc.state.wy.us

November 24, 2004

Docket Nos. 70001-TK-04-54 and 70042-TK-04-6; 70015-TK-04-46 and 70042-TK-04-7 [Petitions for arbitration of interconnection agreements between Range Telephone and Western Wireless and RT Communications and Western Wireless.] On its own motion, the Commission issued orders to Range Telephone and RT Communications to show cause why they should not be sanctioned for disobeying the Commission's oral orders of November 3, 2004, compelling responses to discovery propounded by Western Wireless. The Commission set the show cause hearing for December 3, 2004.

November 30, 2004

Show cause hearings were held regarding revocation of the operating authority of the companies listed in the chronology entry for November 3, 2004.

Qwest and Z-Tel Communications were authorized to amend their interconnection agreement to include terms and conditions for a Batch Hot Cut process and to remove certain UNEs. Docket Nos. 70000-TK-04-1041 and 70084-TK-04-39

The Commission authorized Qwest and Advanced Communications Technology, Inc., to amend their interconnection agreement for commercial line sharing. Docket Nos. 70000-TK-04-1039 and 70096-TK-04-9

The Commission authorized the amendment of Qwest's interconnection agreement with Multiband Communications, LLC. Docket No. 70000-TK-04-1038

December 2, 2004

OneStar Long Distance, Inc., received authority to transfer its assets and customers to Telrite Corporation. Both companies are interexchange telecommunications resellers. Docket Nos. 74385-TA-04-17 and 74601-TA-04-2

The Commission canceled the operating authority of these companies for failure to comply with the requirements of Wyoming law requiring the filing of Commission annual reports, Department of Revenue uniform assessment reports, or both. Docket Nos.:

70101-TI-04-5 [Alticomm, Inc.]
70102-TI-04-2 [Wyoming Big Sky Telecom]
70103-TI-04-2 [Globcom Incorporated]
74130-TI-04-7 [Atlas Communications, Ltd.]
74385-TI-04-18 [OneStar Long Distance, Inc.]
74579-TI-04-2 [Alticomm, Inc.]
74587-TI-04-2 [Better World Telecom, Inc.]
74597-TI-04-2 [Globcom Incorporated]
70028-TI-04-2 [Atlas Communications, Ltd.]
74265-TI-04-7 [STORMTEL, INC. f/k/a Z-TEL, INC.]
74514-TI-04-6 [Ciera Network Systems, Inc.]
74515-TI-04-4 [Local Telcom Holding, LLC d/b/a Transpoint Communications]
74528-TI-04-3 [Direct One, LLC.]
74544-TI-04-2 [Telegenius, Inc.]
74589-TI-04-3 [Miko Telephone Communications, Inc.]
74598-TI-04-2 [Colorado Communications Network, Inc. d/b/a Hospitality Communications]
74317-TI-04-6 [Communications Billing, Inc.]
74336-TI-04-6 [Orion Technologies, Inc., f/k/a Special Accounts Billing Group, Inc.]
74388-TI-04-5 [IE Com (International Exchange Communications, Inc.)]
74535-TI-04-3 [TELECOMEZ CORP.]
74560-TI-04-2 [Equal Access Communications, LLC d/b/a Equal Access]
74568-TI-04-2 [Choice Telco, LLC d/b/a C-Telco, LLC]
74475-TI-04-4 [JirehCom, Inc.]

The Commission dismissed the show cause proceedings against these companies because they complied with appropriate Commission and Department of Revenue filing requirements and are not in violation of Wyoming law. Docket Nos.:

70095-TI-04-6 [Budget Phone, Inc.]
74565-TI-04-2 [Budget Phone, Inc.]
70049-TI-04-8 [InTTec, Inc.]
74097-TI-04-4 [Telecare, Inc.]
74340-TI-04-8 [ICG Telecom Group, Inc.]
74411-TI-04-2 [Blackstone Communications Company]
74555-TI-04-2 [Teliss, LLC]
74581-TI-04-3 [Dialaround Enterprises Inc.]

December 3, 2004

The Commission held a show cause hearing on the issue of why Range Telephone and RT Communications should not be sanctioned for failure to comply with a Commission order directing them to fully answer certain interrogatories and document requests of Western Wireless. The companies were not sanctioned based on their representations of cooperation. Docket Nos. 70001-TK-04-54 and 70042-TK-04-6; 70015-TK-04-46 and 70042-TK-04-7

December 7, 2004

The Commission granted the joint motion of Qwest and the Office of Consumer Advocate to withdraw their request for a public hearing regarding the approval of Qwest's 2004 TSLRIC study inputs. Docket No. 70000-TA-04-999

Qwest was authorized to amend its interconnection agreement with New Edge Network, Inc. Docket Nos. 70000-TK-04-1042 and 70056-TK-04-11

Southwestern Bell Communications Services Inc., d/b/a SBC Long Distance, was given authority to transfer control to SBC Telecom, Inc., and change its name. Docket Nos. 70110-TA-04-4 and 74263-TA-04-57

December 10, 2004

Wyoming Telecommunications Council meeting. See further details below in the Section 2 of this Report. Visit the Council's web site at: http://cio.state.wy.us/telecom/index.asp

December 15, 2004

In Qwest's petition for arbitration of an interconnection agreement with Union Telephone Company d/b/a Union Cellular [Docket Nos. 70000-TK-04-967 and 70008-TK-04-41]; and the complaint filing by Union Telephone Company against Qwest for failure to properly route telecommunications traffic [Docket Nos. 70008-TC-04-40 and 70000-TC-04-960]; the Commission dismissed both proceedings after oral argument of the parties on procedural motions.

On the request of Qwest and the Office of Consumer Advocate, the Commission postponed the public hearing on Qwest's application for approval of its 2004 TSLRIC study filing. Docket No. 70000-TA-04-1045

Extreme Media Technologies was granted a concurrent certificate of public convenience and necessity to provide local telecommunications service in Wyoming. Docket No. 70117-TA-04-1

Z-Tel Communications, Inc. was authorized to change its name to Trinsic Communications, Inc. Docket No. 70084-TT-04-41

December 16-17, 2004

The Joint Corporations, Elections and Political Subdivisions Interim Committee discussed QSI's December 3, 2004, report to the legislature entitled *The Wyoming Universal Service Fund: An Evaluation of the Basis and Qualification for Funding.* Commissioners and members of the Commission staff attended and participated. Read the minutes of the meeting at:
http://legisweb.state.wy.us/2004/interim/corp/MEETINGS/Final%20Report%20To%20Legislature%2011-30-04.pdf

December 21, 2004

The Commission and the Office of Consumer Advocate filed a joint petition with the FCC asking for supplemental federal universal service funds for customers of Qwest, arguing that the federal support for the rates of Qwest's Wyoming customers did not fulfill the mandate of the federal Act for affordable rates for quality services which are reasonably comparable to the services and rates offered to urban customers in the United States. Wyoming has eliminated implicit subsidies from rates, initiated the Wyoming universal service fund and has ensured that each service's price covers its TSLRIC costs. See the Joint Petition and its attachments at Appendix E to this Report.

December 23, 2004

The Commission authorized an amendment to Qwest's interconnection agreement with XO Network Services, Inc. Docket Nos. 70000-TK-04-1046 and 70107-TK-04-9

Qwest and Southwestern Bell Communication Services a/k/a SBC Long Distance obtained authority to amend their existing interconnection agreement. Docket Nos. 70000-TK-04-1040 and 70110-TK-04-3

c. Selected Telecommunications Regulatory Matters Now Pending

- The ongoing post-Section 271 administration by the Commission of issues concerning Qwest's SGAT, QPAP, modification of PIDs and proceedings on related subjects.

- Pending proceedings on determinations of Qwest's TELRIC and TSLRIC costs.

- The collaborative effort of the ROC states to audit the Qwest QPAP. Deputy Chair Furtney and staff member Mike Korber are the principal participants for Wyoming.

- Laramie County District Court appeals taken by Union Telephone Company from Commission decisions bearing on the wholesale business relationship of Union with Qwest. The appealed decisions were made in [i] Docket Nos. 70000-TK-04-967 and 70008-TK-04-41; and [ii] Docket Nos. 70000-TC-04-960 and 70008-TC-04-40

These are not all of the telecommunications cases or other matters now pending before the Commission. If you want more information about any case or company described above or information on *any* telecommunications regulatory matter, please visit the various Commission data bases at our web site at http://psc.state.wy.us

d. Telecommunications at the Governor's Planning Office

At the Governor's Planning Office, Steve Ellenbecker, the Governor's Energy and Telecommunications Policy Advisor, has responsibility for telecommunications issues. In his

daily work, he provides information, assistance, and advice on telecommunications matters and helps constituents to resolve problems and get answers to questions. He researches and evaluates new telecommunications technologies for possible applicability in Wyoming's rural environment and supports the Wyoming Telecommunications Council's Broadband Initiative efforts. He is a liaison from the Governor's office to the Public Service Commission on telecommunications matters. He brings many years of experience in telecommunications to the job.

Mr. Ellenbecker may be contacted at 307-777-8521 or sellen@state.wy.us

Governor's Planning Office
Herschler Building
122 West 25th Street
Cheyenne, Wyoming 82002

e. The Wyoming Office of Consumer Advocate

The mission of the Office of Consumer Advocate is to provide independent and direct representation of Wyoming utility ratepayers before the Wyoming Public Service Commission in utility filings and applications in which the public interest is contested. The OCA is dedicated to ensuring that safe, adequate and reliable utility services are available to all Wyoming citizens at affordable rates.

During 2004, the OCA was an active intervenor in several telecommunications cases before the Wyoming Public Service Commission.

On November 5, 2003, Chugwater Telephone Company filed an application seeking a determination under W.S. § 37-15-202(a), that its facilities-based local exchange and access services, including essential services, are subject to competition, and therefore no longer subject to price regulation by the Commission. The OCA entered into a stipulation with Chugwater on this request which the Commission approved in open meeting on November 18, 2004. The stipulation provides that Chugwater is allowed downward pricing flexibility for the services it provides, including essential and non-competitive services, for a period of two years, after which time it may file another request to have its services found competitive. The OCA has agreed not to contest any future request of Chugwater that its local services be found competitive but has made no such agreement regarding switched access.

In March 2004, Range Telephone, Chugwater Telephone, Silver Star Communications, Dubois Telephone, Project Telephone, All West Communications, RT Communications and Teton Telecom filed applications for suspension of the FCC's requirement to implement LNP under federal law (see the federal rule at 47 CFR § 251(f)(2)). Number portability is essential to the continued development of competitive markets in Wyoming and the OCA worked diligently to ensure that these companies would not be permanently exempted from the requirement to provide it. As a result of our efforts, at its regular open meeting on July 6, 2004, the Commission approved stipulations in each of these cases which ensure that the listed companies are either now, or will be in the near future, able to comply with the FCC's number portability requirements.

In March 2004, Western Wireless filed a request to become an Eligible Telecommunications Carrier (ETC) in Qwest's Cody and Powell exchanges. The OCA intervened in this case, which is scheduled to go to hearing in March 2005. The matter has also been consolidated with another ETC application filed by Western Wireless in August 2004 with regard to the Clark, Basin, Frannie, Greybull, Lovell, Meeteetse, Burlington, Hyattville and Ten Sleep exchanges. The OCA will be asking the Commission to carefully consider whether Western Wireless is currently complying with each of the federal ETC requirements.

On June 15, 2004, the OCA filed comments raising concerns regarding the appropriateness of the computations associated with the Wyoming Universal Service Fund. The OCA's preliminary computations showed that distributions from the fund were more than $500,000 less than they should have been. On December 21, 2004, the OCA received a response from the WUSF manager agreeing in part with the OCA concerns. The OCA is currently drafting an additional response in this matter. [Ed. note. In his response, the WUSF Manager recommended a one-time adjustment of $229,000 for the remedy ordered by the Commission for recalculations associated with the fiscal year ended June 30, 2004. This adjustment derives from a one-time refund/bill credit of $6.18 per affected customer.]

On November 1, 2004, Qwest Communications filed its required TSLRIC study detailing the forward looking costs for the services it provides in Wyoming. The OCA has been actively engaged in reviewing this filing and intends to prepare and present testimony regarding the studies at a public hearing scheduled to begin on February 22, 2005. Silver Star Communications has also been an active intervener in this case and is disputing the nature of Qwest's Wyoming cost studies. Specifically, Silver Star believes that Qwest's TSLRIC studies, since they are highly averaged studies, do not reflect the true geographically deaveraged cost that Qwest incurs to serve its Wyoming customers. In rural areas, this means that Qwest's retail price is lower than it otherwise would be if the cost were not averaged with larger, more urban wire centers, and the converse would also be true of the larger Qwest wire centers. Because Silver Star competes with Qwest in the Afton exchange, which is a very small wire center in western Wyoming, Silver Star believes that Qwest has an unfair competitive advantage based on its average cost and pricing practices. The OCA will continue to review this filing and will offer its own recommendations to the Commission at the February 22, 2005, hearing.

On August 23, 2004, Qwest filed its required TELRIC study. TELRIC studies are critical in formulating fair terms and conditions for the interconnection of the facilities of competing providers as identified in Qwest's SGAT. A recent decision of the United States Court of Appeals for the Ninth Circuit to exempt switching and other network elements from the FCC's unbundling requirements will have an impact on the TELRIC studies under review by the OCA. The matter is scheduled for hearing before the Commission beginning on March 8, 2005.

The OCA also filed comments, either individually or jointly, in five federal proceedings during 2004. On January 12, 2004 the OCA filed comments in CC Docket No. 96-45, responding to an FCC request for comments in the Further Notice of Proposed Rulemaking regarding [i] the sufficiency of federal universal service funding in rural areas, and [ii] the comparability of rates between urban and rural areas, in particular for non-rural carriers serving

rural areas. The OCA comments argued that, because of the statewide study area issue, the rates of the non-rural carrier (Qwest) in Wyoming are not comparable to those in urban areas because the support it receives from the federal universal service fund is not sufficient to achieve rate comparability. The OCA urged the FCC to continue to explore funding methods that will bring more comparability to urban and rural rates.

On February 13, 2004, the OCA submitted reply comments in the matter of the Petition for Rulemaking to Eliminate Rate-of-Return Regulation of Incumbent Local Exchange Carriers, filed by Western Wireless in CC Docket No. 96-45). In its petition, Western Wireless argued for the elimination of rate-of-return regulation of rural incumbent local exchange carriers for the purpose of determining their federal high-cost universal service support and interstate access charges. Instead, Western Wireless proposed development of a support model that [i] is the lower of the wireline or wireless forward-looking cost in each geographic area, and [ii] based on the developed forward-looking cost, support be provided only when retail rates exceed a predetermined minimum "affordable" level. While the OCA supports sensible changes to federal support mechanisms that enhance the affordability and accessibility of telephone service, the OCA disagrees with Western Wireless' approach to modification of these mechanisms. Read these Reply Comments at Appendix H to this Report.

On September 21, 2004 the OCA filed reply comments in CC Docket No. 96-45 further supporting its request for additional federal universal service fund support for Wyoming customers and responding to several questions raised by the FCC in its Further Notice of Proposed Rulemaking. Specifically, the OCA recommended that:

> "As the process of reforming the federal USF support system continues, the Wyoming OCA asks that the Commission focus on the principles of the federal Telecommunications Act of 1996. While we agree that there are a number of inefficiencies in the current distribution of the fund, and the distribution should be more precisely targeted to those high cost and high priced areas of the nation, this does not translate into specific caps or fund size limitations. Limiting the size of the fund should not become the Commission's primary goal in this proceeding to such an extent that the other important principles of the Act are ignored or overlooked. Rather, maintaining ubiquitous, affordable service with all customers having the ability to access both basic and advanced services, while preserving essentially equal footing for competitors must be the outcome in this reform proceeding. Finally, any reforms adopted should be clearly and comprehensively expressed, including all administrative and procedural aspects."

Read the entire text of these comments at Appendix I to this Report.

On November 17, 2004 Denise Parrish, Deputy Administrator of the OCA, testified before an *en banc* hearing of the Federal-State Joint Board on Universal Service on behalf of the National Association of State Utility Consumer Advocates (NASUCA) on the issue of high-cost service support for areas served by rural carriers and on related issues. In her testimony, Parrish articulated five principles that should guide federal universal service reform:

- affordability of basic communications services by all, including the economically disadvantaged;
- ubiquitous access to quality services throughout the nation;
- equitable and reasonably comparable treatment of urban and rural customers;
- a system of support that can be counted on to keep and better the high-quality and reliable telephone network that has been established throughout America; and

- a system of distributing support that neither advantages nor disadvantages emerging technologies or competitors in meeting basic communications needs.

Read this statement at Appendix J to this Report.

On December 21, 2004, the OCA and the Commission submitted a Joint Petition (CC Docket No. 96-45) for consideration by the FCC and the Federal-State Joint Board on Universal Service for supplemental federal universal service funds for customers of Wyoming's non-rural incumbent local exchange carrier (Qwest). In the Joint Petition, the OCA and the Commission again sought additional federal funding to eliminate the disparity that currently exists between urban and rural rates for Qwest's Wyoming customers, arguing that Wyoming had fulfilled its obligations under the federal Act and the FCC rules to eliminate implicit subsidies and establish an explicit state universal service support mechanism, but that those efforts are insufficient to assure the rate comparability required by the federal Act. The analysis in the Joint Petition also showed that approximately $4.7 million in additional federal funding is necessary in order to achieve rate comparability between urban and rural rates in Wyoming. NASUCA has expressed its intent to file comments in support of the Joint Petition of the OCA and the Commission.

Learn more about the activities of the Office of Consumer Advocate at its web site:

http://psc.state.wy.us/oca.htm

f. The Wyoming Universal Service Fund

The Wyoming Universal Service Fund (WUSF) is authorized in the Wyoming Act at W.S. § 37-15-501 and is further defined in Section 500 of the Commission's Rules. It was established to assist in maintaining affordable prices for essential telecommunications services while Wyoming's telecommunications markets are in transition from a regulated, monopolistic model to a competitive model. According to the Wyoming Act, it was established to "assist only those customers of telecommunications companies located in areas of this state with relatively high rates for essential services." The fund provides support to these high cost customers when their rate for local telecommunications service, after a credit for federal universal service funds, exceeds one-hundred thirty percent (130%) of the statewide weighted average rate.

The WUSF is funded through an assessment on customer bills which is applied to all intrastate telecommunications services. The assessment level has changed over time as funding requirements have changed due to [i] changes in local telecommunications service prices, [ii] the level of federal support provided, and [iii] the balance in the WUSF. Because collections in prior fiscal years is considered sufficient to sustain the fund in the 2004-2005 fiscal year, the universal service fund assessment percentage applied to customer bills has been reduced to 0%. The assessment history for the universal service fund is as follows:

Assessment	Docket Number	Effective Date
1%	90072-XO-97-1	07/01/97
2%	90072-XO-98-2	04/01/98
2%	90072-XO-98-3	07/01/98
6%	90072-XO-98-4	10/01/98

continued

Assessment	Docket Number	Effective Date
3%	90072-XO-99-6	03/01/99
2%	90072-XO-99-10	07/01/99
3%	90072-XO-99-11	10/01/99
2%	90072-XO-00-13	07/01/00
4%	90072-XO-01-17	07/01/01
4%	90072-XO-02-20	07/01/02
1%	90072-XO-03-22	07/01/03
0%	90072-XO-04-24	07/01/04

Under Section 500(k) of the Commission's Rules, the manager of the WUSF filed a report to the Commission which provided details regarding the computation of a recommended assessment level for the 2004-2005 WUSF fiscal year and gave details of fund activity for the 2003-2004 fund fiscal year, as set forth below:

Schedule of Receipts and Disbursements
July 1, 2003, through June 30, 2004

Fiscal Year beginning balance	$ 6,252,028
Assessments and Penalties received	3,609,834
Qwest section 271 QPAP payments	49,145
Investment income	242,809
Total Fiscal Year receipts	3,901,788
Disbursements for support	(2,490,418)
Disbursements for administrative expenses	(65,527)
Fiscal year ending balance	$7,597,871

Rate Averages and Total Support Projections
July 1, 2004, through June 30, 2005

	Residential and Business
Statewide Weighted Average Local Service Rate	$24.36
130% Support Benchmark	$31.67
Total 2004-2005 Support Projection	$3,644,000

The Commission addressed a number of important issues regarding the WUSF this year. They were:

- On May 3, 2004, the Commission issued an order suspending the Wyoming Universal Service Fund assessment for the twelve-month period beginning July 1, 2004 (i.e., establishing the level at 0% of gross intrastate retail revenues). This order also established the weighted statewide average rate at $24.36 and the associated support benchmark at $31.67 for the fiscal year beginning July 1, 2004. [Docket No. 90072-XO-04-24]

- In June 2004, the Wyoming Legislature retained QSI Consulting to review and analyze the WUSF. Specifically, the legislation provided funding for a study of the current WUSF, including [a] the effects of changing the current fund from a price-based fund to a cost-based fund, [b] the implications and desirability of supporting only a single (primary) line for business and residential customers receiving support from the fund, [c] the universal service fund subsidy level and [d] the appropriate structure for the fund. In addition QSI Consulting also committed to including an evaluation of the potential effect of new, low cost telecommunications technologies on the fund. PSC staff members Mike Korber (the WUSF Manager) and Barbara Iversen (WUSF Specialist) worked extensively with QSI Consulting during the project. Substantial amounts of data on the history and current operating characteristics of the WUSF were provided to QSI to assist it in the preparation of the required report to the Wyoming Legislature.

  On December 16-17, 2004, QSI Consulting presented its *Report to the Wyoming Legislature on the Wyoming Universal Service Fund* to the Joint Corporations, Elections and Political Subdivisions Interim Committee. In the *Report*, QSI Consulting recommended the following:

  1. The Legislature should consider directing the Commission to open a proceeding to fully address and examine the issues and consequences of changing from a price-based fund to some form of cost-based fund.

  2. The WUSF should continue to support all qualifying access lines and not just primary access lines.

  3. The Legislature should consider an additional study designed to examine and quantify new and developing technologies in the telecommunications industry and their applicability in addressing universal service goals and objectives.

Read QSI's *Report* on line at:
http://legisweb.state.wy.us/2004/interim/corp/MEETINGS/Final%20Report%20To%20Legislature%2011-30-04.pdf

[Find out more about the Wyoming Universal Service Fund and related telecommunications matters on the web at: **http://psc.state.wy.us/wyusf.htm**]

g. Federal Universal Service Fund Issues

In 2004, there were some changes to the Federal Universal Service Fund, including adjustments to the computations and support mechanism regarding non-rural carriers. These adjustments included updating the line counts used in the federal universal service funding model and translating the model itself into a more modern computer language. As described below, the FCC also responded to an earlier federal appeals court decision, but with little change in the actual distribution of funds. The FCC is continuing its discussions with industry participants regarding the best means of collecting the funds needed to provide the basic support needed to maintain affordable, quality, nationwide telecommunications service. At the time of this Report, no further orders had been issued on changes to the collection method.

In October, 2002, the FCC sought comment on the Joint Board's recommendations in response to the Court's remand regarding universal service funding issues. Generally, the Joint Board recommended: [i] continuing the use of a national average cost benchmark based on 135% of the national average cost; [ii] funding 76% of the state average costs exceeding the national benchmark; [iii] establishing a national rate benchmark based on a percentage of the national average urban rate [iv] implementing state review and certification of rate comparability; and [v] providing states the opportunity to demonstrate that further federal action is needed because current federal support and state actions together are insufficient to yield reasonably comparable rates. The Commission filed two sets of comments on these recommendations.

On October 27, 2003, the FCC released its *Order on Remand, Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order* in response to the above-described decision of the Tenth Circuit and the recommendations of the Federal-State Joint Board on Universal Service. In this order, the FCC:

- reaffirmed that comparing statewide average costs to a nationwide cost benchmark reflects the appropriate federal and state roles in determining federal non-rural high-cost support;
- defined "sufficient" as enough federal support to enable states to achieve reasonable comparability of rural and urban rates in high-cost areas served by non-rural carriers;
- defined "reasonably comparable" in terms of a national urban rate benchmark;
- modified the non-rural support mechanism by basing the cost benchmark (used to determine the amount of non-rural high-cost support) on two standard deviations above the national average cost per line;
- adopted a rate review and expanded certification process in which the states must certify whether their rural rates are reasonably comparable to urban rates nationwide or explain why they are not;
- established an annually-adjusted nationwide rate benchmark based on two standard deviations above the most recent urban residential rates in the FCC's Wireline Competition Bureau's annual rate survey that will be used to establish a 'safe harbor' determination of whether rates are presumed to be comparable to urban rates nationwide;
- established a basic service rate template for states to use in comparing rates in rural, high-cost areas served by non-rural carriers to the nationwide urban rate benchmark;
- adopted the recommendation to permit states to request further federal action, if necessary, based on a demonstration that the state's rates in rural, high cost areas served by non-rural carriers are not reasonably comparable to urban rates nationwide, and that the state has taken all reasonable steps to achieve reasonable comparability; and
- reviewed the FCC's comprehensive plan for supporting universal service in high-cost areas.

In this October 27, 2003, order, the FCC sought comment on the rate review and expanded certification process. The FCC proposed a method for calculating any additional targeted federal support that may be provided in response to a state request for further action, based on forward-looking cost estimates. Under this proposal, any support would be targeted on a wire-center basis, using a set percentage of per-line costs exceeding a threshold above the national average cost for wire centers. Specifically, the FCC sought comments on:

- whether it should require states to file additional data that might enhance the FCC's ability to assess the non-rural mechanism and state actions to achieve comparability of urban and rural rates;
- the role of calling scopes in the rate review process; and
- how to treat any state requests for further federal action, including procedures for states to submit any such request, required showings by requesting states, and how to calculate any additional support.

The October 27, 2003, order also sought comment on whether the FCC should make additional targeted federal support available for high-cost wire centers in states that implement explicit universal service mechanisms. It also asked whether any such additional support, rewarding states for explicit universal service mechanisms, should be without regard to their achievement of rate comparability.

On May 24, 2004, the Commission filed a brief as Petitioner/Intervenor in support of a petition for review of the FCC's Order on Remand [Order on Remand, *Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order, In the Matter of Federal-State Joint Board on Universal Service*, 18 FCC Rcd 22559, CC Docket No. 96-45 (2003)] with the United States Court of Appeals for the Tenth Circuit in *Qwest Communications International, Inc., v. Federal Communications Commission and United States of America* (No. 03-9637). In its brief, the Commission argued that the Order on Remand does not provide for sufficient federal support to high-cost, rural states like Wyoming, as required by the letter of the federal Act. The brief contains a discussion of the inadequacy of federal high cost support and Wyoming's work in implementing the Wyoming universal service fund and in addressing other basic service pricing issues.

The Wyoming Office of Consumer Advocate submitted comments in response to the FCC's *Further Notice*. The OCA encouraged the FCC to look for all ways possible to continue to enhance its review and enforcement of the comparability standard found at Section 254(b)(3) of the federal Act. The OCA suggested that any additional data gathered should focus on each state's movement toward a competitive model, as well as encompassing both comparability *and* affordability issues. The OCA cautioned that the quality and context in which the numerical rate data is derived may be as important as the rate comparisons themselves. The OCA suggested that each individual state should be free to make a showing (but *not* on a one-size-fits-all basis) that it has done what it can to achieve urban/rural rate comparability and that it still needs federal funds assistance to reach its final goal. The OCA further suggested that Wyoming would readily be able to make such a showing. Finally, the OCA argued that the FCC should recognize states that have made a movement toward self-help through the implementation of a state universal service fund.

On July 14, 2003, the FCC issued its *Report and Order on Reconsideration*, adopting the recommendation of the Federal-State Joint Board on Universal Service to retain the existing list of services supported by the federal universal service fund. The FCC agreed with the Joint Board's general conclusion that no new service satisfies the statutory criteria contained in Section 254(c) of the federal Act and that the public interest would not be served by expanding the list of supported services at this time. It indicated that the current list of supported services strikes the right balance between ensuring the availability of fundamental telecommunications services to all Americans and maintaining a sustainable universal service fund. The services considered – but rejected for inclusion -- by both the Joint Board and the FCC include:

- advanced or high-speed services;
- unlimited local usage;
- soft dial tone or warm line services;
- prepaid calling plans;
- payphone lines;
- Braille TTY and two line voice carry over;
- N11 codes;
- toll or expanded area service;
- modifying voice grade access bandwidth;
- transport costs;
- rural wireless ETC category;
- and technical and service quality standards.

The Joint Board was unable to reach agreement on whether to include equal access in the list of core services and the FCC, at this time, likewise made no decision regarding equal access. The definition of core, supported services remains as originally ordered in 1997:

- voice grade access to the public switched network, with the ability to place and receive calls;
- dual tone multifrequency signaling or its functional equivalent [touchtone];
- single party service;
- access to emergency services, including in some instances, access to 911 and enhanced 911 services;
- access to operator services;
- access to interexchange services;
- access to directory assistance; and
- toll limitation services for qualifying low-income consumers.

On May 12, 2004, the Commission sent a letter to Senator McCain and Representative Barton urging support of federal legislation that would ensure a fairer and more targeted distribution of federal universal service support to rural states like Wyoming. The letter highlighted some of the inequities that currently exist in the federal universal service support program as they concern the treatment of "non-rural" carriers like Qwest which serve large numbers of high-cost rural customers in Wyoming. Read a copy of this letter at Appendix G to this Report.

On September 24, 2004, the Commission filed with the FCC and the USAC its annual *Certification of High Cost Support for Rural Carriers and Eligible Telecommunications Carriers (ETCs) Serving Lines in the Service Area of a Rural Carrier Pursuant to 47 C.F.R. § 54.314* (CC Docket No. 96-45) showing that the federal universal service fund monies received by Wyoming's rural local service providers and a wireless carrier are being used in a manner

consistent with Section 254(e) of the Federal Telecommunications Act of 1996. The certified entities include: All West Communications, Inc., CenturyTel of Wyoming, Inc., Chugwater Telephone Company, Columbine Telephone Company d/b/a Teton Telecom, Dubois Telephone Exchange, Inc., Golden West Telecommunications Cooperative, Inc., Project Telephone Company, RT Communications, Inc., Range Telephone Cooperative, Inc., Silver Star Communications, Tri-County Telephone Association, TCT WEST, Union Telephone Company, United Telephone Company of the West d/b/a Sprint, Western Wireless and Union Telephone Company d/b/a Union Cellular. On the same day, the Commission filed with the FCC and the USAC its *Certification of High Cost Support for Non-Rural Carriers and Eligible Telecommunications Carriers (ETCs) Serving Lines in the Service Area of a Non-Rural Carrier Pursuant to 47 C.F.R. § 54.313* (CC Docket No. 96-45), making a similar certification for companies classified by the FCC as "non-rural." This group included Advanced Communications Technology, Qwest Corporation, Silver Star Communications, Union Telephone Company d/b/a Union Cellular, VCI Company and Western Wireless. These Commission certifications are a federal requirement for the continued receipt of federal universal service funding by the designated Eligible Telecommunications Carriers in Wyoming. Read these certifications at Appendix F to this Report.

On September 30, 2004, the Commission filed its initial Residential Rate Comparability Certification with the FCC and the USAC. This filing compared the rates for Qwest's rural customers in Wyoming with the nationwide urban rate benchmark established by the FCC for 2004. The Commission concluded in this filing that the rates for Qwest's rural customers are not comparable to the nationwide benchmark and that supplemental federal universal service support is necessary if Qwest is to meet this comparability standard. The Commission attached a copy of this Rate Certification to its Joint Petition described below. Read a copy of this Rate Certification: Attachment A to Appendix E to this Report.

On December 21, 2004, the Commission and the Office of Consumer Advocate filed a Joint Petition with the FCC requesting additional federal universal service funding support for Quest's customers in rural high-cost areas of Wyoming where Qwest provides local exchange service. The Joint Petition requests the supplemental federal funding support for those Qwest customers as provided for in the FCC's October 2003 Order on Remand. The Joint Petition points out that Wyoming, alone among the states, has eliminated implicit rate subsidies, brought rates up to cover costs and has established a fully functioning explicit state universal support mechanism. Even considering this, Qwest's high-cost customers still should obtain additional federal support under the parameters of the federal Telecommunications Act of 1996. Read a copy of the Joint Petition and its attachments at Appendix E to this Report.

Each year, the federal and state staff members of the Joint Board on Universal Service release a report on the various components of the federal Universal Service Fund support programs. This report, known as the *Monitoring Report*, contains information designed to monitor the impact of various universal service support mechanisms and to provide data on the effects of federal regulatory policies. The *Monitoring Report* also summarizes the annual contributions to and disbursements from the major universal service support programs: low-income support; high-cost support; schools and libraries support; and rural health care support. Below are Wyoming figures from the 2004 *Monitoring Report* compared to data for the previous reporting year:

	2003		2004	
	Committed*	Disbursed*	Committed*	Disbursed*
Wyoming High Cost Support	$40,243,668		$41,441,068	
Wyoming Low Income Support	$274,974		$343,295	
Wyoming Schools and Libraries Support	$3,284,625*	$124,386*	$1,335,416	$141,973
Wyoming Rural Health Support	$73,233*	$18,447*	$62,856	$37,634

*For the schools and libraries and the rural health care support programs, funding is broken down in the *Monitoring Report* in terms of funds committed and funds disbursed.

Below are the national figures for the various types of federal universal service support programs:

	2003	2004
National High Cost Support	$2.8 billion	$3.3 billion
National Low Income Support	$673 million	$716 million
National Schools and Libraries Support	$2.2 billion	$1.7 billion
National Rural Health Support	$15 million	$19.2 million
TOTAL UNIVERSAL SERVICE	$5.688 billion	$5.735 billion

The latest projections from the FCC, the Joint Board on Universal Service and the USAC show that Wyoming local exchange carriers are scheduled to receive federal high-cost support (including all federal high-cost support mechanisms – high-cost loop support, interstate access and common line support, long term support and local switching support) in the amounts set out in the table below. These amounts are subject to quarterly revisions and updates throughout the reporting year and thereafter. Last year's reported figures are shown for comparative purposes.

Company	Prior Reporting Year	Current Reporting Year
All West Communications	$116,904	$125,552
CenturyTel of Wyoming	$793,428	$1,057,736
Chugwater Telephone Company	$166,584	$301,456
Dubois Telephone Exchange	$1,954,380	$2,189,204
Qwest Corporation	$15,602,316	$13,861,468
Range Telephone Cooperative (includes RT Communications)	$8,081,028	$7,924,620
Silver Star Communications	$1,469,556	$2,052,736
Tri County Telephone Association (includes TCT WEST)	$5,296,260	$6,760,104
Union Telephone Company	$4,663,668	$5,001,936
Sprint/United Telephone Company of the West	$2,099,544	$2,166,256
WYOMING TOTAL	$40,243,668	$41,441,068

h. The Status of Compliance with the Act

The Wyoming Act encourages the transition to competition in Wyoming telecommunications markets and seeks to eliminate implicit subsidies built into local rates. In Wyoming and throughout the entire nation, low residential rates were supported by subsidies implicitly paid by other services. Under the Act, subsidies for high-cost customers are made explicit through the use of the Wyoming Universal Service Fund. The Act's stated intent is also "to maintain affordable essential telecommunications services through the transition . . ." to competition.

Each service must pay its own way under the Wyoming Act. If a local telephone company offers noncompetitive services, each of its services must be priced so that the revenue from each service covers the service's total service long run incremental cost (TSLRIC). This is intended to encourage local service competition by preventing existing companies from subsidizing local service rates with money from other services. That, in theory, allows competitors to enter a local service market and compete on level ground.

The Act requires local exchange companies to have TSLRIC-compliant prices by January 1, 2005. Qwest, Union Telephone, CenturyTel of Wyoming, Dubois Telephone, Range Telephone, RT Communications, Sprint/United, TCT West, Tri County Telephone, Teton Telecom, All West Communications, Silver Star Communications and Chugwater Telephone have made the transition. This means that 99.99% of Wyoming's access lines have approved TSLRIC-compliant rates in place. Project Telephone and Golden West Telephone serve mostly in other states and have, taken together, fewer than 300 customers in Wyoming. Both have been granted TSLRIC waivers through January 1, 2005, as allowed by the Act.

The first table below shows local business and residential basic service prices as they were just before the Wyoming Act was passed in 1995, and as of January 1, 2005. Because the Wyoming Universal Service Fund's 130% support threshold is now $31.67 per month, no customer's required payment for local service would be higher than that.

The table shows that residential and business rates of established telephone companies have increased significantly since 1995, except for the business rates of Qwest, RT Communications, Silver Star Communications and Teton Telecom. In most cases, higher prices for local exchange service have been partially offset by lower switched access and toll prices. Distance (how far the customer is from the central office) and density (expressed as the number of customers in a given area or per mile of line) are important cost factors independent of TSLRIC and other causes. This shows up clearly in the various base rates for local service when they are contrasted with the rates for customers of that company farthest from the base rate area (examples of de-averaging). Some companies do not de-average prices because of the geographic configuration of the areas involved or due to lending requirements of such institutions as the Rural Utilities Service.

Many factors influence the prices offered by each service provider in Wyoming, including considerations of whether to average or de-average prices, how to reflect distance-related costs, what technology to employ, and how to account fairly for customer density, loan requirements, billing administration and other costs. There are significant rate differences among Wyoming telecommunication companies and the reasons are identifiable. There is no

individual model or set of physical or regulatory conditions that would guarantee uniform prices among the incumbent local exchange service providers in Wyoming. Significant diversity exists among these service providers in a number of important areas which support rational variations in local exchange and switched access prices. Pricing methodologies -- TSLRIC, historic embedded cost, and others -- used by the Commission, allowed by law, and employed by the service provider, do not themselves cause the existence of or drive the magnitude of pricing differences between companies.

See table on next page.

Basic Local Residential and Business Telephone Service Rates

Company	Residential Rates			Business Rates		
	1995	1/1/2005	change	1995	1/1/2005	change
Qwest						
base rate area:	$14.64	$23.10	58%	$30.56	$23.10	(24%)
farthest from base area:	$24.54	$69.35*	183%	$41.46	$69.35*	67%
Union Telephone						
base rate area:	$8.49	$40.95*	382%	$13.69	$40.95*	199%
farthest from base area:	$26.49	$88.47*	234%	$31.69	$88.47*	179%
CenturyTel of Wyoming						
base rate area:	$10.00	$15.00	50%	$15.00	$15.00	0%
farthest from base area:	$17.50	$28.00	60%	$26.25	$28.00	7%
Dubois Telephone	$11.00	$19.25	75%	$19.55	$24.25	24%
Range Telephone	$11.65	$16.00	37%	$18.40	$19.00	3%
RT Communications						
Shoshoni & central WY exch:	$10.04	$16.00	59%	$19.66	$22.50	14%
farthest from base area:	$19.94	$25.90	30%	$29.56	$32.40*	10%
Thermopolis & Newcastle:	$10.78	$16.00	48%	$22.03	$22.50	2%
farthest from base area:	$20.68	$25.90	25%	$31.93	$32.40*	1%
Worland exchange:	$11.51	$16.00	39%	$24.42	$22.50	(8%)
farthest from base area:	$21.41	$25.90	21%	$34.32	$32.40*	(6%)
Pine Bluffs, Burns, Carpenter:	$12.98	$16.00	23%	$29.19	$22.50	(23%)
farthest from base area:	$22.88	$25.90	13%	$39.09	$32.40*	(17%)
Sprint/United						
Guernsey exchange:	$7.94	$36.22*	356%	$13.39	$36.22*	171%
LaGrange exchange:	$11.13	$91.36*	721%	$17.35	$91.36*	427%
Ingle exchange:	$11.13	$82.23*	639%	$24.63	$82.23*	234%
Torrington exchange:	$11.13	$27.48	147%	$24.63	$27.48	12%
TCT West						
Greybull exchange:	$10.14	$27.31	172%	$19.66	$27.31	39%
Lovell exchange:	$10.78	$30.63	184%	$22.03	$30.63	39%
Basin exchange:	$10.78	$31.42	191%	$22.03	$31.42	43%
Frannie & Meeteetse:	$10.78	$45.08*	318%	$22.03	$45.08*	105%
Tri County Telephone						
Burlington exchange:	$6.75	$44.86*	565%	$10.25	$44.86*	338%
all other exchanges:	$8.25	$45.08*	446%	$14.00	$45.08*	222%
Teton Telecom **	$29.65 **	$31.25	5%	$40.46 **	$31.25	(23%)
Silver Star Communications	$16.80	$24.50	46%	$25.20	$24.50	(3%)
Chugwater Telephone	$10.50	$38.20*	264%	$15.25	$38.20*	150%
All West Communications	$14.25	$59.52*	318%	$20.25	$59.52*	194%

* before applying credits for Wyoming and federal universal service fund support.
** Teton Telecom did not exist in 1995. Earlier prices shown are Eton's initial rates.

Switched access rates under the Wyoming Telecommunications Act of 1995

W.S. § 37-15-411 in the Wyoming Act requires the Commission to investigate the appropriate way to calculate intrastate switched access charges for all Wyoming telephone utilities and study the feasibility of "phasing out intrastate telecommunication subsidies flowing between telephone companies in Wyoming by January 1, 2002."

On December 27, 1995, the Commission, in its General Order No. 74 proceeding entitled *An Investigation into the Appropriate Method for Calculating Intrastate Switched Access Charges and Regarding the Feasibility of Eliminating Intercompany Subsidies Among Wyoming Telephone Companies*, held public workshops to obtain information from industry and others to develop proposed rules on switched access service pricing. This generated much controversy; and, in 1999, the Commission determined it lacked the statutory authority to implement rules on the subject. The Commission decided that switched access service pricing should be handled on a case-by-case basis. Since then, switched access prices have changed principally in ILEC pricing cases which also concerned adjustments in local service rates to comply with the Wyoming Act's TSLRIC mandate. Now, more than 99.99% of all subscriber lines in Wyoming are subject to TSLRIC-compliant switched access service prices. Generally, switched access rates were reduced substantially as local business and residential rates increased to cover their own TSLRIC costs, reversing a long-standing pricing policy, prevalent throughout the United States that access and toll prices should contribute to keeping the cost of basic local service low. Below is a table illustrating the changes in switched access prices in Wyoming between the advent of the Wyoming Act and the reporting year.

Switched Access and Intrastate Toll Rates

Company	Switched Access Rates (¢ per minute)			Intrastate Toll Rates (¢ per minute)		
	1995	2004	change	1995	2004	change
Qwest (U S WEST)	9.71¢	1.4698¢	(85%)	20.86¢	**	‡
Tri County Telephone	16.53¢	1.5445¢	(91%)	20.86¢*	**	‡
TCT West	9.71¢	1.5445¢	(84%)	20.86¢*	**	‡
Dubois Telephone	11.52¢	11.470¢	(0.4%)	20.86¢*	**	‡
Union Telephone	10.60¢	3.2500¢	(69%)	20.86¢*	**	‡
Sprint/United	10.33¢	0.4571¢	(96%)	20.86¢*	**	‡
RT Communications	9.71¢	7.5000¢	(23%)	20.86¢*	**	‡
Range Telephone	9.08¢	7.2610¢	(20%)	20.86¢*	**	‡
CenturyTel	6.60¢	3.1369¢	(52%)	20.86¢*	**	‡
All West Communications	14.78¢	1.50¢	(90%)	20.86¢*	**	‡
Chugwater Telephone	8.99¢	4.635¢	(48%)	20.86¢*	**	‡
Silver Star Communications	9.71¢	6.37¢	(34%)	20.86¢*	**	‡
Teton Telecom***	6.59¢	6.37¢	(3%)	n/a	**	n/a

* In 1995, Qwest (then U S WEST) was the designated toll carrier in Wyoming.

** There are multiple calling plans available from approximately 100 active interexchange telecommunications carriers registered at the Commission to provide long distance service through the implementation of equal access with all of the incumbent local exchange service providers in Wyoming. Prices vary from approximately 5¢ to 7.5 ¢ per minute.

*** Did not exist in 1995. Initial Teton Telecom rates are shown.

‡ Intrastate toll prices have been reduced up to 70% from 1995 levels.

During 2004, the Commission conducted show cause hearings relating to noncompliance with Wyoming law by certain interexchange carriers authorized to provide long distance service and by certain CLECs authorized to provide local service in Wyoming. As a result of these proceedings, the Commission revoked the registrations and canceled the authority of a number of interexchange carriers and CLECs to provide service in Wyoming. Most commonly, these smaller companies failed to file uniform assessment reports with the Wyoming Department of Revenue or to file required annual reports with the Commission. The list of affected companies is found above in the 2004 Chronology section of the Report at November 3, and December 2, 2004. Public hearings were held on November 30, 2004.

i. Competitive Provision of Local Exchange Service

The Wyoming Act and the federal Act encourage the development of competition in local exchange service markets. Both Acts require the incumbent local exchange carriers to open their networks to competitors, to allow them to interconnect fairly with their networks and to offer services at wholesale prices suitable for resale.

By the end of the reporting period, the Commission had approved a total of 86 applications for concurrent certificates of public convenience and necessity to provide competitive local exchange service in Wyoming. Most of these companies are authorized to provide competitive local exchange service in those Wyoming exchanges served by Qwest under W.S. § 37-1-201(b). Several companies have also been authorized to provide service in the Wyoming exchanges served by Sprint/United Telephone Company of the West and the other incumbent local exchange companies serving in the state.

Among these companies, McLeodUSA is active in 19 Wyoming local exchange service markets. Silver Star offers direct facilities-based competitive local service in Afton and private line/special access services (T-1) in the Jackson exchange. Silver Star is preparing to provide a full range of local services in the Jackson exchange. All West now offers competitive local exchange service in the Evanston area. Advanced Communications Technology (ACT) offers facilities-based competitive local service in Sheridan. MCI offers its Neighborhood local exchange service plan in all Qwest exchanges in Wyoming. AT&T, under an approved interconnection agreement with Qwest, offers competitive Outbound ADL business services. Other companies are in various stages of advertising and serving, or otherwise preparing to do so. They are:

Name	Certificate Date
AT&T Communications of the Mountain States, Inc.	August 16, 1996
Sprint Communications Company	August 28, 1996
Excel Telecommunications	November 25, 1996
Ionex Communications North	March 17, 1997
McLeodUSA Telecommunications Services	April 14, 1997
Contact Communications	April 24, 1997
MCIMETRO Access Transmission Services/MCIMETRO	April 29, 1997
Tel-Save d/b/a The Phone Company	July 1, 1997
Preferred Carrier Services	August 20, 1997
~~Atlas Communications~~*	~~September 2, 1997~~
~~LCI International Telecom~~	~~November 13, 1997~~
~~Group Long Distance~~	~~February 20, 1998~~
Sterling International Funding d/b/a Reconex a/k/a Amertel	March 17, 1998

Name	Certificate Date
Silver Star Communications (Afton)	March 17, 1998
~~LDM Systems~~	~~March 19,1998~~
Dial and Save of Wyoming	April 16, 1998
WorldCom Technologies	May 7, 1998
~~Western CLEC, formerly Eclipse Communications~~	~~January 21, 1999~~
Level 3 Communications	March 16, 1999
~~NET-tel~~	~~April 7, 1999~~
InTTec	August 17, 1999
DSLnet Communications	August 17, 1999
~~JATO Operating Two Corp.~~	~~August 23, 1999~~
Tri-Tel	September 30, 1999
New Edge Networks	November 30, 1999
All-West/Wyoming	December 20, 1999
MVX.com Communications	December 22, 1999
Concert Communications Sales	January 4, 2000
~~Adelphia Business Solutions Operations~~	~~January 20, 2000~~
Now Communications	January 20, 2000
Comm South Companies	February 3, 2000
CI²	February 3, 2000
Universal Access	April 13, 2000
~~Arrival Communications~~	~~April 18, 2000~~
HJN Telecom	April 25, 2000
~~Advanced Telcom Group~~	~~May 9, 2000~~
~~Maxcess~~	~~May 11, 2000~~
United Communications Hub	May 11, 2000
~~CCCWY d/b/a Connect!~~	~~May 25, 2000~~
~~Essential.com~~	~~August 18, 2000~~
360Networks (USA)	August 18, 2000
~~Global Telelink Services~~	~~August 24, 2000~~
~~Pathnet Telecommunications Services~~	~~September 7, 2000~~
~~Telera Communications~~	~~September 26, 2000~~
~~Pac-West Telecomm~~	~~September 28, 2000~~
Dieca Communications d/b/a Covad Communications	October 17, 2000
~~Fairpoint Communications Solutions~~	~~October 17, 2000~~
~~ServiSense.com~~	~~October 28, 2000~~
~~Essex Communications d/b/a eLEC Communications~~	~~November 7, 2000~~
Premiere Network Services	November 7, 2000
~~Telicor~~	~~February 22, 2001~~
Z-Tel Communications	April 13, 2001
Regal Telephone	May 3, 2001
NOS Communications	May 21, 2001
KMC Telecom V	July 3, 2001
~~Vitcom~~	~~September 18, 2001~~
New Access Communications	September 20, 2001
~~TeleCents Communications~~	~~October 30, 2001~~
Intrado Communications	November 1, 2001
~~NTERA~~	~~November 13, 2001~~
Vartec Telecom	December 6, 2001
KMC Data	January 17, 2002
~~Simply Cellular and Telephone Reconnections~~	~~February 7, 2002~~
Budget Phone	March 5, 2002
ICG Telecom Group	May 23, 2002
VP Telecom	July 15, 2002
Advanced Communications Technology	July 17, 2002
iLOKA	September 17, 2002
Qwest Communications Corporation	December 19, 2002
~~AltiComm~~*	~~February 13, 2003~~
~~Houlton Enterprises d/b/a Guaranteed Phone Service~~*	~~April 15, 2003~~
~~Wyoming Big Sky Telecom~~ *	~~May 6, 2003~~
VCI Company formerly Vilaire Communications	July 3, 2003

Name	Certificate Date
~~Globecom~~*	~~July 15, 2003~~
Covista	September 4, 2003
IDT America	September 4, 2003
XO Communications	October 30, 2003
Computer Network Technology	November 18, 2003
Granite Telecommunications	December 23, 2003
Southwestern Bell Communications Services	March 11, 2004
ACN Communication Services	April 13, 2004
WERCS Communications	April 13, 2004
Comtech21	April 29, 2004
Tel West Communications	July 15, 2004
CommPartners	August 26, 2004
Bullseye Telecom	November 8, 2004
Extreme Media	December 15, 2004

The companies whose names are stricken through either [i] filed for and were given approval to cancel their certificate authority or [ii] had their certificates revoked by the Commission for noncompliance with Wyoming law and Commission rules. The certificates of those with asterisks by their names were canceled or revoked during the reporting year.

You may obtain more information about these competitive local exchange service providers by contacting them at the addresses listed in Appendix B to this Report.

j. Interconnection and Resale of Local Exchange Service

In the Wyoming Act, W.S. § 37-15-404(d) requires telecommunications companies to "disclose in a timely and uniform manner information necessary for the design of equipment and services that will meet the specifications of interconnection; . . . ." Subsection (e) of this statute gives the Commission the power to make rules on, among other subjects, interconnection of networks at nondiscriminatory and reasonable rates, terms and conditions; for the unbundling of services into reasonable basic network features; and for the resale and sharing of services and functions at reasonable and nondiscriminatory rates. These provisions are mirrored by the federal Telecommunications Act of 1996 which, at § 251(a)(1), imposes a duty on telecommunications providers to interconnect with the facilities and equipment of other telecommunications carriers; and which, at § 251(c)(1), imposes a duty on incumbent local exchange carriers to negotiate interconnection agreements with a competitive carrier requesting one. If they cannot reach agreement, § 252 of the federal Act provides for the arbitration by state commissions of disputes regarding interconnection negotiations. One such proceeding, involving RT Communications, Range Telephone Cooperative and Western Wireless, was considered by the Commission during the reporting year. After the end of the reporting year, the parties successfully negotiated interconnection agreements.

By December 31, 2004, the Commission had approved 128 negotiated interconnection agreements for use in providing service in Wyoming under Section 252 of the federal Act, including 15 agreements approved during the reporting period. Negotiated Interconnection Agreements with Qwest Corporation and United Telephone Company of the West, d/b/a Sprint that have been filed for approval pursuant to Section 252 of the federal Act as of December 31, 2004, are listed below:

	with U S WEST Communications, Inc.:
1	MetaComm Cellular
2	CommNet Cellular
3	AirTouch Cellular
4	FirsTel
5	Western Wireless
6	Nextel West
7	Sprint Communications
8	Knight Communications
9	Comm South Companies
10	Dakota Services
11	Silver Star Communications
12	3 Rivers PCS
13	RT Communications
14	Sterling International Funding d/b/a Reconex a/k/a Ameritel
15	Preferred Carrier Services
16	NET-tel Corporation
17	Advanced Communications Group
18	Tel West Communications
19	WYOCOM (wyoming.com)
20	Topp Comm
21	Covad Communications
22	CCCWY d/b/a Connect!
23	Computer Business Sciences
24	AT&T Communications
25	NOW Communications
26	U S WEST Wireless
27	DSLnet Communications
28	New Edge Networks
29	INTTEC
30	JATO Communications
31	Pathnet Telecommunications
32	Essential.com
33	Healthcare Liability Management
34	HJN Telecom
35	All West/Wyoming
36	Telwest Communications

	with Qwest Corporation (f/k/a U S WEST Communications, Inc):
37	ServiSense.com
38	Newcom Wireless
39	Choctaw Communications d/b/a Smoke Signals Communications
40	Arch Paging and Mobile Communications
41	dPI-Teleconnect
42	WWC Holding
43	Pilgrim Telephone
44	Continental F.S. Communications
45	@Link Networks
46	Flatel
47	Premiere Communications
48	Simply Cellular and Telephone Reconnections

	with Qwest Corporation (f/k/a U S WEST Communications, Inc) (continued):
49	Regal Telephone
50	USA Digital 1
51	Telicor
52	Maxcess
53	McLeodUSA Telecommunications
54	Essex Communications d/b/a eLEC Communications
55	Multiband
56	Digital Communications
57	Contact Communications
58	Ciera Network Systems
59	Sprint Spectrum
60	New Access Communications
61	Z-Tel Communications
62	NOS Communications
63	Uintah Basin Electronics Telecommunications
64	CI²
65	Telephone Company of Central Florida
66	TW Wireless
67	Edge Wireless
68	Bridgeband Communications
69	Summit Wireless
70	VoiceStream Wireless
71	Vartec Telecom
72	Cellco Partnership d/b/a Verizon Wireless
73	Intrado Communications
74	Sprint Communications, L.P.
75	Premiere Network Services
76	Level 3 Communications
77	Qwest Wireless
78	Nextel West
79	NOW Communications
80	Excel Telecommunications
81	Ionex Communications North
82	Covad Communications
83	VP Telecom d/b/a OrbitCom
84	Advanced Communications Technology
85	Wavesent
86	Iloka d/b/a Microtech-Tel
87	Page Data
88	InTTec
89	Houlton Enterprises d/b/a Guaranteed Phone Service
90	AltiComm
91	Montana Advanced Information Network (MAIN)
92	MCIMetro Access Transmission Services
93	ICG Telecom Group
94	VCI
95	CAT Communications
96	IDT America
97	XO Network Services
98	Granite Telecommunications
99	ACN Communications Services

	with Qwest Corporation (f/k/a U S WEST Communications, Inc) (continued):
100	Comtech21
101	Qwest Communications Corporation
102	Southwestern Bell Communications
103	Multiband Communications
104	NorthStar Telecom
105	CommPartners
106	Union Telephone Company

	with Sprint/United Telephone Company of the West:
107	Dakota Services
108	U.S. Telco
109	Tin Can Communications
110	EZ Talk Communications
111	dPI-Teleconnect
112	Choctaw Communications d/b/a Smoke Signals Communications
113	Comm South Companies
114	Compass Communications
115	Pathnet Telecommunications
116	@Link Networks
117	Sprint PCS
118	1-800 Reconnex
119	USA Digital 1
120	Western Wireless
121	Verizon Wireless
122	Budget Phone
123	Preferred Carrier Services
124	Digital Communications
125	Direct2 Internet
126	AltiComm
127	XO Network Services
128	ACN Communications Services

In addition to these agreements themselves, Qwest and Sprint/United have continued the process of submitting for Commission approval numerous amendments to previously approved interconnection agreements.

k. The Federal Communications Commission's Triennial Review Order (the TRO)

On August 21, 2003, the FCC issued its *Report and Order on Remand and Further Notice of Proposed Rulemaking*, FCC 03-36, called the Triennial Review Order or TRO, in its Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability, being held in CC Dockets No. 01-338, 96-98, and 98-147.

1. The 90 day Proceeding. In the TRO, the FCC made a nationwide presumption that, under the federal Act, incumbent local exchange carriers would not be required to provide local circuit switching as a UNE to competitive local exchange carriers serving enterprise market

customers using high-capacity loops at transmission capacities of DS1 or higher. It also found that special circumstances could exist that would impair the development of competition if unbundled local circuit switching access was not available to enterprise customers in particular markets. The TRO provided a mechanism which state commissions could use to rebut this national presumption of non-impairment and require incumbent local exchange carriers to continue to offer this UNE if the state found that specific markets warranted continued provision of unbundled local circuit switching to competitive local exchange carriers serving enterprise market customers with high-capacity loops. The TRO required state commissions seeking a waiver to analyze operational and economic issues and file a waiver petition within 90 days of the effective date of the TRO. The Commission established Docket No. 90002-TF-03-1 and issued a Notice and Order to Wyoming telecommunications companies and others requesting petitions and comments and offering to consider holding a 90-day proceeding if an affected competitive local exchange carrier would come forward with evidence to rebut the FCC's national presumption. The Commission received no filings or hearing requests by the October 22, 2003, deadline: and the Commission closed this proceeding on December 18, 2003.

2. **The 9-Month Proceeding.** The TRO also established a nationwide presumption that competitors are impaired [a] on a customer-location specific basis without access to unbundled DS1, DS3, and dark fiber loops; [b] on a route-by-route basis without access to unbundled D1, DS3, and dark fiber dedicated transport; and [c] if they did not have access to unbundled local circuit switching when serving mass market customers. The FCC asked the state to consider other issues including whether or not to implement a "batch hot cut process" to address issues concerning the migration of customers between competitors in a competitive environment. The FCC delegated authority to state commissions to conduct a nine month process to develop additional facts and to make different findings based on the states' abilities to make more detailed impairment analyses of local conditions under the FCC's guidelines on actual deployment and specific economic and operational criteria. On October 22, 2003, the Commission established Docket No. 90002-TF-03-2, requesting petitions and comments on the subject and setting a pre-hearing conference for November 20, 2003. The stated subject of the proceeding was to determine whether Wyoming incumbent local exchange carriers must continue to provide competitive local exchange carriers with access to mass market high-capacity loops, mass market switching and dedicated transport.

Qwest, AT&T, MCI, Contact Communications, the Wyoming Telecommunications Council, Sprint, the independent Wyoming ILECs, and the Office of Consumer Advocate filed petitions to participate in this proceeding. Thereafter, Qwest moved to postpone the 9-Month Proceeding indefinitely, citing resource issues involving simultaneous proceedings in 14 states and uncertainty concerning whether Qwest's Wyoming operations would meet the FCC's "three switch" prerequisites for eliminating the unbundling obligation. Granting the motion would mean that Qwest would not seek relief now from its obligation to provide unbundled switching for mass market customers in Wyoming and remove Qwest's obligation to go forward with an individual Wyoming batch hot cut process determination. On December 18, 2003, the Commission granted the motion, terminating the 9-Month Proceeding but allowing later refiling. All participating Wyoming parties supported the decision.

Effective June 16, 2004, in the proceeding known as "USTA II", the United States Court of Appeals for the D.C. Circuit reversed and vacated certain portions of the Triennial Review Order – especially those relating to the ongoing unbundling obligations of incumbent local exchange carriers like Qwest. On September 13, 2004, the FCC, in its *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, issued Interim Rules relating to unbundled access to network elements. The USTA II Decision and the Interim Rules required the FCC to implement permanent, final rules regarding these unbundling obligations. On December 15, 2004, the FCC adopted final rules eliminating the requirement for competitive carriers to have unbundled access to mass-market local circuit switching of the incumbent carrier. The obligations for incumbent carriers to provide unbundled access to high capacity (DS1 and higher) loops and dedicated interoffice transport were reduced or eliminated. The transition period for these new loop, transport and switching rules is twelve months.

l. "1+" IntraLATA Equal Access

W.S. § 37-15-410, required local exchange companies to provide intraLATA "1+" equal access by January 1, 1998, "where technically and economically feasible." This dialing parity promotes competition in the in-state Wyoming long distance market by allowing a customer to preselect a carrier for in-state long distance calls which can be reached by dialing "1" plus the telephone number without the need to use "dial around" or other multi-digit alternatives to reach the chosen carrier and called party. "1+" equal access also applies to pay telephone providers. All of Wyoming's ILECs have implemented "1+" equal access.

m. Local Number Portability

Local number portability (LNP) gives subscribers the ability to keep their own telephone numbers regardless of which company provides local exchange service. This portability of local telephone numbers eliminates another barrier to local exchange competition. Appendix D shows that Qwest has fully implemented number portability in all of its Wyoming exchanges. Sprint/United has also implemented local number portability in its Wyoming exchanges. 47 CFR § 251(f)(2) requires independent local exchange carriers throughout the United States to implement local number portability during 2004. The Commission received and ruled on a number of requests for extensions or modifications of this requirement from various independent local exchange carriers in Wyoming. This table summarizes the results of these Commission rulings:

Company	LNP-capable by:
All West Communications	September 20, 2004
CenturyTel of Wyoming	April 13, 2004
Chugwater Telephone	November 20, 2006
Dubois Telephone	August 23, 2004
Project Telephone	March 1, 2005
Range Telephone	August 23, 2004
RT Communications	April 2005
Silver Star Communications and Teton Telecom	December 20, 2004
TCT West	May 24, 2004
Tri County Telephone	May 24, 2004
Union Telephone	May 24, 2004

n. The Effects of Wyoming Regulatory Policies and Practices on Telecommunications Companies, Services and Customers, and Improving the Regulatory Process

i. The Wyoming telecommunications market.

The Wyoming Act and the federal Act have had a profound effect on the development of the telecommunications industry in Wyoming. They have encouraged the development of competitive alternatives for business and residential. Competition and communications infrastructure development are increasing but it is not all being done by traditional service providers. Examples of this are the high speed data services being offered by Contact Communications in a number of smaller and larger Wyoming markets, the point-to-point communications services of Bresnan Communications offered using cable television infrastructure, the proliferation of digital cellular service throughout the state, and the SWEETNET local infrastructure project (discussed below).

Section 2 of this Report contains information on Wyoming's local and long distance telecommunications service suppliers and the increasing number of interconnection agreements allowing for (but not always guaranteeing the provision of) competitive local exchange service. Telecommunications subscribers in Wyoming have a choice of multiple in-state long distance service providers and many also have choices of local service providers. Economic developments in the telecommunications industry in Wyoming and throughout the United States have resulted in many reorganizations, business failures and mergers among companies -- especially those who find it difficult to survive in the smaller and more challenging markets. This market winnowing is not an effect of the Wyoming Act which has encouraged more companies to come to Wyoming to provide service. As with the rest of the United States, the development of Wyoming's telecommunications markets and the offering of newer, more technology-intensive services depends largely on economic forces which factor in the cost of the service, the demand and the willingness of the market to support the new services.

The TSLRIC pricing floor in the Wyoming Act is designed to encourage entry by facilities-based competitors into Wyoming's local exchange service markets by streamlining regulation, removing implicit subsidies from rates and replacing them with explicit subsidies (i.e., the Wyoming Universal Service Fund) designed to increase the affordability of service among the highest cost customers. The Act seeks to level the playing field among existing companies and new market entrants. It has clearly identified the fact that it is relatively expensive to serve the small and widely separated Wyoming markets. As companies came into compliance with the TSLRIC provisions of the Act, more competition developed, although the level of competition is not universal in the state.

The attendant rise in prices for local exchange service and the substantial drop in cellular service prices have caused the migration of some customers from traditional land line service to cellular telephones as their main source of local telecommunications service. We expect the trend to continue and believe that data which the FCC states it will soon begin to collect on such alternative modes of subscribership will show this to be the case.

Certain wireless services qualify for support by the federal and Wyoming universal service funds. The Wyoming Act was amended in 2001 to allow the Wyoming Universal Service Fund to support wireless carriers for services which function as a surrogate for traditional landline service. (See W.S. § 37-15-502, which extends Wyoming universal service fund eligibility and distribution to carriers using wireless technology to provide "supported services" which are the wireless equivalent of landline service and are *not* the same as the highly mobile cellular service more commonly found in Wyoming and elsewhere throughout the United States.)

ii. Better regulatory procedures.

The Commission has streamlined the approval process for certification of local exchange competitors, for registering new interexchange carriers, and for approval of interconnection agreements and amendments. The Commission has implemented an on-line electronic filing system which provides an efficient, rapid and less expensive way for local exchange service providers and interexchange companies to file annual reports. This system allows for quick and efficient analysis of annual report data. [See the report forms at http://psc.state.wy.us/htdocs/arforms.html] To assist potential competitors to comply with the Wyoming Telecommunications Act of 1995 and get a start in Wyoming, we have developed information packages to help them through the registration and certification processes more quickly and at a lower cost. Since the Commission assumed direct responsibility for managing the Wyoming Universal Service Fund in 2003, the reporting by and communication with telecommunications companies has improved. The Commission has implemented an on-line electronic system for the forms and reports associated with the Wyoming Universal Service Fund. [Find out more about the Wyoming Universal Service Fund on line at http://psc.state.wy.us/wyusf.htm]

iii. Local services subject to competition.

In the Wyoming Act, W.S. § 37-15-202(a) provides a mechanism whereby the services of a telecommunications company may be found to be subject to effective competition and therefore no longer subject to price regulation by the Commission. This section states:

> "(a) Upon petition by any telecommunications company, the commission may, after notice and opportunity for hearing, find and conclude that a telecommunications service is subject to competition. Any service found to be effectively competitive shall not be subject to regulation of prices by the commission. The commission shall consider only the following factors in determining whether a telecommunications service is subject to effective competition:
>
> "(i) The extent to which the same or equivalent telecommunications services are available from alternative providers in the relevant market;
>
> "(ii) The extent to which telecommunications services of alternative providers are functionally equivalent or may be substituted at comparable prices, terms and conditions;
>
> "(iii) Existing economic, regulatory or technological barriers to entry."

During the reporting year, the Commission ruled on Section 202 applications by Qwest and Chugwater Telephone Company.

1. Qwest applied with respect to its basic local exchange service provided in the Afton exchange, excluding its intrastate switched access service in the Afton exchange from this application. On May 24, 2004, the Commission ruled that Qwest's local exchange service in the Afton exchange is subject to effective competition. On August 4, 2004, Silver Star Communications, Qwest's facilities-based local exchange service competitor in the Afton exchange, filed a Petition for Hearing, challenging this determination. [Docket No. 70000-TA-99-505] Because of the nature of its issues, Silver Star was invited to have its objections heard in Qwest's TSLRIC study case [Docket No. 70000-TA-04-1045]. Silver Star intervened in this case and stated its request for relief. This matter has been set for hearing by the Commission. (Silver Star's petition to have its service in the Afton exchange found subject to competition was previously granted by the Commission.)

2. In November 2003, Chugwater Telephone Company filed an application requesting a determination by the Commission that its basic local exchange and switched access services are subject to competition. On November 20, 2004, the Commission accepted and approved a Stipulation between Chugwater Telephone and the Wyoming Office of Consumer Advocate providing Chugwater with "Limited Temporary §202 Status." The terms of the Stipulation included, among other items, the following conditions:

a. Chugwater may reduce any of its rates.

b. Pricing flexibility for local service, switched access, interconnection, transport and termination and other wholesale services and elements is limited to reductions.

c No currently provided service shall be discontinued, except for termination for nonpayment of bills, or violation of tariffs, service regulations or Wyoming statutes.

d. Price change tariffs must be prefiled for Commission review before implementation to ensure compliance with the Stipulation.

e. No other aspect of the Commission's regulatory oversight of Chugwater is changed.

The Stipulation expires on November 20, 2006, at which time the Commission will make a full evaluation of the market conditions in the Chugwater exchange. [Docket No. 70005-TA-03-19]

iv. Experimental e-filing program.

In 2002, the Commission began an experimental program for accepting and processing routine applications in electronic format with the goal of obtaining practical experience and information about the advantages of electronic filings. The program continues to be conducted with Qwest because it files a sufficient number of routine applications each year which are well suited to this experimental program.

The program started with accepting applications of ten pages or less concerning [i] promotional offerings (10 day notice); [ii] competitive offerings (1 day notice); [iii] routine

amendments to interconnection agreements (90 day notice); and [iv] other less complicated applications. Today this program includes acceptance of all applications filed by Qwest.

Electronic applications include backup "mirror image" documentation, i.e., in PDF and Word formats. PDF files cannot be edited (preserving the original application materials) and Word files allow the Commission to use portions of the application for notices and memos (allowing for more efficient processing). E-filed confidential material is given "confidential" watermarks that are readable on-screen and when printed. E-filing applications are printed and distributed to the Commissioners and staff. When the application is processed by the Commission, orders, letters and tariffs issued by the Commission are returned to Qwest by mail. The Commission maintains required paper docket file copies.

The e-filing experiment is still under way. In 2003, Qwest e-filed 24 applications and through December 2004, Qwest had e-filed 22 applications. In June 2004, Commission staff met with Qwest representatives to evaluate the electronic filing process. It is an administrative advantage for Qwest to be able to file documents electronically. As Qwest has reorganized, e-filing has helped because filings can come to the Commission electronically from multiple locations depending on the type of product line involved. The administrative disadvantage for Commission staff is that the process of implementing a fully electronic filing process became more time consuming and generated more paper. Our staff continues to receive electronic filings from Qwest, and the filings are treated as normal filings and handled in the traditional paper format. The Commission will continue this program with Qwest and evaluate the advisability of expanding it to include other utilities.

v. A note about cellular telecommunications.

We do not regulate the service offerings of cellular providers, except for the possible arbitration of controversies such as the interconnection agreements between Western Wireless and RT Communications and Range Telephone Cooperative noted above in the 2004 chronology. Detailed statistics are therefore not routinely available to us. However, we have seen Wyoming cellular markets expanding vigorously, with the number of cellular subscribers approaching the number of landline subscribers. Wyoming consumers continue to find more cellular service offerings, including packages, routinely and widely available to them. Cellular competition remains vigorous and PCS and digital wireless service is more prevalent in Wyoming markets. See Appendix C to this Report for a listing of cellular and PCS providers in Wyoming.

o. Telecommunications Slamming, Complaints, and Related Matters

i. Slamming. The practice of changing a telephone customer's long distance or local carrier without the customer's knowledge or authorization is called slamming. During the reporting year, it accounted for approximately 4% of the complaints received by the Commission; and it is a consumer problem which has developed in the increasingly competitive telecommunications marketplace. This percentage is higher than that for the previous reporting period, but much less than the 11% rate experienced in 1999. Wyoming's slamming and cramming law, W.S. § 37-15-412, appears to be a helpful and continuing deterrent to the growth

of in-state slamming, as this statistic shows. We continue to emphasize rapid correction of consumer slamming complaints and to discuss emerging slamming problems with service providers.

Our Complaint Section continues to see an increase in *supposed* slamming complaints. As long-distance companies merge, customer bills will often display the name of a merged company or the name of the long distance company's billing agent which are generally not familiar to the customer. Unfortunately, there is often no explanation on the bill; and customer service personnel are frequently unable to answer questions about this problem. Consumers therefore erroneously believe that they have been slammed. Similarly, changes of company names also occur when customers change local exchange service companies and the change orders are not submitted correctly. Customers may have the correct local and long distance carrier on their bills; but, within 30 days thereafter, they are switched to a different company due to local or long distance company errors relating to mergers or bankruptcies. Because our slamming law views habitual "slammers" with disfavor, we document slamming incidents carefully to determine whether companies operating in Wyoming are using slamming as a "business practice." Wyoming's slamming law equips the Commission with important tools for dealing with the practice and moving to end it.

Because most slamming occurs with respect to interstate long distance service, jurisdiction, in most cases, lies with the FCC. As most other states have done, Wyoming confirmed for the FCC that it would take over primary responsibility for resolving both intrastate and interstate slamming complaints lodged by Wyoming consumers. The process, known as "Opting-In," allows Wyoming to act as the primary forum for all slamming complaints arising in the state. This shortens the lines of communications, allowing interstate problems of Wyoming consumers to be addressed more efficiently.

The Commission and its complaint section will help Wyoming customers experiencing either state or federal level problems to obtain information and to resolve slamming problems effectively and rapidly. The Commission's brochure on the subject, *Telephone Slamming: You don't have to be a victim!*, is available free of charge.

ii. Telecommunications complaints. The overall number of utility complaints received by the Commission decreased from 1,416 in 2003 to 1,141 in 2004. The following table, containing a percentage breakdown of the complaints received by the Commission during the reporting year, places the volume of telecommunications complaints into perspective:

Year	Water	Gas	Electric	Local Telecommunications	Long Distance Telecommunications
2002	1%	17%	10%	44%	28%
2003	1%	24%	12%	39%	24%
2004	1%	27%	19%	35%	18%

Although we see a substantial number of telecommunications complaints stemming from competitive telecommunications markets, many complaints still concern more "traditional" subjects such as service quality, support for advanced services, availability (or not) of service enhancements, billing errors and disagreements, and misunderstanding of the various charges

appearing on bills. In July 2004, the federal Subscriber Line Charge was again increased. This generated an increase in customer calls to the Commission regarding increased billing charges for subscribers of many of Wyoming's larger carriers. We and our Complaint Staff were pleased to see that so many customers were aware of billing changes and had the desire to understand the reasons for the changes.

iii. Some persistent problem areas.

- Our Complaint Section still experiences significant increases in complaints where telephone companies have misquoted the cost of services to customers and have generally given them incorrect information. The misquotes are most generally significant in dollar amount and create billing errors in addition to the misinformation.
- The response time of local exchange companies and long distance companies to Commission investigations of consumer complaints has been poor, with most companies no longer responding within five working days. Some simply do not respond adequately if at all, necessitating follow up e-mails and telephone calls to companies to resolve complaints.
- Local number portability in Wyoming has helped to decrease problems experienced by consumers in changing from one service provider to another. Companies must work together to release a customer's line and ensure that it is working properly with the newly chosen service provider. Although procedures for requesting and implementing carrier changes appear to be working, some problems persist; and complaints in this area have increased. Many of the complaints involve changes from one local service provider to another.

iv. Information requests. In addition to the complaints received during the reporting year, we have also received 45 information requests from customers which were not formal complaints. Most often these questions concern the need for additional and higher speed service, price and service charges, customer deposits, the Do Not Call List (a very popular subject), extended area service, line extensions and rate increases. Customers are still very interested in the details of the taxes, fees, surcharges and distance charges appearing on their telephone bills. The Commission continues to see more customers who do not understand distance charges and who are unable to get clear answers from telephone companies. Customers often want charges verified and seek regulatory and legislative ways to eliminate them. The public continues to show an interest in understanding the telecommunications industry and regulation.

v. Speeding up the process. Despite our occasional difficulties in locating some complained-of interexchange telecommunications service providers, the number of unresolved complaints carried over each month has decreased to an average of 79 -- an 8% decrease over 2003 levels and the second year of declining carryovers.

vi. Toll free assistance. Since 1998, the Commission has maintained an 888 toll-free number for use by Wyoming consumers in bringing complaints to the attention of the Commission.

vii. Confidentiality. As always, customers bringing complaints to the Commission can be assured that the facts of their individual situations will be treated confidentially.

p. Recommendations for Legislative Change

The telecommunications industry in Wyoming is increasingly competitive and technologically dynamic, and the Wyoming Telecommunications Act of 1995 therefore must be regarded as a living document. In 2004, the Joint Corporations, Elections and Political Subdivisions Interim Committee created a Telecommunications USF Study Subcommittee to conduct an interim study of the Wyoming Universal Service Fund under Section 324 of the 2004 Budget Bill (HEA 77) which provided $75,000 for a study of "the current state telecommunications universal service fund, the effects of changing the current fund from a price-based fund to a cost-based fund, implications and desirability of supporting only a single line for each business and residential customer receiving support through the fund, the universal service fund subsidy level and the fund's appropriate structure." The Subcommittee's consultants, QSI Consulting, conducted the study and issued their report in December 2004. This *Report to the Wyoming Legislature on the Wyoming Universal Service Fund* recommended that the Legislature consider directing the Commission to open a proceeding to examine changing from a price-based to a cost-based fund. QSI also recommended that the Legislature consider an additional study to examine new and developing technology in the telecommunications industry and how they might address Wyoming's universal service objectives. Read QSI's *Report* on line at:
http://legisweb.state.wy.us/2004/interim/corp/MEETINGS/Final%20Report%20To%20Legislature%2011-30-04.pdf

In addition, the Joint Corporations, Elections and Political Subdivisions Interim Committee stated that it ". . . has been presented with a variety of issues and testimony regarding telecommunications in Wyoming. Among these issues are possible changes in the universal service fund, a study of the use of broadband technology across Wyoming and deregulation of local access services." The Committee said it would examine these issues. The Commission supports this comprehensive and deliberative approach to changing how telecommunications is regulated in Wyoming. The Commission and members of its staff have assisted the Legislature and the Legislative Service Office in the past and are prepared to assist in the future.

The Wyoming Telecommunications Act of 1995 will be ten years old in 2005. It has prompted fundamental changes in the Wyoming telecommunications industry and has not been substantially altered in those ten years. A thorough re-examination is due. We believe the Act must fairly address new technological and business developments in the Wyoming telecommunications market and do so in a timely manner. This examination must take into account the realities of the communications market and its daily impact on the lives of citizens and the economy of the state. Because telecommunications remains a necessity for individuals and businesses, however, we also believe changes in the Act must be carefully thought out so that the interests of Wyoming's consumers are served. For example, service providers have begun to see some competition from newer communications technologies which have developed in a business environment which does not emphasize the public interest as traditional telecommunications companies do. Enhanced 911 emergency service, and even basic 911 service, are thus not considered a responsibility by some companies, but simply a "choice" for the service provider to make. We must balance the competitive evolution of the market and the interests of old and new competitors with the interests of the people and businesses of Wyoming. For this re-examination to succeed, it must bring together service providers, regulators, law makers and other policy makers, large and small customers and technology experts.

SECTION 2
THE TELECOMMUNICATIONS INDUSTRY IN WYOMING

a. Introduction

This section of the Report provides a general description of the telecommunications industry in Wyoming, the technology employed, the general availability of various services and a look ahead at developing technologies likely to be deployed in the future. This section should be read in conjunction with Appendix D, which contains detailed exchange-by-exchange information on the telecommunications technology deployed, the nature of the interoffice plant in service and the specific services which are generally available in the various exchanges. **Services and technology which are new in the reporting year are highlighted in boldface type in Appendix D.** Telecommunications companies have been steadily increasing the availability of improved services and the number of new services not previously available is relatively small. Questions about the availability of specific services in particular places within exchanges and the nature of existing but unused local telecommunications plant capacity should be directed to the telecommunications service providers themselves. Most service providers consider information on unused capacity and its location highly confidential and commercially sensitive.

b. Number, Type and Size of Companies

There are 14 incumbent facilities-based local telephone companies (ILECs) providing local exchange service in Wyoming. There are approximately 307,130 access lines in service in the state at this time, a decrease of 11,520 or about 3.6% fewer than in calendar year 2003. Qwest Corporation, Wyoming's predominant ILEC, provides service to approximately 255,442 of the state's access lines. The remaining access lines are served by the 13 independent local telephone companies. CLECs serve approximately 25,876 access lines in Wyoming. Appendix A to this Report contains a brief summary of the basic facts about Wyoming ILECs, and Appendix K provides a map of the certificated territories of Wyoming's ILECs, produced by the Commission's Geographical Information System.

When the Wyoming Telecommunications Act of 1995 went into effect on March 1, 1995, there were 24 interexchange (long distance or toll service) resellers and nine facilities-based interexchange carriers providing long distance service in Wyoming. Before the Wyoming Telecommunications Act of 1995, there were no CLECs in the state; but now there are 59 (an increase of three from the previous reporting year) as shown in Appendix B to this Report. Because the interexchange resale market is dynamic and characterized by new entrants, acquisitions, mergers, bankruptcies and business reorganizations, you may find current information about these companies participating in the Wyoming market at the Commission's web site. [http://psc.state.wy.us]

"Facilities-based" telecommunications companies own or lease physical *facilities* to acquire, switch, enhance, transport, or terminate traffic on their own systems, while "resellers" purchase or lease *services* from facilities-based providers to acquire, switch, enhance, transport,

or terminate traffic. Facilities-based carriers do not necessarily carry all of their traffic over their own facilities and may purchase or lease facilities of others to help furnish the needed services.

By December 31, 2004, the combined number of facilities-based companies and resellers serving as interexchange carriers in Wyoming has increased by about 1,200% since 1995, including the registration of 15 new interexchange carriers during the reporting year. By the end of the reporting year, 86 CLECs had been certified to provide local telephone service in those Wyoming exchanges served by Qwest Corporation, although some of these carriers are, because of the highly competitive nature of the market, no longer in business. Widespread local service competition has yet to develop throughout all of the relevant exchanges.

The exchanges served by Wyoming's ILECs are listed in Appendix A to this Report. (Note that the restrictions formerly imposed by W.S. § 37-15-201(c), limiting immediate competitive entry into the local exchange markets of incumbent companies with fewer than 30,000 access lines in Wyoming, have been preempted by the Federal Communications Commission and affirmed by the United States Court of Appeals for the Tenth Circuit.) Appendix B to this Report identifies those CLECs which have been certificated to provide competitive service in Wyoming.

With respect to long distance telecommunications services, Wyoming customers have a wide selection of carriers and choices of many differing terms, conditions and prices which have been brought about by the functioning of the competitive market. Resale of services is an easy and rapid way to enter into local market competition, but it does not always provide an attractive return to the competitor. Facilities-based local competition, seen by many as the more stable and long term competitive option (and the one offering the most possibilities for technological advancement), requires substantial expenditures for the facilities needed to provide competitive local service. Further, the capital markets have an impact on the ability of facilities-based competitive local exchange carriers to obtain the funds needed to construct networks and other facilities. Although some smaller competitors do not have the financial capabilities for this type of market entrance, the successful entry of Silver Star Communications into direct facilities-based local service competition with Qwest in the Afton exchange shows that it is possible to be technologically advanced and successful in such a competitive endeavor in Wyoming -- even in a relatively small market.

c. Technologies in Use and Under Development

1. Technology Trends. Deployment of new technology that leverages the capabilities of existing infrastructure offers opportunities to improve the availability of broadband to Wyoming residents, businesses and institutions. Technical developments such as digital subscriber line (DSL), cable modem, Voice over Internet Protocol (VoIP) and broadband over power lines (BPL) use and enhance the abilities of existing copper, fiber, and power lines, offering the opportunity for citizens of Wyoming to expand their use of new technologies throughout the state. Additionally, wireless communications technologies (cellular, PCS, CMRS) are giving citizens new mobility. Cable systems have the capability to deliver voice, data, Internet and video via cable modem.

Not to be forgotten is satellite technology, which delivers video programming and a limited offering of broadband services, offering advanced functionality to customers who might be geographically isolated from other technologies. Rural electric cooperatives like Carbon Power & Light now offer satellite service. In March 2005, it will participate in the trial of Wild Blue, a new and more technologically advanced satellite service capable of providing television programming, Internet service, and eventually VoIP. This service is targeted at consumers in rural areas which characterize rural electric cooperative service territories in Wyoming.

Local telephone service providers are assessing the use of different technologies and evaluating next-generation technology for upgrading central office switching capability. Today, switching capabilities are dominated by circuit-type switching. Next generation technology, often referred to as "soft switch", is software driven. Soft switch technology costs less and has the ability to offer broadband services to all customers over existing copper lines or a combination of copper and fiber facilities. It is relatively easy to upgrade at a lower cost than prior switching technologies.

2. Infrastructure. Wyoming entered 2004 with significant upgrades to the telecommunications infrastructure and system; and companies were deploying broadband services throughout the state. This took the form of digital subscriber line (DSL) and the completion of the fiber optic backbone linking the communities of Cheyenne, Lusk, Wheatland, Glenrock, Casper, Wright City, Gillette, Moorcroft, Sheridan, Buffalo, Basin, Powell, Jackson, Kemmerer, Evanston, Afton, Green River, Rock Springs, Rawlins, and Laramie. A digital microwave radio link was deployed between Jackson and Riverton.

Wyoming's fiber optic backbone facilities, which provide enhanced voice, data and video capability, are having social and economic impacts comparable to those coming from the improvement the construction of interstate highways had on Wyoming's highway network. This backbone provides Wyoming's citizens and telecommunications service providers with many more options to deploy voice, data and video products as stand alone or bundled services for residents, businesses and institutions within the state. It provides Wyoming with its all-important link to the broadband networks of the national carriers and Internet service providers. Now Wyoming's local telephone companies, both large and small, have the ability to link their customers to the nation and the world economies which increasingly depend on efficient and rapid information services dominated by data transfer rather than the traditional voice-grade service.

Over the last four years, there have been cooperative efforts among the incumbent telephone companies to improve the state's telecommunications infrastructure. This approach resulted in a more rapid and more economical deployment and construction of the fiber network. Exchange areas throughout the state benefited from this effort. In 2004-2005, the final leg of the project will be complete and tie together exchanges in Dubois, Riverton and Shoshoni when fiber replaces digital microwave technology. This will improve the economic capabilities of the state, its businesses and its citizens.

The southern tier of the state is crossed by significant fiber facilities owned by Sprint, AT&T, Level 3, MCI, and 360 Networks. In the north central area of the state, regional companies such as Touch America and ACT have constructed fiber facilities.

3. Digital Subscriber Line (DSL). Digital Subscriber Line service is the transmission of digital frequencies over existing copper wire above traditional voice grade service frequencies. It is considered one of the best investments to extend the life and usefulness of copper facilities that characterize the great majority of the local telecommunications plant in Wyoming (that portion of the network between the central office and the customer's premises). DSL takes advantage of the fact that voice grade service uses only a small portion of the available capacity of copper loops.

The most dominant form of DSL is asynchronous DSL (aDSL). It offers higher download speeds than upload speeds on the premise that the most efficient use of available bandwidth is to offer the subscriber the enhanced ability to download rapidly. Higher speeds are available but have service limitations. The higher the speed, the shorter the distance from the central office the residence or business must be to obtain higher speed services like full motion video. Technology enhancements and local exchange carrier upgrades to existing copper plant have increased the availability of DSL services to rural areas.

Most local telephone companies offer DSL service in Wyoming. As a result of this technology, more rural customers located farther from the local central office are getting the potential of receiving broadband services to access the Internet and get Internet Protocol (IP) video. Local exchange service providers are striving to provide this service with one provider (TCT West) reporting that 96% of its customers have access to the service. Additionally, it is a medium over which information services and VoIP can be delivered to residences, businesses, schools, libraries, hospitals and institutions of government in rural areas that have low population densities. This does not mean that every residence and business in the state can be served by DSL. Other technologies such as wireless and satellite should also to be considered.

As with all technologies, DSL faces technical issues; and, with DSL, the major issue is noise interference, which is sometimes referred to as "cross talk" from one line to another. Some also believe that copper loops, and therefore DSL technology, may one day be replaced by fiber to the home. In the past, such technological migrations have been slowed by the substantial cost of replacing local telecommunications plant.

4. Voice Over Internet Protocol (VoIP). Voice over Internet Protocol is growing in popularity and is considered by many to be the technology voice communications services will likely use in the future. It is viewed as an alternative to the circuit switched technology now employed by traditional telephone companies. Rather than streaming voice signals over dedicated circuits as switched technology does now, VoIP converts a voice call to Internet Protocol, which is the framing of digital signals into packets that are sent over the Internet. Voice, data and video signals are broken into multiple packets that can take different routes through the network. At the final destination, the packets are re-assembled and delivered as one information stream to the receiving party. VoIP is viewed as an inherent competitor to traditional circuit switching technology because it uses the network more efficiently and cheaply.

To date, the primary application has been voice service over long distance networks. However, data transmission and access to information sources are beginning to characterize the deployment of this new technology.

Major deployments of VoIP have been done by established long distance service providers and competing companies. Additionally, local telephone exchange companies are enhancing their facilities to offer VoIP services.

This new technology is not without its limitations or problems. To take advantage of VoIP, one needs a broadband connection to the residence or business. The last mile of connection to the home or business from the incumbent local service provider (the loop connecting the local switch to the customer) is required for the service. This most often must be a digital connection over existing copper wire that takes advantage of frequencies above those needed for voice grade services. Some technical issues about service quality and access to 911 are being addressed at this time. Some VoIP proponents do not believe their services should be required to support either basic 911 emergency service or, more particularly, Enhanced 911 which provides information about the physical location of the emergency. The matter is not yet settled.

5. **Broadband Over Power Lines (BPL).** Broadband Over Power Lines is the delivery of broadband Internet signals using electrical wiring to bring high-speed digital signals to homes and businesses. It is a system designed to deliver Internet services using medium voltage power lines as the distribution medium. We know of no trials or deployments in Wyoming during the reporting year; and the technology is still in the early stages of development in other areas of the country. Trials have been conducted in individual buildings and limited geographical areas. The technology is still in its infancy and it still poses technical and operational issues which need to be addressed. BPL has an interesting potential for use in rural areas. While there have been announcements of commercial deployment in other areas of the country, the potential of BPL to support services such as Internet access, VOIP, meter reading and power monitoring has yet to be realized.

6. **Wireless Services (Cellular).** Citizens of Wyoming are increasingly using wireless telephones as a means of communication, and wireless telephone usage in Wyoming now comes very close to equaling wireline usage. The latest data available from the Federal Communications Commission shows that, as of June 2004, there were approximately 277,658 cellular subscribers in Wyoming and approximately 319,000 ILEC and CLEC access lines in service in the same period. The number of cell phone users has increased dramatically in recent years.

Initially, cell phones were considered complementary to traditional wireline telephone service provided over copper lines; however, now it is estimated that about 6% of telecommunications is conducted exclusively over cellular telephones. Some estimate that this trend will grow at a rate of 1% to 1.5% per year. Because of the packaging of services by wireless providers, free or low cost long distance service is routinely available to cellular customers, encouraging, according to FCC estimates, about 40% of all long distance minutes of

use to involve cell phones. This has dramatically reduced the dependence on traditional landlines for long distance calling.

Wireless has its limitations. The most common are system capacity and distance from cell sites. Another limitation is E911 capability, although this is rapidly being overcome. An individual placing an E911 call on a cell phone does not have a permanent address location tied to the cell phone as would be the case with traditional wireline phone service. However, cell phones now must be "chipped" with the ability to provide GPS location information to local PSAPs (Public Service Answering Points). The cost of deploying E911 capabilities in PSAPs has slowed the wider use of this functionality. Technical limitations keep cellular telephone from being a significant force in the broadband market.

7. **Cable Modem.** Cable modem is the delivery of broadband over cable television lines. It provides the cable subscriber with the opportunity to use the cable connection for Internet access and VoIP. Using existing cable lines, individuals can get packages of video on demand, informational and voice services. While video services and information services are available in Wyoming, VoIP services have not yet been offered but the technical capability is available. According to the Cellular Telecommunications & Internet Association (CTIA), in January 2004, there were an estimated 195,370 TV households in Wyoming. CTIA estimates that approximately 123,450 homes have access to cable services with approximately 77,000 of them actually subscribing. In its infancy, the cable industry advertised bringing TV service to rural areas, but service areas have generally been limited to higher density markets such as cities and towns.

8. **What Does the Future Hold?** In the near term, new technology will rely more on broadband over copper and fiber telecommunications lines. Technology upgrades such as the "soft switch" will enhance the competitive abilities of local exchange service providers.

While technology offers new options in terms of voice communications using broadband, there is a convergence or bundling of services by the telecommunications and information service providers. The trend is toward all of them offering, now or in the near future, packages of voice, data and video service. Telephone companies are offering traditional POTS, broadband over DSL, VoIP and wireless. Cable companies will be offering video, broadband and voice services. Silver Star Communications now offers Internet Protocol video service, and some other telephone companies are also planning to offer video services delivering television programs to the home. Before long, this technological synergy will reach a point at which a cable subscriber will be able to transfer a television show from cable to cellular phone, allowing the subscriber to leave the house without missing the news or a favorite show.

Today the options are many and the choices multiplying. The delivery of these services has been the result of private initiatives and innovation. National FCC statistics indicate that citizens of Wyoming are spending more on telecommunications than they have before as a result of the many new services and service choices available to them in the market place.

d. Differences in Geographical Availability in Wyoming

The availability of various telecommunications services in Wyoming is described in considerable detail in Appendix D to this Report, which shows, with some increasingly minor exceptions, that voice telecommunications services and features are generally comparable among Wyoming exchanges. Some systems offer a longer or shorter list of features, but most companies provide features which their subscribers actually desire and which the market will support. There is still somewhat of a disparity in the actual availability of high speed data services among Wyoming exchanges mainly due to the cost of providing the service as well as certain technical limitations.

We conclude that the differences in geographical availability for voice telecommunication features and services is less of a matter of geography than it is a difference in composition of the markets served and the abilities of the serving companies. While differences in the availability of voice-grade features is not particularly marked, there are larger variances in the availability of DSL-type services by company and within exchanges. The fiber backbone projects connecting Wyoming exchanges provide for the capacity to the "front door" of the community. However, within the community or exchange, there must be sufficient demand to encourage the telecommunications company to make plant upgrades needed to support these services. Competitive challenges from the coaxial cable distribution systems in Wyoming are examples of how new technology stimulates more active interest in technological upgrades for the public switched network. The SWEETNET project described in this Report, in addition to the other features and capabilities it offers, also provides technologically flexible enhanced connectivity inside the community useful in supporting high speed data services to homes and businesses.

e. Telephone Subscribership Levels in Wyoming

The percentage of households that have telephone service is a standard measure of the universality of telecommunications service; and the United States Bureau of the Census (Census Bureau) collects relevant data as part of its Current Population Survey, which monitors trends between the complete ten-year censuses under an ongoing arrangement with the FCC. This undertaking allows the FCC, state commissions and others to examine the possible effects of various actions on household decisions to maintain, acquire or drop telephone service. The Industry Analysis and Technology Division of the FCC's Wireline Competition Bureau is the source of the Wyoming telephone subscribership information in this Report.

The two generally accepted basic measures of subscribership levels are [i] telephone service within the housing unit ("unit") and [ii] telephone service elsewhere which is available at a common location to the people in the housing unit, such as a hallway, clubhouse or other nearby shared area ("available"). The most current penetration rates for Wyoming, as of August 2004, are set forth in the table below, together with comparative data from previous reports.

Wyoming		
Date	**"Unit"**	**"Available"**
August 2004	**95.8%**	**96.5%**
August 2003	93.8%	95.0%
August 2002	93.7%	95.0%
August 2001	94.2%	95.1%
August 2000	94.8%	96.1%
August 1999	95.0%	95.6%
August 1998	94.8%	95.2%
August 1997	92.7%	94.5%
August 1984	89.9%	92.8%

Considering the subscribership levels for 2004, Wyoming has experienced a statistically significant increase in penetration rates measured between 1984 and 2004, and has also shown modest increases over 2003 in both "Unit" and "Available" penetration statistics, reaching all-time high levels when contrasted with the previous reporting years. For comparison purposes, the summary table below shows the nationwide average penetration rates for the same points in time as those presented above for Wyoming.

Nationwide Averages		
Date	**"Unit"**	**"Available"**
August 2004	**94.2%**	**95.1%**
August 2003	95.5%	96.2%
August 2002	95.1%	96.0%
August 2001	94.6%	95.4%
August 2000	94.4%	95.2%
August 1999	94.4%	95.3%
August 1998	94.1%	95.2%
August 1997	93.9%	95.0%
August 1984	91.6%	93.7%

These statistics still do not include data on customers using cellular or other wireless technology as their primary source of local service, but we have been told that the FCC is compiling statistics which will later include customers who use these alternatives to land line telephony as their main source of local service. We would expect Wyoming percentages to increase further when the FCC begins maintaining this data.

The more comprehensive table below presents comparative data on individual state penetration rates, measured on a "Unit" basis during the reporting year and for a 1983 historical baseline.

Telephone Penetration by State (Percentage of Households with Telephone Service)

(States with declining penetration levels are italicized for ease of review)

State	November 1983	August 2004	Change
Alabama	87.9%	91.7%	3.8%
Alaska	83.8%	96.2%	12.4%
Arizona	88.8%	93.4%	4.7%
Arkansas	88.2%	88.8%	0.6%
California	91.7%	95.9%	4.2%
Colorado	94.4%	97.0%	2.6%
Connecticut	95.5%	98.1%	2.6%
Delaware	95.0%	96.1%	1.1%
District of Columbia	*94.7%*	*93.2%*	*-1.5%*
Florida	85.5%	93.7%	8.2%
Georgia	88.9%	92.1%	3.2%
Hawaii	94.6%	95.3%	0.7%
Idaho	89.5%	96.8%	7.3%
Illinois	*95.0%*	*90.4%*	*-4.6%*
Indiana	90.3%	91.3%	1.0%
Iowa	*95.4%*	*95.2%*	*-0.2%*
Kansas	*94.9%*	*94.0%*	*-0.9%*
Kentucky	86.9%	90.8%	3.9%
Louisiana	88.9%	90.5%	1.6%
Maine	90.7%	96.6%	5.9%
Maryland	*96.3%*	*94.3%*	*-2.0%*
Massachusetts	94.3%	96.8%	2.5%
Michigan	93.8%	94.2%	0.4%
Minnesota	96.4%	97.7%	1.4%
Mississippi	82.4%	91.6%	9.2%
Missouri	92.1%	93.9%	1.8%
Montana	92.8%	93.6%	0.8%
Nebraska	94.0%	94.8%	0.8%
Nevada	89.4%	93.8%	4.4%
New Hampshire	95.0%	95.0%	0.0%
New Jersey	94.1%	96.1%	2.0%
New Mexico	85.3%	91.6%	6.3%
New York	90.8%	95.0%	4.2%
North Carolina	89.3%	93.6%	4.3%
North Dakota	*95.1%*	*94.5%*	*-0.6%*
Ohio	92.2%	94.0%	1.8%
Oklahoma	91.5%	93.8%	2.3%
Oregon	91.2%	95.5%	4.3%
Pennsylvania	95.1%	96.2%	1.1%
Rhode Island	93.3%	95.5%	2.2%
South Carolina	81.8%	94.2%	12.4%
South Dakota	92.7%	92.9%	0.2%

continued

State	November 1983	August 2004	Change
Tennessee	87.6 %	93.6 %	6.0%
Texas	89.0 %	92.5 %	3.5%
Utah	90.3 %	97.0 %	6.7%
Vermont	92.7 %	96.9 %	4.2%
Virginia	93.1 %	94.5 %	1.4%
Washington	92.5 %	95.1 %	2.6%
West Virginia	88.1 %	94.7 %	6.6%
Wisconsin	94.8 %	96.2 %	1.4%
Wyoming	**89.7 %**	**95.8 %**	**6.1%**
Total United States	**91.4 %**	**94.2 %**	**2.8%**

f. The Wyoming Equality Network: Telecommunications Technology Serving Education

After the Wyoming Supreme Court's decision in *Campbell County School District v. State*, 907 P.2d 1238 (Wyo. 1995) and 1997 legislation requiring the development and implementation of a statewide education technology plan, the State developed a plan for connectivity for data transfer between schools and interactive video among all high schools in Wyoming. During the first phase of implementation, Qwest was placed under contract to provide data connectivity to all schools. The system included provision for network, frame relay, ATM-CRS, and private line services. It was designed to support advanced high speed data equipment, satellite service, maintenance and management services. The project, officially known as the Wyoming Equality Network (WEN), covers the entire state; and Wyoming's independent telephone companies, in partnership with Qwest, are responsible for substantial portions of the system. The State currently uses Qwest as the inter-exchange carrier to carry inter-LATA traffic to Torrington.

The WEN network has been deployed successfully for six and a half years. It is a high-speed, broadband digital data access network which offers several powerful and flexible features. It provides equitable access and is scaleable, manageable, standards-based, and future-oriented, as well as being compatible with the existing telecommunications infrastructure of Wyoming's local exchange service providers.

The WEN network, like most wide-area networks, is dynamic and constantly evolving. Marconi 200, 420 and 440 series ATM switches are used along with Cisco routers as network hardware. The WEN network uses Switched Variable Circuits to provide flexible video connectivity. Each video location can make direct, point-to-point connections with any other video location in the state simply by calling. If a conference of three or more sites is needed, they simply schedule the video bridge and accomplish a multipoint meeting. WEN's video bridges have been connected to Primary Rate Interface (PRI or T-1 speed) ISDN connections so the system has the capability to dial out and connect or receive a call and connect with other systems throughout the world.

Wyoming schools have continued to develop the use of the Internet as a research and teaching tool, and their need for performance continues to grow. The Wyoming Department of Education has sought and received additional funding to upgrade most of its existing 56 kbps circuits to higher bandwidth T-1 capacity. This project took almost a year and was completed in February 2004. The upgrade not only provided additional bandwidth to most school locations but also gave network managers an opportunity to redesign many district configurations to allow for an easier path for intra-district communications. Internet demand is almost certain to grow as a result of the additional bandwidth. Therefore, despite the fact that last year ten megabytes of bandwidth had been added to the system's fractional OC3 connection (to bring its bandwidth up to a capacity of 45 megabytes), an additional 10 megabytes was added in October 2004 to bring the total service to 55 megabytes per second. Other network tools have been employed to maximize the system's performance. For example, caching, shaping and site blocking tools have been deployed to minimize waste and improve performance.

WEN serves all Wyoming high schools and community colleges, as well as the University of Wyoming's College of Education. It successfully passed beta testing before the reporting year and now provides educational classes and educational service support at remote locations throughout Wyoming.

The current contracts reach maturity in June of 2006, and the Department of Education is currently investigating the capabilities of various vendors to determine what might be available to enhance or improve the next generation of the WEN.

The aggregation of the schools to address common communications technology needs throughout the state helps to make it feasible for telecommunications companies to further deploy ATM-CRS technology for other businesses -- a significant benefit given the rural and sparsely populated character of the state and the investment required to support advanced technology telecommunications applications.

The infrastructure deployed by Wyoming's telecommunications companies has contributed to WEN's success. For example, they have upgraded their central offices with digital capabilities and have, as can be seen in this Report, carried through with significant enhancements of their digital fiber optic interoffice facilities.

You may obtain more technical information about the WEN system from Tom Engbretson at the Wyoming Department of Administration and Information. Contact him at tengbr@state.wy.us or at 307-777-5089.

g. Wyoming Relay

Telecommunications Relay Service (TRS), under the mandates of Title IV of the federal Americans with Disabilities Act (ADA), is designed to provide universal telephone service for all Americans including people who are deaf, hard of hearing, or speech-impaired. On May 1, 2003, the Federal Communications Commission (FCC) again granted certification to Wyoming's Telecommunications Relay Service program (Wyoming Relay) as meeting or exceeding all

established operational, technical, and functional minimum standards. The certification is in effect through July 25, 2008.

During the reporting year, the State of Wyoming Department of Workforce Services, Division of Vocational Rehabilitation, selected Hamilton Relay, Inc., as Wyoming's new provider of Telecommunications Relay Service. Previously, Sprint was the provider of relay service for Wyoming. Hamilton Relay began processing Wyoming relay calls on August 1, 2004. It was selected as the result of a competitive bidding process in which it was determined that it provided the best relay service at the lowest cost to the State. Hamilton Telecommunications, based in Aurora, Nebraska, currently provides relay services to the states of Nebraska, Idaho, Kentucky, Louisiana, Wisconsin, Rhode Island, Maine and the District of Columbia. Established in 1901, Hamilton also provides local telephone and cable television service, call center services, Internet services, computer sales, network integration and other services to customers in Nebraska and across the country.

In 2004, the average number of outbound traditional Wyoming Relay calls per month was 4,381; and this is the same as the previous reporting year. Feedback from customers indicates that Wyoming Relay customers are continuing to switch technology and services. Many are now making Internet relay calls, although we have not been able to get good statistics on the call volume of Internet relay. Current technology does not allow us to know where the Internet relay call is originating from (Wyoming or another state); customers have their choice of providers; and we do not receive reports on the number of Internet relay calls from all providers. We have also received customer feedback that there is an increased use of two-way pagers, e-mail and instant messaging as methods of communication. After 711 dialing access for relay services was implemented nationwide in 2001, Wyoming Relay maintained the existing toll-free access numbers in addition to adding 711 as a convenience. The majority of Wyoming Relay calls now come in via 711 dialing access.

Wyoming legislation authorizes both the Telecommunications Relay Service and an Equipment Distribution Program, all to be funded by a telephone line surcharge. Persons seeking equipment through the program must demonstrate financial need. Eight amplified telephones, thirteen text telephones (TTYs), one voice carryover device, thirteen signaling devices, and seven CapTel telephones were distributed free of charge to individuals with communication impairments who met the financial needs test.

Effective December 8, 2003, Wyoming Relay began offering CapTel Service. The CapTel telephone lets users listen to callers and, at the same time, receive written captions of everything the caller says. The captions, provided by a service that uses the latest in voice-recognition technology, are displayed nearly simultaneously with the caller's speech, making CapTel ideal for anyone who finds it difficult to hear over the telephone. Telephone calls are made in a customary manner -- by simply dialing the called party's telephone number directly. As they dial, the CapTel automatically connects to a captioning service. It all happens quickly, automatically, and transparently, so callers do not interact with the operator or "set up" the call in any special way. The number of CapTel minutes in October 2004, which is the most recent month for which we have data, was 2,416. This is a dramatic increase from March, which was the first month of fully FCC-compliant CapTel service in Wyoming, when the number of CapTel

minutes was only 210. The number of CapTel minutes is anticipated to continue to grow exponentially.

Other services offered by Wyoming Relay include:

Equal Access to Carrier of Choice Wyoming Relay gives users access to their chosen Inter-LATA (interstate) and Intra-LATA (intrastate) carrier or carriers when making relay calls and to all other operator services, to the same extent that such access is provided to standard phone users.

Video Relay Service Video Relay Service, available at http://www.wyvrs.com, provides American Sign Language users with an attractive alternative that offers them the opportunity to communicate by video conferencing, using their native language.

Internet Protocol Relay Anyone who has an account with an Internet service provider can make a relay call by accessing http://www.hiprelay.com.

Voice Carryover (VCO) VCO allows a deaf or hard-of-hearing person to speak directly to a hearing person. When the hearing person speaks, a relay operator will type to the deaf or hard-of-hearing person everything that is said and the communication will appear on a text display. The Wyoming Relay access phone number for VCO is **1-877-877-1474**. Two-line VCO is also available. Two-line VCO allows a VCO user to have a more interactive conversation. By using two telephone lines, the caller can listen to the conversation on one line while receiving typed text from a relay operator on the other line, thus creating a more natural flow of conversation.

Hearing Carryover (HCO) HCO allows speech-disabled users who can hear to listen to the person they are calling. The HCO user types the desired conversation for the relay operator to read to the standard telephone user. Two-line HCO is also available. Two-line HCO uses two telephone lines and 3-way calling.

Speech-to-Speech Relay Service (STS) Specially trained relay operators help persons with speech disabilities voice their conversations. The relay operators repeat to the other party the words of persons with speech disabilities or persons who use a speech synthesizer. The Wyoming Relay access phone number for STS is **1-877-787-0503**.

Servicio en Español Wyoming Relay Service ofrece el sistema de Relay en español para llamadas en las cuales ambas partes hablen espanol. Para usar el sistema de Relay en español de Wyoming Relay Service, marque el 1-800-829-2783 (TTY/Voz).

Spanish Language Relay Service TTY users can type in Spanish and the conversations will be relayed in Spanish or translated to English. This is also available to hearing/voice relay users. To access this service, users should dial 1-800-829-2783 (TTY/Voice).

Pay-per-call Calls Deaf, hard-of-hearing, deaf-blind, and speech-disabled callers may access 900 pay-per-call services using Wyoming Relay.

Directory Assistance Wyoming Relay provides access to local, intrastate, and interstate directory assistance.

Answering Machine Retrieval (AMR) Users can ask relay operators to retrieve messages from their voice or TTY answering machines or voice mail. If needed, the caller gives the relay operator a password, places the handset next to the speaker of the answering machine or voice mail until all messages are retrieved, and then the relay operator types or voices the message back to the relay user.

Handling of Emergency Calls This provides a system for incoming emergency calls that, at a minimum, automatically and immediately transfers the caller to the nearest Public Safety Answering Point (PSAP, also known as an emergency dispatch or 911 center). In addition, the relay operators pass along the caller's telephone number to the dispatcher when a caller disconnects before being connected to emergency services. ***Despite this, Wyoming Relay encourages users to dial 911 directly in case of an emergency.***

Relay Operator gender preferences Wyoming Relay users may request a relay operator of either gender at the initiation of a call or when there is a change of relay operators.

Speed of Answer 90% of all Wyoming Relay calls are answered within ten seconds. This service requirement helps to ensure that relay calls are answered quickly and are not placed on hold or in queue.

60 WPM Typing Speed Relay operators are required to type a minimum of 60 words per minute (WPM).

Caller ID and other advanced services Wyoming Relay uses SS7 technology to provide true Caller ID that transmits the 10-digit number of the calling party. Because Wyoming Relay can pass, send and receive calling line identification information, a whole host of other advanced features are now available including: Call Rejection, Call Acceptance, Anonymous Call Rejection, Preferred Call Forwarding and Unique Flash. Previously, a relay call would show up on Caller ID as either "unavailable" or "out of area."

Wireless Calls Wyoming Relay Service is capable of processing relay calls that involve pagers, cellular and personal communications services (PCS).

Consumer Complaints Complaint resolution procedures incorporate multiple checks and balances to ensure that complaints are promptly and satisfactorily resolved with Wyoming Relay customers. For questions, problems or to receive free relay training and information, contact Wyoming Relay Customer Service [available 24 hours a day at **1-888-694-4450**] or the state office [available during working hours at **1-800-452-1408** V/TTY and by e-mail at **lcieli@state.wy.us.**

Summary of Important Contact Information for Relay Services

All call types	711
Text Telephone (TTY) access to Wyoming Relay	1-800-877-9965
Voice users access to Wyoming Relay	1-800-877-9975
Voice Carryover (VCO) users access to Wyoming Relay	1-877-877-1474
Speech-to-Speech (STS) users access to Wyoming Relay	1-877-787-0503
Servicio en español (Spanish Language Service)	1-800-829-2783
Video Relay Service	www.wyvrs.com
Internet Relay Service	www.hiprelay.com
24-Hour Customer Service Center	1-888-694-4450 V/TTY
Relay Service Information	1-800-452-1408 V/TTY

The Wyoming Telecommunications Relay Service Advisory Committee

In 1991, W.S. §§ 16-9-202 through 16-9-204, created the Telecommunications Relay Service Advisory Committee, a seven-member committee appointed by the Governor for three-year terms. The Committee provides advice concerning the administration of the Wyoming Relay Program, and annually determines the amount of the telephone surcharge per access line. Members are selected from appointment districts, and not more than four members may be affiliated with the same political party. The current members are: Angela S. Turner (I) [Cheyenne]; Susan M. Fanning (D) [Laramie]; Jeffrey S. McKimmey (R) [Jackson]; John D. Cosner (R) [Gillette]; Paul S. Brooks (R) [Sundance]; Heather Parsons (D) [Casper]; and Larry Paulsen (R) [Powell].

h. SWEETNET: an Open Source Service Provider Network in Southwestern Wyoming
(by Steve Shea, Chairman, Joint Powers Telecommunications Board)

It has traditionally been the responsibility of cities to provide the infrastructure required to maintain and enhance the quality of life for residents and provide businesses with new opportunities to grow and expand. Along with providing the infrastructure for incumbent businesses to grow and flourish, it is also necessary to attract and retain new businesses thus expanding the opportunities within the communities.

Access to new and competitively priced advanced telecommunications and information services, now and in the future, is as important today in the 21st century as basic telephone service, paved streets, water and sewer were to the quality of life and economic development in rural communities in the early part of the 20th century.

To that end the Joint Powers Telecommunications Board (JPTB), an inter-local government agency formed by the cities of Green River and Rock Springs, is in the process of implementing a Southwestern Wyoming Enhanced & Expanded Telecommunications (SWEET) Network. The SWEETNET will allow service providers to achieve "Internet economies of scale in the last mile." Residents and businesses will benefit through efficient service provisioning and increased bandwidth capacity. As it becomes more efficient for service providers to deploy high-speed, multi-service networks, more customers will be connected, more revenue

opportunities around high-value applications will arise, and prices for services and applications will decrease.

The SWEET System will provide a dynamic environment for economic growth within the region and provide residents and businesses with "twenty-first century information services."

The Benefits expected are:

- A reliable, cost-effective, high-speed community based network..
- Interconnectivity among local government facilities and entities, which will permit greater economies of scale as well as new services to be offered.
- Enhance the educational opportunities and environment within the communities by providing local high speed Transparent LAN connectivity for K-12 schools and colleges. Provide for education's future outreach to the community by providing connectivity to businesses and residents as well as high-speed external connections to the worldwide education community.
- Enhance transportation opportunities and safety within and between the communities by providing reliable connectivity for citizens to their public transportation systems.
- Create a competitive landscape for information and telecommunications services that will foster increased competition, greater choice, rapid provisioning and delivery of services, lower costs and extremely high reliability.
- Facilitate "open access" to the network for local businesses for point-to-point and transparent LAN services across the network at reasonable cost.
- Provide a MON (metro-area optical network) infrastructure that will create an environment where community based information, communications, entertainment and business services can flourish and improve the quality of life for all of its residents.

The SWEETNET System is a multi-year program that began with the installation, termination and testing of a fiber optic backbone. The JPTB has completed the installation of a 96-strand single mode fiber backbone connecting the cities of Green River and Rock Springs to the regional POP (Point of Presence) on the Broadwing transcontinental fiber. This fiber is approximately 21 miles long with four main points. (Green River City Hall, Rock Springs City Hall, Blairtown and the POP). This fiber backbone extends the "Carrier Class" network of the tier 1 transcontinental bandwidth providers to the respective cities. It provides a platform for the delivery of cost effective high bandwidth services to the Core Layer of the SWEETNET System.

The backbone consists of:

- 24 strands of continuous fiber between Green River and the POP, terminated at both ends,
- 24 strands of continuous fiber between Rock Springs and the POP, terminated at both ends,
- 12 strands of continuous fiber between Green River and Rock Springs, terminated at both ends,

- 84 strands of continuous fiber between Rock Springs and Blairtown, not terminated at either end, and
- 24 strands of continuous fiber between Green River and Blairtown, not terminated at either end.

During 2003, the JPTB and their consultant and contractors completed a market study, a preliminary engineering design and a feasibility study, copies of which are available on the SWEETNET web site below. The market study showed the likely penetration rate SWEETNET ultimately achieves will reach 67% to 71%. A follow-up independent marketing study reached the same conclusion. Total cost of the project would be approximately $25-30 million, with the final cost dependent on bond interest rates at the time of construction and the final selection of the type of optical connector that will be used at each subscriber location. Based on the estimated cost of the project, a subscriber penetration rate of 22-27% needs to be achieved to assure SWEETNET's financial viability. Penetration requirements vary depending on exactly how the construction of the network is phased. The SWEETNET market studies combined with an analysis of similar projects throughout the country indicate that the required subscriber penetration rates can be effectively achieved.

Unfortunately, the city governments of Rock Springs and Green River have experienced state revenue downturns in the past year and are not currently in a position to back the project itself financially. The JPTB has contracted with MetroNets to find private financing from other sources. The results of that search will be revealed early in 2005.

In the meantime, the cities have continued to fund the JPTB, and move forward with connecting governmental buildings. An RFP was issued in January of 2005 for construction of a line between the County Sheriff Offices in Rock Springs and the Rock Springs City Hall. This will enable all of the law enforcement agencies in both cities to communicate with increased security and enable some enhancements of the E-911 system. Fiber upgrades to the County and City offices in Green River are also included in the RFP.

The SWEETNET system will be a new generation network rather than a new generation monopoly. The JPTB will not be locked into any long-term contracts or exclusive arrangements with any particular service providers. The JPTB is committed to bring at least two retail service providers for each of the functional areas: voice, video broadcast, video on demand, and an Internet Service Provider onto the system in a reasonable time frame. These services are in addition to Transparent LAN and other "On-Net" services that will be provided to local businesses and government without an external service provider. The SWEETNET system will be an open network owned by the public, in which the system is operated by an entity independent of the retail services.

The system will be an affordable community-wide, retail-neutral, open network, more advanced than the hybrid fiber/coax (HFC) designs found elsewhere. The use of HFC technology does not fully use the most recent, proven technologies, has severe limitations and would soon be outdated. In addition, the JPTB believes that an HFC system, no matter how modern or advanced, cannot provide sufficient bandwidth to accommodate many simultaneous service providers in all of the potential application areas that such a system should or could provide.

Another major consideration is the ability to support the needs of large corporate and government interests for extremely high bandwidth services such as 1Gb or 10Gb Transparent LAN Services (TLS), Synchronous Optical Network (SONET), OC-3 to OC-192, and others.

The JPTB will contract with a network operator who will face no conflict of interest in opening the network to all retail services and wholesale services. Developing municipal infrastructure with any content carrier would undermine the very purpose of building a new independent wholesale transport infrastructure, the intent of which is to provide open, fair and equal access to all interests in the community.

Key features of the SWEET System will be:

- Open Architecture to eliminate monopoly, technology lock-in and promote competition for open and equal access.
- Transparent end-to-end optical infrastructure which takes advantage of key technologies to create an Open Systems Interconnection (OSI) Layer 2 network which has a fully redundant Core and Distribution layer Architecture with 99.999% reliability.
- Multi-gigabit core and distribution layers and gigabit capable access layer utilizing the latest "Metro Ethernet" technologies with the ability for seamless scalability into Dense Wavelength Division Multiplexing (DWDM) and other transparent high bandwidth technologies for future growth requirements.
- Accommodate any present or future voice, Internet, data and video requirements provided by multiple providers while not being locked-in to any single technology or vendor. All traffic transits the same network with no hybrid networks required.
- Complete compatibility with all Internet and Internet II protocols
- A Layer 2 network design that creates ubiquitous access and is fully converged and readily scalable.
- Redundant ring topology utilizing gigabit Ethernet over fiber optics with highly flexible Quality of Service (QOS) and Class of Service (COS) configurable to allocate bandwidth to the various data, voice and video services.
- The system allows for multi-site connectivity, maintains system reliability through redundancy, and has built-in port capability to support expansion projections.

The SWEET System will be capable of supporting the following services:

- VoIP telephony,
- Instructional programming,
- Video-on-demand (VOD) streams,
- Video teleconferencing,
- Unified messaging (e-mail/voice mail) and Internet access,

- Networked data services,
- Smart home devices, and
- Internet gaming.

It is the intent of JPTB to create a versatile network architecture that will facilitate the rapid introduction and adoption of services and dramatically reduce the current provisioning times required to bring multi-service networking solutions to government, businesses and residents.

Additional reports, studies and information about the SWEETNET system can be obtained on the Internet at www.sweetnet.us.

i. The Wyoming Telecommunications Council -- 2004.

WYOMING TELECOMMUNICATIONS COUNCIL

2004 Annual Report

to
The Honorable Dave Freudenthal
Governor of Wyoming
and
The Legislative Joint Corporations, Elections, and Political Subdivisions Interim Committee

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Statutory activities of the Wyoming Telecommunications Council.

The Wyoming Telecommunications Council was established by the Legislature in 1989 under W.S. § 9-2-1026.2. The nine-member Council, appointed by the Governor with Senate approval, is charged by law with [a] developing long range and short range goals and plans to meet the telecommunications needs of the state and its citizens; [b] inventorying current telecommunications infrastructure; and [c] soliciting comments and recommendations on needs, practices and technologies for providing telecommunications services in Wyoming. Below is a copy of the Council's 2004 Annual Report. Find more information about the Wyoming Telecommunications Council on line at:

http://cio.state.wy.us/telecom/index.asp

MEETING SUMMARIES

The Wyoming Telecommunications Council (WTC) met with its membership on January 7, 2004, in Cheyenne. The membership was briefed on the upcoming Budget Session, as it related to the WTC budget request for the Broadband Project. Advocacy suggestions were offered and discussed. The Wyoming Public Service Commission (PSC) Triennial Review Order (TRO) progress was updated. The WTC offered opinion and participated in the TRO.

On March 19, 2004, the WTC again met in Cheyenne. An update was provided by the WyoLink (public safety mobile communications) project team. Mr. Robert Wyatt, WTC council member, served as the co-chair for the WyoLink Steering Committee. The Council was informed of a $250,000 appropriation for the Broadband Study. The appropriation was made available through the Wyoming Business Council "Business Ready Communities" fund. The Broadband Project work plan was revised, as a result of industry and Council input. It was decided that the Wyoming Telecommunications Association will be provided a place on the agenda in all future WTC meetings. Senate Enrolled Act 31 (to establish a uniform statewide health care information and communication technology system) was discussed, as to similarities between that project and the Broadband Project. The health care team was contacted in an effort to share telecommunications coverage data. The WTC chairman serves on the subcommittee for the statewide health care electronic medical records project.

The WTC met in a working session, on April 23, 2004, in Casper, to discuss the broadband initiative work plan. Industry representatives were invited to participate and provide input. The input was used to change the work plan document in preparation for the WTC presentation to the Wyoming Business Council at its June meeting in Jackson, WY.

The WTC met on July 7, 2004, in Casper. The WTC chairman reported on his attendance at the Wyoming Telecommunication Association (WTA) meeting. The WTA embraced the use of the "place at the table" for future WTC meetings. It was reported that the Wyoming Business Council (WBC) had approved the Broadband Project concept and that they had allotted $250,000 from their "Business Ready Communities" fund for that project. The Broadband Project work plan was presented and discussed. The tasks that need to be completed, prior to drafting an RFP for a telecommunications consultant, were discussed. The initial survey of the telephone companies and cable providers is to collect data in order to identify the "challenge" areas for services within our state. A recent national survey was shown to have recognized Wyoming's improvement in the digital services being provided to citizens. The ranking was 18th – which is quite an improvement from the previous ranking of 44th. Progress of telecommunications infrastructure through the Wind River Indian Reservation was discussed. The Wyoming Public Television director informed the Council of the new digital conversion project and stressed the need to share telecommunication resources.

The WTC met on September 17, 2004 in Worland. The Electronic Health Records RFP generated 9 proposals for a plan to implement electronic medical records and exchange medical records, using a common format. A couple of WTC council members assisted in reviewing and advising on this project. The WyoLink Radio Project released its RFP in August for an interoperability solution for the state. The industry report focused on what information was confidential and/or proprietary, as the survey is prepared for release. The WTC and the audience reviewed, worked, and finalized the initiative letter and the survey during this session.

The WTC met on December 10, 2004 in Casper. Possible sources for a more detailed information survey were discussed. The Broadband Initiative Project steps were restated and confirmed by the Council. Top priorities for 2005 were identified by the Council. Upcoming Council vacancies were discussed, as they relate to nominees and leadership. The activities of

the University of Wyoming and the Wyoming Business Council, related to the "Business Incubator" at the University, were discussed.

The Broadband Project is guided by the attached Wyoming Telecommunications Council policy statement:

Wyoming Telecommunications Council Policy Brief – as adopted 11/14/03

To make Wyoming a better place to live and work, the State government hereby resolves to achieve universal broadband access to advanced telecommunications services for all Wyoming citizens.

Wyoming's ability to participate in the global economy depends on providing all citizens access to a broadband infrastructure that delivers such services as high-speed Internet access and video conferencing. Broadband networks have joined highways and railroads as necessary elements of a modern infrastructure and are an essential component of economic prosperity.

Just like the farm-to-market roads programs of the last century created opportunities for farmers and ranchers to move their products to market, our ability to compete in the new century depends in large measure on the development of our telecommunications infrastructure. Economic, social, educational and healthcare problems will result, if areas are 'left out' of the communications revolution because they lack broadband access.

- Broadband services are an essential component to operating a business. Today, ranchers with access to high-speed services can locate and transact business with livestock purchasers around the world. Lack of broadband access results in lost sales, which has a negative impact on economic prosperity.
- Lack of broadband access can also impact a community's educational system. A child assigned to write a school report on the Transcontinental Railroad can produce a superior product, if that child can access the Library of Congress with the click of a mouse. The edge that technically well-served students have over students without access to these services will have an enormous impact on future generations.
- Quality healthcare is also of critical importance to Wyoming. Telemedicine facilitates the exchange of patient information from one site to another over broadband services. Lives can be saved in remote rural areas where a patient and the closest health care professional are miles apart.

Our principal challenge, as a State, is to identify any barriers that might exist to achieving universal broadband access and to eliminate them. ***With this in mind, the State recommends that the Legislature:***

Fund the Wyoming Telecommunications Council's budget request. Once funded, the Council will define the areas of Wyoming where barriers exist to the provision of universal broadband access and develop collaborative plans of action to overcome these barriers. These plans will

emphasize market-based solutions where possible and will be developed in cooperation with all municipal and county governments and the telecommunication companies that serve them.

BROADBAND WORK PLAN

The Broadband proposal calls for the funding of seven separate steps toward implementing the goal of achieving universal broadband access:

- Bring together the primary stakeholders to determine the specifics of the project through a scoping statement;

Data collection is on-going.

- Create an inventory of current and prospective types of access facilities, including, but not limited to, copper loops, DSL service, cable modem access, wireless technologies, and the like;

Data collection is on-going.

- Gather and analyze baseline data on existing and planned broadband facilities by location and provider;

Data collection is on-going.

- Issue a Request for Information (RFI), to seek ways of expanding broadband access to areas that the previous step showed were lacking and would continue to lack without a change to governmental policy;
- Analyze the responses to the RFI to determine the optimal approach to achieving universal broadband access in Wyoming and determine both a rough plan to implement the strategy and a rough estimate of the cost of doing so;
- Develop a plan to educate the public about why universal broadband access should be a Wyoming goal; and
- Develop any needed legislative changes.

The planned activities of the Wyoming Telecommunications Council in 2005 critically depend upon the ability of the project team to collect meaningful information, which will identify the "challenge" areas and allow the WTC to hire a consultant to research each of the "challenge" areas for an inventory of proximity telecommunications resources.

j. Wireless Telecommunications in Wyoming

Cellular telecommunications services are provided state-wide within each of five Rural Service Areas (RSAs) and one Metropolitan Statistical Area (MSA). Each Area, conceptually similar to a certificated service territory, is served by two providers. In each Area, there is always a non-wireline provider (System A) and a wireline provider legally affiliated with an existing land-line telephone company (System B). Systems A and B are mutually exclusive. Under federal law, the FCC, and not the states, regulates both the certification of wireless service providers for market entry and the specification of their service territories. Further information about cellular service providers, Wyoming's RSAs and its MSA is found in Appendix C to this Report.

PCS (Personal Communications Service) wireless telecommunications services are also provided state-wide through various carriers licensed and authorized by the FCC. PCS is broadly defined as mobile and fixed wireless communications products and offerings, serving both residential and business customers, and can be integrated into a variety of networks. PCS is functionally divided into two major categories – broadband and narrowband. Cellular and broadband PCS are comparatively similar in quality, price, value added services and coverage. For PCS purposes, Wyoming is divided into nine Basic Trading Areas (BTAs) with each area similar to a certificated service territory. Further information about Wyoming's PCS providers and Wyoming's nine BTAs can be found in Appendix C to this Report.

The Commission's jurisdiction over wireless telecommunications service is limited in the Wyoming Act to universal service funding matters and to service quality issues "to the extent not preempted by federal law." See, W.S. § 37-15-104(a)(vi). The Commission took legal argument on preemption and found that the area was sufficiently preempted by federal law that the Commission would not engage in cellular quality of service rule making. [Docket No. 90000-XR-01-88; General Order No. 88] The ability of wireless carriers which provide the functional equivalent of land line service to obtain payments from the Wyoming Universal Service Fund was added to the Wyoming Act in 2001. See, W.S. §§ 37-15-101 and 37-15-102. The definition of the wireless services eligible for support from the fund is found at W.S. § 37-15-103(a)(xvi).

General issues concerning the Wyoming Universal Service Fund are discussed above in this report.

SECTION 3
OTHER INFORMATION

a. The Commission's Geographic Information System (GIS)

Since December 2000, the Commission has been using a Geographic Information System (GIS) to delineate the certificated area boundaries for all jurisdictional utilities in Wyoming, including data on the certificated territories of all facilities-based ILECs operating in Wyoming. In the past year, there have been only limited updates to the data. A GIS map of the ILEC certificated service areas, can be found at Appendix K to this Report. [See our updated color GIS maps of the service territories of Wyoming's gas, electric and telecommunications companies at the PSC web site: http://psc.state.wy.us/htdocs/certterr.htm]

Prior to the implementation of GIS, maps of certificated area boundaries were maintained primarily by hand, using traditional hand drafting methods. Our GIS maps are more accurate and much easier to maintain and update. We expect these more accurate computer maps to continue to keep disputes among utility companies over certificated territories to an absolute minimum. Changes to utility certificated areas which may be brought about by, among other things, utility acquisitions and mergers are reflected in the GIS data base as soon as they are approved by the Commission.

The Commission has long recognized that irregularities in written territory descriptions and anomalies in the Public Land Survey, which our orders reference, have the potential to create varying perceptions of the precise boundaries of utility certificated areas. The GIS system will allow us to identify areas where boundaries overlap, or conversely, where no utility has been certificated to provide service. When these areas are identified and checked against relevant Commission orders, we will be able to consult with the affected utilities to resolve any remaining service area anomalies. This process will continue in 2005. During the reporting year, the Commission's GIS system helped to track down the origins and logic behind the boundaries of electric utility service territories in the Buffalo area and the Campbell County area for PacifiCorp and Powder River Energy Corporation.

In addition to refining the results of this phase of the project, the Commission is actively developing additional uses for its GIS platform. For example, the Commission's facilities engineers have continued to capture necessary data related to the geographic location of utility facilities throughout Wyoming using Global Positioning Satellite (GPS) technology. While this effort has been primarily focused on electric facilities throughout the state, as time and resources allow, we will capture similar data on telecommunications facilities such as switching and remote terminal locations and interoffice cable routes. This in turn will allow a more accurate inventory of telecommunications services throughout Wyoming and assist in identifying areas of compliance and non-compliance with the Commission's quality of service rules. The Commission is also considering constructing an overlay of wireless facilities in the future.

The Commission has shared data with several organizations in the past year. The following disclaimer is sent with all data requests:

"No liability is assumed by the Wyoming Public Service Commission due to the accuracy of the information, errors or omissions. Although these data have been processed successfully on a computer system, no warranty expressed or implied is made regarding the accuracy or utility of the data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any such warranty. This disclaimer applies both to individual use of the data and aggregate use with other data. The State of Wyoming does not waive sovereign immunity by distributing these data, and specifically retains immunity and all defenses available to it as sovereign pursuant to Wyo. Stat. § 1-39-104(a), Wyo. Stat. § 1-39-120, Wyo. Stat. § 1-39-121, and all other state law."

b. Your Reactions to This Report are Important to Us

Please tell us what you liked about this Report and what you would like to see added, changed or covered differently in the future. Please share your thoughts and ideas with Steve Oxley, the Commission's Chief Counsel:

by telephone: 307-777-7427 (voice) or 307-777-5700 (fax)
by e-mail: soxley@state.wy.us
in writing: Steve Oxley, Chief Counsel
Wyoming Public Service Commission
2515 Warren Avenue, Suite 300
Cheyenne, Wyoming 82002

c. The Telecommunications Report Team

Reports do not write themselves, and this Telecommunications Report is no exception. Among the contributors to this report are:

Mike Korber, Wyoming Public Service Commission
and
Art Schmidt, Wyoming Public Service Commission
Bryce Freeman, Wyoming Office of Consumer Advocate
Kim McMasters, Wyoming Public Service Commission
Lori Cielinski, Department of Workforce Services
Tom Engbretson, Department of Administration & Information
Steve Shea, Chairman, Joint Powers Telecommunications Board
and
Various experts working for Wyoming's land line and wireless service providers.

APPENDIX A

Wyoming Incumbent Local Exchange Carriers (ILECs)

As of December 31, 2004

1.	**All West Communications** P. O. Box 588 Kamas, UT 84036-0588 (801) 783-4361 County Served: Lincoln Exchange: Cokeville	Access Lines Revenues Gross Plant Net Plant	326 $ 606,546 $2,954,209 $1,111,264
2.	**Chugwater Telephone Company** P. O. Box 223 Chugwater, WY 82210-0223 (307) 422-3535 Counties Served: Laramie, Platte Exchange: Chugwater	Access Lines Revenues Gross Plant Net Plant	264 $ 511,648 $1,227,946 $ 254,434
3.	**Dubois Telephone Exchange** P. O. Box 246 Dubois, WY 82513-0246 (307) 455-2341 Counties Served: Fremont, Sweetwater and Carbon Exchanges: Baggs, Crowheart and Dubois	Access Lines Revenues Gross Plant Net Plant	2,413 $ 4,198,273 $14,899,982 $ 5,280,654
4.	**Golden West Telephone Cooperative** P. O. Box 411 Wall, SD 57790-0411 (605) 279-2161 Counties Served: Niobrara and Weston Exchange: Edgemont, SD	Access Lines Revenues Gross Plant Net Plant	28 $ 77,812 $303,182 $124,412
5.	**Project Telephone Company** P. O. Box 600 Scobey, MT 59263-0600 (406) 783-5659 County Served: Park Exchange: Clark	Access Lines Revenues Gross Plant Net Plant	272 $ 115,334 $1,246,246 $ 750,527

APPENDIX A

Wyoming Incumbent Local Exchange Carriers (ILECs)

As of December 31, 2004

6.	**Range Telephone Cooperative** P. O. Box 127 Forsyth, MT 59327-0127 (406) 347-2226 Counties Served: Crook, Weston, Campbell, Sheridan and Johnson Exchanges: Alzada, MT, Decker, MT, Arvada, Clearmont, Southeast Sheridan, and Sundance	Access Lines Revenues Gross Plant Net Plant	2,312 $ 2,625,150 $16,184,968 $ 8,452,725
7.	**RT Communications** P. O. Box 506 Worland, WY 82401 (307) 347-8251 Counties Served: Fremont, Natrona, Laramie, Weston, Crook, Washakie, Johnson, and Hot Springs Exchanges: Albin, Burns, Carpenter, Pine Bluffs, Gas Hills, Hulett, Jeffrey City, Kaycee, Midwest, Moorcroft, Newcastle, Shoshoni, Thermopolis, Upton/Osage and Worland	Access Lines Revenues Gross Plant Net Plant	17,297 $20,300,525 $99,696,366 $25,099,647
8.	**Silver Star Communications** 104101 Highway 89 Freedom, WY 83120 (307) 883-2411 County Served: Lincoln Exchanges: Alpine and Freedom	Access Lines Revenues Gross Plant Net Plant	4,230 $ 4,847,728 $16,814,404 $ 6,461,631
8a.	**Silver Star Communications at Alta, d/b/a Teton Telecom** County Served: Teton Exchange: Driggs, ID	Access Lines Revenues Gross Plant Net Plant	263 $402,878 $987,936 $383,978
9.	**CenturyTel of Wyoming formerly PTI Communications** 110 South Franklin Pinedale, WY 82941 (307) 367-4321 Counties Served: Sublette, Sweetwater, Carbon, and Albany Exchanges: Big Piney, Eden-Farson, Medicine Bow and Pinedale	Access Lines Revenues Gross Plant Net Plant	5,673 $ 4,347,295 $19,134,867 $ 4,610,991

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Wyoming Incumbent Local Exchange Carriers (ILECs)

As of December 31, 2004

10. TCT West
P. O. Box 671
Basin, WY 82410
(307) 568-3357

Access Lines	5,460
Revenues	$ 8,222,699
Gross Plant	$39,397,256
Net Plant	$21,634,369

Counties Served: Big Horn, Park and Hot Springs
Exchanges: Lovell, Meeteetse, Greybull, Frannie/Deaver and Basin

11. Tri County Telephone Association
P. O. Box 310
Basin, WY 82410-0310
(307) 568-2427

Access Lines	1,106
Revenues	$ 3,121,638
Gross Plant	$11,803,674
Net Plant	$ 5,989,894

Counties Served: Washakie, Big Horn, Park, and Hot Springs
Exchanges: Burlington, Hamilton Dome, Hyattville and Ten Sleep

12. Union Telephone Company
P. O. Box 160
Mountain View, WY 82939-0160
(307) 782-6131

Access Lines	6,172
Revenues	$26,615,687
Gross Plant	$103,981,886
Net Plant	$47,896,885

Counties Served: Uinta, Sweetwater, Carbon, Albany, Lincoln, and Sublette
Exchanges: Mountain View, Lyman, Hanna/Elk Mountain, Rock River, LaBarge, Shirley Basin, Saratoga and Encampment

13. Sprint Communications d/b/a United Telephone Company of the West
P. O. Box 2128
Scottsbluff, NE 69363
(308) 635-8200

Access Lines	6,961
Revenues	$ 7,032,136
Gross Plant	$15,056,928
Net Plant	$ 4,977,536

Counties Served: Goshen and Platte
Exchanges: Guernsey, LaGrange, Lingle, Torrington and Lyman, NE

APPENDIX A

Wyoming Incumbent Local Exchange Carriers (ILECs)

As of December 31, 2004

14. **Qwest Corporation**
6101 Yellowstone Road
P. O. Box 428
Cheyenne, WY 82003-0428
(307) 771-6298

Access Lines	255,442
Revenues	$209,466,052
Gross Plant	$557,438,417
Net Plant	$138,011,952

Counties Served: All Wyoming Counties (Albany, Big Horn, Campbell, Carbon, Converse, Crook, Fremont, Goshen, Hot Springs, Johnson, Laramie, Lincoln, Natrona, Niobrara, Park, Platte, Sheridan, Sublette, Sweetwater, Teton, Uinta, Washakie and Weston) and Yellowstone National Park.

Exchanges: Afton, Buffalo, Casper, Cheyenne, Cody, Dayton/Ranchester, Douglas, Evanston, Gillette, Glendo, Glenrock, Green River, Jackson, Kemmerer, Lander, Laramie, Lusk, Powell, Rawlins, Riverton, Rock Springs, Sheridan, Story, Wheatland, Wright, Yellowstone Park (Lake, Mammoth, Old Faithful)

Sources: **Telecommunications company reports filed with the Commission during the reporting year.**

APPENDIX B

Wyoming Competitive Local Exchange Carriers (CLECs)

as of December 31, 2004

Mergers and acquisitions which occurred during the reporting year and previous years are described at the end of the relevant company entries.

1.	**AT&T Communications of the Mountain States** 1875 Lawrence Street Denver, Colorado 80202 Certificate authority: Qwest exchanges only
2.	**Sprint Communications Company** 8140 Ward Parkway P.O. Box 8417 Kansas City, Missouri 64114 Certificate authority: Qwest and Sprint/United exchanges only
3.	**Excel Telecommunications** 2440 Marsh Lane Carrollton, Texas 75006 Certificate authority: Qwest exchanges only (Acquired by Teleglobe Communications during 1998.)
4.	**McLeodUSA Telecommunications Services** McLeodUSA Technology Park 6400 C Street SW P.O. Box 3177 Cedar Rapids, Iowa 52406-3177 Certificate authority: Qwest exchanges only
5.	**Ionex Communications North** **formerly FirsTel** 5710 LBJ Freeway - Suite 215 Dallas, Texas 75240F Certificate authority: Qwest exchanges only (Acquired by Advanced Communications Group during 1998.) (Acquired by Ionex Telecommunications during 2003.)
6.	**MCIMETRO Access Transmission Services** MCIMETRO 707 17th Street, Suite 3600 Denver, Colorado 80202 Certificate authority: Qwest exchanges only
7.	**WYOCOM** **wyoming.com** **d/b/a Contact Communications** 937 West Main Street Riverton, Wyoming 82501 Certificate authority: Qwest and Sprint/United exchanges only
8.	**ACN Communication Services** 32991 Hamilton Court Farmington Hills, Michigan 48334 Certificate authority: Qwest exchanges only

APPENDIX B

Wyoming Competitive Local Exchange Carriers (CLECs)

as of December 31, 2004

9.	**Preferred Carrier Services** 500 Grapevine Highway Suite 300 Hurst, Texas 76054 Certificate authority: Qwest exchanges only (Acquired by Phones For All during 1998.)
10.	**Talk.com Holding Corp** **d/b/a Talk America** **formerly Tel-Save d/b/a The Phone Company** 12001 Science Drive – Suite 130 Orlando, Florida 32826 Certificate authority: Qwest exchanges only
11.	**WorldCom Communications** 201 Spear Street – 9th Floor San Francisco, California 94105 Certificate authority: Qwest exchanges only
12.	**Silver Star Communications** 104101 Highway 89 Freedom, Wyoming 83120 Certificate authority: Afton and Jackson exchanges of Qwest
13.	**Nova Communications** **formerly Sterling International Funding** **d/b/a 1-800-Reconex a/k/a Ameritel** 9620 S.W. Barbur Blvd. - Suite 330 Portland, Oregon 97219 Certificate authority: Qwest exchanges only
14.	**Western CLEC** **formerly Eclipse Communications** 3650 131st Avenue SE - Suite 400 Bellevue, Washington 98006 Certificate authority: Qwest exchanges only
15.	**Level 3 Communications** 1025 Eldorado Blvd. Broomfield, Colorado 80021 Certificate authority: Qwest exchanges only
16.	**InTTec** subsidiary of **Visionary Communications** P. O. Box 2799 Gillette, Wyoming 82717 Certificate authority: Qwest exchanges only
17.	**DSLnet Communications** 545 Long Wharf Drive - Fifth Floor New Haven, Connecticut 06511 Certificate authority: Qwest exchanges only

APPENDIX B

Wyoming Competitive Local Exchange Carriers (CLECs)

as of December 31, 2004

18.	**Tri Tel** 405 South Fourth Street P. O. Box 350 Basin, Wyoming 82410 Certificate authority: Qwest exchanges only
19.	**New Edge Networks** 3000 Columbia House Blvd. - Suite 106 Vancouver, Washington 98661 Certificate authority: Qwest exchanges only
20.	**All West/Wyoming** 50 West 100 North Kamas, Utah 84036 Certificate authority: Qwest exchanges only
21.	**Quantumshift Communications** **formerly MVX.COM Communications** 100 Rowland Way - Suite 145 Novato, California 94945 Certificate authority: Qwest exchanges only
22.	**ARBROS Communications** **d/b/a Comm South Companies** 6830 Walling Lane Dallas, Texas 75231 Certificate authority: Qwest exchanges only
23.	**CI²** 200 Galleria Parkway - Suite 1550 Atlanta, Georgia 30339 Certificate authority: Qwest exchanges only
24.	**NOW Communications** 711 South Tejon Street - Suite 201 Colorado Springs, Colorado 80903 Certificate authority: Qwest exchanges only
25.	**Universal Access** 100 North Riverside Plaza - Suite 2200 Chicago, Illinois 60606 Certificate authority: Qwest exchanges only
26.	**Reliant Communications** **formerly HJN Telecom** 3235 Satellite Blvd. Building 400 - Suite 300 Duluth, Georgia 30096 Certificate authority: Qwest exchanges only
27.	**CommPartners** 3291 North Buffalo Drive – Suite 8 Las Vegas, Nevada Certificate authority: Qwest exchanges only

APPENDIX B

Wyoming Competitive Local Exchange Carriers (CLECs)

as of December 31, 2004

28.	**United Communications Hub** 225 Lake Avenue - Suite 705 Pasadena, California 91106 Certificate authority: Qwest exchanges only
29.	**360Networks (USA)** 867 Coal Creek Circle - Suite 160 Louisville, Colorado 80027 Certificate authority: Qwest exchanges only
30.	**Dieca Communications** **d/b/a Covad Communications** 3420 Central Expressway Santa Clara, California 95051 Certificate authority: Qwest and Sprint/United exchanges only
31.	**Premiere Network Services** 1510 North Hampton Road - Suite 120 DeSoto, Texas 75115 Certificate authority: Qwest exchanges only
32.	**BT Communications Sales** **formerly Concert Communications Sales** 11440 Commerce Park Drive Reston, Virginia 20191 Certificate authority: Qwest exchanges only
33.	**Z-Tel Communications** 601 South Harbour Island Blvd. – Suite 220 Tampa, Florida 33602 Certificate authority: Qwest exchanges only
34.	**KMC Telecom V** 1755 North Brown Road Lawrenceville, Georgia 30043 Certificate authority: Qwest exchanges only
35.	**Regal Telephone** 1119 West Kent Avenue – Suite J Missoula, Montana 59806 Certificate authority: Qwest exchanges only
36.	**NOS Communications** 4380 Boulder Highway Las Vegas, Nevada 89121 Certificate authority: Qwest exchanges only
37.	**New Access Communications** 120 South 6th Street – Suite 950 Minneapolis, Minnesota 55402 Certificate authority: Qwest exchanges only

38.	**Intrado Communications** 6285 Lookout Road

APPENDIX B

Wyoming Competitive Local Exchange Carriers (CLECs)

as of December 31, 2004

	Boulder, Colorado 80301 Certificate authority: Qwest exchanges only
39.	**Vartec Telecom** 2440 Marsh Lane Carrollton, Texas 75006 Certificate authority: Qwest exchanges only
40.	**KMC Data** 1545 Route 206 – Suite 300 Bedminster, New Jersey 07921 Certificate authority: Qwest exchanges only
41.	**Budget Phone** 6901 West 70th Street Shreveport, Louisiana 71149 Certificate authority: Qwest exchanges only
42.	**ICG Telecom Group** 161 Inverness Drive West Englewood, Colorado 80112 Certificate authority: Qwest exchanges only
43.	**OrbitCom** **formerly VP Telecom** 1701 North Louise Avenue Sioux Falls, South Dakota 57107 Certificate authority: Qwest exchanges only
44.	**Advanced Communications Technology** 60 West Seymour Street Sheridan, Wyoming 82801 Certificate authority: Qwest exchanges only
45.	**iLOKA** **d/b/a Microtech-tel** 6312 South Fiddlers Green Circle - Suite 150N Greenwood Village, Colorado 80111 Certificate authority: Qwest exchanges only
46.	**Qwest Communications Corporation (QCC)** 1801 California Street – Suite 5100 Denver, Colorado 80202 Certificate authority: All Wyoming exchanges
47.	**Tel West Communications** 3701 South Norfolk Street – Suite 300 Seattle, Washington 98118 Certificate authority: Qwest exchanges only
48.	**Comtech21** One Barnes Park South Wallingford, Connecticut 06492 Certificate authority: Qwest exchanges only

49.	**VCI Company** **formerly Vilaire Communications**

APPENDIX B

Wyoming Competitive Local Exchange Carriers (CLECs)

as of December 31, 2004

	7304 Zircon Drive SW Lakewood, Washington 98498 Certificate authority: Qwest exchanges only
50.	**WERCS Communications** 400 East 1st Street Casper, Wyoming 82601 Certificate authority: Qwest exchanges only
51.	**Covista** 721 Broad Street – 2nd Floor Chattanooga, Tennessee 37402 Certificate authority: Qwest exchanges only
52.	**IDT America** 520 Broad Street Newark, New Jersey 07102 Certificate authority: Qwest exchanges only
53.	**XO Communications** 111 East Broadway Salt Lake City, Utah 84111 Certificate authority: Qwest exchanges only
54.	**Computer Network Technology** 6000 Nathan Lane Minneapolis, Minnesota 55442 Certificate authority: Qwest exchanges only
55.	**Granite Telecommunications** 234 Copeland Street Quincy, Massachusetts 02169 Certificate authority: Qwest exchanges only
56.	**Southwestern Bell Communications Services (SBC)** 5850 West Las Positas Blvd. Pleasanton, California 94588 Certificate authority: Qwest exchanges only
57.	**Bullseye Telecom** 25900 Greenfield Road – Suite 330 Oak Park, Michigan 48237 Certificate authority: Qwest exchanges only
58.	**Extreme Media Technologies** 100 North Center Street – Suite 201 Casper, Wyoming 82601 Certificate authority: Qwest exchanges only

APPENDIX C
Wyoming Wholesale Cellular and Personal Communications Service (PCS) Providers Licensed by the Federal Communications Commission

1. **Verizon Communications**
   d/b/a Verizon Wireless
   formerly CommNet Cellular
   8350 East Crescent Parkway - Suite 400
   Greenwood Village, Colorado 80111
   Authorized Service Areas:
   Rural Service Area #1 (System B)
   Rural Service Area #2 (System B)
   Rural Service Area #3 (System A)

2. **Western Wireless**
   d/b/a Cellular One
   11400 S.E. 8th Street - Suite 445
   Bellevue, Washington 98004
   Authorized Service Areas:
   Casper MSA (System A)
   Rural Service Area #2 (System A)
   Rural Service Area #4 (System A)
   Rural Service Area #5 (System A)

3. **Union Telephone Company**
   d/b/a Union Cellular
   P. O. Box 160
   Mountain View, Wyoming 82939
   Authorized Service Area:
   Rural Service Area #3 (System B)

4. **Verizon Communications**
   d/b/a Verizon Wireless
   formerly AirTouch Cellular
   3150 SE Eastgate Way
   Bellevue, Washington 98009
   Authorized Service Areas:
   Casper MSA (System B)
   Rural Service Area #4 (System B)
   Rural Service Area #5 (System B)

5. **MetaComm Cellular Partners**
   d/b/a Cellular One
   190 Parish Drive
   Wayne, New Jersey 07470
   Authorized Service Area:
   Rural Service Area #1 (System A)

APPENDIX C
Wyoming Wholesale Cellular and Personal Communications Service (PCS) Providers Licensed by the Federal Communications Commission

6. **Union Telephone Company (PCS Provider)**
d/b/a Union Cellular
formerly SpectraCom d/b/a PYXIS Communications
P. O. Box 160
Mountain View, Wyoming 82939
Authorized Service Areas:
Basic Trading Area #69
Basic Trading Area #77
Basic Trading Area #375
Counties Served: Washakie, Hot Springs, Fremont, Natrona, Campbell, Albany, Laramie, Johnson, Converse, Platte and Carbon

7. **Union Telephone Company (PCS Provider)**
d/b/a Union Cellular
P. O. Box 160
Mountain View, Wyoming 82939
Authorized Service Areas:
Basic Trading Area #41
Basic Trading Area #369
Basic Trading Area #381
Basic Trading Area #399
Basic Trading Area #411
Counties Served: Big Horn, Crook, Goshen, Lincoln, Niobrara, Park, Sheridan, Sublette, Sweetwater, Uinta, Weston and Yellowstone National Park

8. **Silver Star Communications (PCS Provider)**
d/b/a Silver Star Wireless
d/b/a Valley Wireless
d/b/a Bridger Land Wireless
104101 Highway 89
Freedom, Wyoming 83120
Authorized Service Areas:
Basic Trading Area #202
Basic Trading Area #381
Basic Trading Area #399
Counties Served: Lincoln, Sublette, Sweetwater, Teton and Uinta

Guide to Cellular Service Areas

Area Name	Counties Served
Casper MSA	Natrona
Rural Service Area #1	Park, Big Horn, Washakie, Hot Springs (and Yellowstone Park)
Rural Service Area #2	Weston, Crook, Campbell, Johnson and Sheridan
Rural Service Area #3	Teton, Lincoln, Sublette, Fremont, Carbon, Uinta and Sweetwater
Rural Service Area #4	Albany, Laramie, Platte, Goshen and Niobrara
Rural Service Area #5	Converse

GUIDE TO READING APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

We hope that the explanatory guide below will make your review of the information on Wyoming's telephone exchanges in the following Appendix D more useful and readable.

<table>
<tr><td colspan="4"><u>Name of Exchange</u>
Name of Company Providing Local Facilities-based Service</td></tr>
<tr><td colspan="4">Central Office: details of the local telecommunications system</td></tr>
<tr><td colspan="2">Switch Manufacturer:</td><td colspan="2">By Name</td></tr>
<tr><td colspan="2">Switch Model:</td><td colspan="2">Model Designation (Type: Digital or Analog) and details of any host/remote relationship to another switch.</td></tr>
<tr><td colspan="2">NPA Code:</td><td colspan="2">The primary area code of the exchange and any secondary area codes.</td></tr>
<tr><td colspan="2">Landline NNX Codes:
Wireless NNX Codes:</td><td colspan="2">The first three digits of the local telephone numbers related to the area code (shown in parenthesis) identified for landline and wireless service. This information obtained on www.primeris.com/fonefind</td></tr>
<tr><td>Equal Access IntraLATA:</td><td>Can a customer select the in-state long distance carrier of choice and reach that carrier without dialing extra numbers? (Yes or No)</td><td>Local Number Portability:</td><td>Can a customer switch local telephone service providers and still keep the same telephone number? (Yes or No)</td></tr>
<tr><td>Equal Access InterLATA:</td><td>Can a customer select the interstate long distance carrier of choice and reach that carrier without dialing extra numbers? (Yes or No)</td><td colspan="2"></td></tr>
<tr><td colspan="4">Switch Features Enabled: What special features are available?</td></tr>
<tr><td>Custom:</td><td colspan="3">Basic optional features grouped according to long-established industry standard definition of Custom Calling features</td></tr>
<tr><td>CLASS:</td><td colspan="3">More advanced optional features supported by the Custom Local Area Signaling Service (CLASS) signalling system</td></tr>
<tr><td>Options:</td><td colspan="3">Other advanced options not dependent on CLASS</td></tr>
<tr><td>System:</td><td colspan="3">Facilities/capabilities supporting switch features</td></tr>
<tr><td>EAS:</td><td colspan="3">Extended Area Service A list of exchanges, including the Named Exchange, among which calls are local -- not billed as a long distance calls (including other companies participating in the service)</td></tr>
<tr><td>Interoffice</td><td colspan="3">What facilities connect the Named Exchange to other exchanges?</td></tr>
<tr><td></td><td>Where the connection runs (name of exchange)</td><td colspan="2">Type of connection (fiber, digital or analog)</td></tr>
</table>

Internet Service: Internet Service Providers (ISPs) are part of a dynamic market. Inquire locally to identify ISPs, including local exchange companies and others that may offer service in the exchange. Chambers of Commerce often have up-to-date information.

Remember: **information in BOLD** is something new.

APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

Afton

Qwest Communications, Inc.

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: DMS-100/RSC (Digital) Host Jackson

NPA Code: 307, 208

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 238	Wyocom LLC d/b/a Contact Communications	CLEC
(307) 886	Qwest Communications	RBOC
(208) 225	Qwest Communications	RBOC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 884	Union Cellular	Wireless Provider
(307) 248	Comnet Cellular, Inc	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes

Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	Centron, Call Waiting, Remote Call Forwarding, Call Forwarding, Speed Dialing, Custom Ringing, 3-Way Calling, Call Curfew, Call Data Collection and Transmission Service, Long Distance Alert, TrackLinePlus.
CLASS:	Caller Identification-Name and Number, Caller Identification Number, Calling ID on Call Waiting, Call Rejection, Priority Call, Select Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, 911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711

EAS: Freedom and Alpine (Silver Star Communications - Independent)

Interoffice:

To Freedom	Digital
To Kemmerer	Digital
To Jackson	Digital
To Casper	Digital
To Evanston	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Afton

Silver Star Communications

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: DMS-10 (5.01.01) (Digital)

NPA Codes: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
885	Silver Star Telephone Co.	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**

Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	Short List Speed Calling, Long List Speed Calling, Call Forwarding, Toll Call Forwarding, Remote Call Forwarding, Call Waiting, 3-Way Calling, 2-Party Custom Calling Features, Cancel Call Waiting, Integrated Business Service (Small Centrex), Enhanced Business Service (Large Centrex), Teen Service, Enhanced Voice Mail, Call Forward-Remote Access, Call Forward-Busy, Call Forward DMO Activation, Fax on Demand, Fax Fwd on Demand,

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

	911, 711.
SYSTEM:	Internet Service, Multiple PIC, World Line Card, Switched 56, SD-1, DS-3, ATM, Full SONET, OC-3, Pilot Program VoIP.
Other:	xDSL, **I. P. Video**

EAS: Afton (886 - Qwest exchange), Alpine/Freedom and Tygee, ID
Interoffice:

To Freedom	124 Digital
To Pocatello, ID	via Freedom OC-3

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Albin

RT Communications
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model:
NPA Codes: 307, 308
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 246	RT Communications	Independent
(308) 846	RT Communications	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features/Services Enabled:

Custom Calling/ CLASS Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, E-911 Service, DID, Special Service Circuit – Switched 56, T1, T3, SS7 equipped
Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID, Per Call Blocking, Call Forward No Answer, Call Forward Remote, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other	Voice Messaging, Call Answering, Teleconference PCS Service. xDSL

EAS: Cheyenne, Burns, Carpenter and Pine Bluffs
Interoffice:

To Burns	Digital
To Carpenter	Digital
To Cheyenne	Digital
To Pine Bluffs	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Alpine

Silver Star Communications
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: RSLE 1024 (Digital)
NPA Codes: 307, 208
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 883, 654	Silver Star Telephone Company, Inc –WY	Independent
(307) 886	Qwest Communications	RBOC EAS (Afton, WY)

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

(208) 873, 564	Silver Star Telephone Company, Inc. – Wy.	Independent
(208) 225	Qwest Communications	RBOC EAS (Tygee, ID)

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Short List Speed Calling, Long List Speed Calling, Call Forwarding, Toll Call Forwarding, Remote Call Forwarding, Call Waiting, 3-Way Calling, 2-Party Custom Calling Features, Cancel Call Waiting, Integrated Business Service (Small Centrex), Enhanced Business Service (Large Centrex), Teen Service, Enhanced Voice Mail, Call Forward-Remote Access, Call Forward-Busy, Call Forward DMO Activation
SYSTEM:	Internet Service, Multiple PIC, World Line Card, Switched 56, DS-1, DS-3 ATM, SONET, Pilot program for voice-over IP.
Other:	xDSL, **I. P. Video**

EAS: Afton and Tygee, ID
Interoffice:

To Afton (via Jackson)	OC-3
To Casper (via Jackson)	144 Digital
To Pocatello, ID	OC-3

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Alta

Teton Telecom
Central Office:
Switch Manufacturer: Nortel
Switch Model: HSO/SSO (Digital) (Remote from Freedom Host)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
353	Columbine Telephone d/b/a Teton Telecom	Independent– EAS (Driggs, ID)

Equal Access IntraLATA: No **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Short List Speed Calling, Long List Speed Calling, Call Forwarding, Toll Call Forwarding, Remote Call Forwarding, Call Waiting, 3-Way Calling, 2-Party Custom Calling Features, Cancel Call Waiting, Integrated Business Service (Small Centrex), Enhanced Business Service (Large Centrex)
Options:	Equal Access Feature Group A, Equal Access,
Other:	xDSL, **I. P. Video**

Interoffice:

To Freedom, WY	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Alzada

Range Telephone Cooperative, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 RLCM (Digital)
NPA Codes: 307, 406
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 878	Range Telephone Cooperative, Inc, MT	Independent

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

(406) 828	Range Telephone Cooperative, Inc. MT	Independent

Equal Access IntraLATA: IntraLATA Equal Access Ready
Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	Touch Tone Dialing, Centrex, Call Forwarding, Call Waiting, 3-Way Calling, Speed Calling, Teen Service, Voice Mail, Usage Sensitive Custom Calling, Common Channel Signaling 7, Enhanced 800 Dialing, Call Forward Remote Access, User Programmable Call Forward Don't Answer, Sw 56 Data, Calling Name and Number Delivery, Call Forward Busy, Remote Call Forward, Selective Call Forward, Digital PBX, Caller ID Blocking, Customer Originated Trace, E-911, Automatic Call Back, Automatic Recall, Selective Call Acceptance, Selective Call Rejection, Anonymous Call Rejection, User Transfer, Selective Distinctive Ringing
Other:	xDSL

Interoffice:

To Broadus, MT	Digital
To Billings, MT	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Anschutz Ranch East Plant

All West Communications

Central Office:

Switch Manufacturer: AG Communications System
Switch Model: GTD5

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
479	All West Communications, Inc. – WY	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Calling, **Cancel Call Waiting, Distinctive Ring**
Options:	Distinctive Ringing, **Toll Restrictions, Call Name Delivery, Calling Number Delivery, Auto Call Back**
System:	**Flat Rate, Tone Dialing, PBX Trunks, Multi-line Hunting, DID, Toll Restriction, 911**
Other:	**Internet, xDSL**

Interoffice:

To Cokeville	Digital (Fiber)
To Evanston	Digital (Fiber)

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Arvada

Range Telephone Cooperative, Inc.

Central Office:

Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 RLCM (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
736	Range Telephone Cooperative, Inc. – WY	Independent

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

Equal Access IntraLATA: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Touch Tone Dialing, Centrex, Call Forwarding, Call Waiting, 3-Way Calling, Speed Calling, Teen Service, Voice Mail, Usage Sensitive Custom Calling, Common Channel Signaling 7, Enhanced 800 Dialing, Call Forward Remote Access, User Programmable Call Forward Don't Answer, E-911, Switched 56 Data, Calling Name and Number Delivery, Call Forward Busy, Remote Call Forward, Selective Call Forward, Digital PBX, Caller ID Blocking, Customer Originated Trace, Automatic Call Back, Automatic Recall, Selective Call Acceptance, Selective Call Rejection, Anonymous Call Rejection, User Transfer, Selective Distinctive Ringing
Other:	**xDSL**

Interoffice:

To SE Sheridan	Digital
To Casper	Digital
To Clearmont	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Baggs/Dixon/Savery

Dubois Telephone Company
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 (Digital)
Switch Configuration: HSO/SSO
SSO with Dubois
Switch Generic: 5.04
NPA Codes: 307(WY) 970(CO)
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 383	Dubois Telephone Exchange, Inc.	Independent
(970) 583	Dubois Telephone Exchange, Inc.	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
380	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Calling, Digital Centrex; Enhanced versions of the above, too numerous to list
Options:	Flat Rate Service, Touch Tone Dialing, Private Branch Exchange Trunks, E-911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, 900 Access Blocking, Digital Connectivity
Other:	Local Access Internet, Switched 56, xDSL

Interoffice:

To Rawlins/Cheyenne	Digital/Fiber

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Basin

TCT West, Inc.
Central Office:
Switch Manufacturer: Lucent Technologies
Switch Model: 5ESS-2000*

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

(*Note: Burlington, Frannie-Deaver, Hamilton Dome, Hyattville, Lovell, Meeteetse and Ten Sleep are all served by digital line carrier trunked to the Basin 5ESS-2000 Lucent Technologies digital switch)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
568	TCT West, Inc.	Independent
569	TRI Telephone, Inc.	CLEC
765	TCT West, Inc. (Greybull)	Independent

Equal Access IntraLATA: Capable, 10XXX **Local Number Portability: Yes**

Equal Access InterLATA: Yes

Switch Features Enabled:

Options:	Automatic Call back, Automatic Route Selection, Advanced Services Platform, Call Forwarding all, Automatic Call Distribution, Call Trace customer originated, Call Park, Code Calling answer, Directed Call Pickup, Call Waiting & Cancel, ISDN, Distinctive Ringing Call, Home Intercom, Line Identification name and number, Circular Hunt, Multiple Hunt, Three-way calling, Six way analog conference calling, Consult, Call Transfer, Call Bridging, Attendant Recall, Line Queue, Speed Calling all, Selective Call Rejection, Selective Call acceptance, Restricted Originating, Time, Local Internet Access
System:	Full SONET (ring bus), ATM, TV, Video
Other:	xDSL

EAS: Greybull

Interoffice:

To Casper	Digital
To Greybull	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Big Piney

CenturyTel of Wyoming, Inc.

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: DMS-10 (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
276	CenturyTel of Wyoming, Inc.	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
260	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**

Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	Short List Speed Call, Long List Speed Call, Call Forward, 3-Way Calling, Call Waiting, Cancel Call Waiting, Remote Call Forward, Toll Call Forward, Teen Service, Ring Again, Enhanced 800, Call Forward Remote Access, Centrex; Voice Mail
Options:	Touch Tone Dialing, Toll Restriction, 1+ and 0+ Dialing, Trunk Hunting, , Equal Access, Integrated Business Services, Enhanced Business Services
System:	Local T1, 280 IDS
Other:	**xDSL**

Interoffice:

To Pinedale	Digital
To Cheyenne	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

Boulder
CenturyTel of Wyoming, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 remote off Pinedale switch (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
537	CenturyTel of Wyoming, Inc.	Independent – EAS (Pinedale)

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
231	Comnet Cellular, Inc. –Wyoming	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Short Speed Call, Long Speed Call, Call Forward, 3-Way Calling, Call Waiting, Cancel Call Waiting, Remote Call Forward, Toll Call Forward, Teen Service, Ring Again, Enhanced 800, Call Forward Remote Access, Centrex, Voice Mail
Options:	Touch Tone Dialing, Toll Restriction, 1+ and 0+ Dialing, Trunk Hunting, Wire Maintenance Plan, Equal Access, Integrated Business Services, Enhanced Business Services
System:	Local T1, 280 IDS
Other:	**xDSL**

Interoffice:

To Pinedale	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Buffalo
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Ericsson
Switch Model: AXE/RSS (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
285	Wyocom, LLC d/b/a Contact Communications	CLEC
684	Qwest Communications	RBOC
204	Inttec, Inc.	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
620, 621, 622	Comnet Cellular, Inc. - Wyoming	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron Service, Remote Call Forwarding
CLASS:	Caller Identification-Name and Number, Caller Identification Number, Calling ID on Call Waiting, Call Rejection, Priority Call, Select Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured or Flat Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711
Other	**xDSL**

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

Interoffice:

To Casper	Digital
To Sheridan	Digital
To Story	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Burlington

Tri County Telephone Association, Inc.

Central Office:

Switch Manufacturer: Lucent Technologies

Switch Model: 5ESS-2000 to Basin

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
762	Tri-County Telephone Association, Inc.	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**

Equal Access InterLATA: Yes

Switch Features Enabled:

Options:	Automatic Call back, Automatic Route Selection, Advanced Services Platform, Call Forwarding all, Automatic Call Distribution, Call Trace customer originated, Call Park, Code Calling answer, Directed Call Pickup, Call Waiting & Cancel, ISDN, Distinctive Ringing Call, Home Intercom, Line Identification name and number, Circular Hunt, Multiple Hunt, Three-way calling, Six way analog conference calling, Consult, Call Transfer, Call Bridging, Attendant Recall, Line Queue, Speed Calling all, Selective Call Rejection, Selective Call acceptance, Restricted Originating, Time, Local Internet Access
System:	Full SONET (ring bus), ATM, TV, Video.
Other:	xDSL

Interoffice:

To Casper	Digital
To Basin	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Burns

RT Communications

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: RSC Remote off of Pine Bluffs DMS 10

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
547	RT Communications	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**

Equal Access InterLATA: Yes

Switch Features/Services Enabled:

Services:	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, E-911 Service, DID, Special Service Circuit – Switched 56, T1, T3 SS7 equipped
Custom Calling/CLASS Features Enabled	Caller Identification-Name and Number, Caller Identification Number, Calling ID on Call Waiting, Call Rejection, Priority Call, 3-Way Calling, 8 Speed Calling,Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

	Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other	Voice Messaging, Call Answering, Teleconference, xDSL

EAS: Cheyenne, Albin, Carpenter and Pine Bluffs
Interoffice:

To Albin	Digital
To Carpenter	Digital
To Cheyenne	Digital
To Pine Bluffs	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Carpenter

RT Communications
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: **RLCM Remote off of Pine Bluffs DMS 10**
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
649	RT Communications	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features/Services Enabled:

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, E-911 Service, DID, Special Service Circuit – Switched 56, T1, T3 SS7 equipped
Custom Calling/CLASS Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other	Voice Messaging, Call Answering, Teleconference, **xDSL**

EAS: Cheyenne, Burns, Albin and Pine Bluffs
Interoffice:

To Albin	Digital
To Burns	Digital
To Cheyenne	Digital
To Pine Bluffs	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Casper

Qwest Communications, Inc.
Central Office:
Switch Manufacturer: AT&T
Switch Model: 5ESS (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
215	AT&T – Local – WY	CLEC

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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224	Sprint Communications	CLEC
227	WyoCom LLC, d/b/a Contact Communications	CLEC
232, 233, 234, 235, 237, 261, 265, 266, 268, 472, 473, 577, 995	Qwest Communications	RBOC
205	Inttec, Inc.	CLEC
462	Level 3	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
230	Versatel Communications	Wireless Provider
267, 797	Western Wireless Corporation	Wireless Provider
377	Union Cellular	Wireless Provider
277	Comnet Cellular	Wireless Provider
258, 259, 262	**Verizon**	**Wireless Provider**

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Custom Ringing, 3-Way Calling, Call Waiting, Call Forwarding, Speed Call, IntraCall, Centron Service, Single Number Service, Remote Call Forwarding, Remote Access Forwarding, Schedule Forwarding, Business Continuation Routing, Call Curfew, Call Data Collection and Transmission, Long Distance Alert, TrackLine Plus
CLASS:	Caller Identification-Name and Number, Caller Identification Number, Calling ID on Call Waiting, Call Rejection, Priority Call, Select Call Forwarding, Last Call Return, Continuous Redial, SS-7, Do Not Disturb, No Solicitation, Security Screen, Selective Call Waiting.
Options:	Measured or Flat Rate service, Touch Tone Dialing, Private Branch Exchange Trunks, Equal Access, E-911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, Voice Messaging, Frame Relay, PCS wireless, 211, 311, 511, 711, ATM, ISDN BRI, ISDN PRI
Other:	xDSL

EAS: Glenrock
Interoffice:

To Glenrock	Digital
To Buffalo	Digital Fiber
To Midwest	Digital
To Shoshoni	Digital
To Wright	Digital Fiber
To Cody	Digital Fiber
To Gillette	Digital Fiber
To Sheridan	Digital Fiber

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Cheyenne
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: AT&T
Switch Model: 5ESS (Digital)
NPA Code: 307, 970

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Landline NNX Codes:

NNX	Telephone Company	TelCo Type
222, 223	Sprint Communications Company, L.P. – Wy	CLEC
243	Wyocom LLC d/b/a Contact Communications	CLEC
432, 433, 632, 633, 634, 635, 637, 638, 662, 771, 772, 773, 775, 777, 778, 996	Qwest Communications	RBOC
757	AT&T Local	CLEC
(970) 662	Qwest Communications	RBOC
207	Inttec, Inc.	CLEC
459	Level 3	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
220, 920	Voice Stream Wireless Corporation	Wireless Provider
221, **256**	**Sprint PCS**	Wireless Provider
421, 630, 631	**Verizon**	Wireless Provider
477	Union Cellular	Wireless Provider
640	Western Wireless Corporation	Wireless Provider
650	Nextel Communications	Wireless Provider
214	Comnet Cellular	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	IntraCall, Custom Ringing, 3-Way Calling, Call Waiting, Call Forwarding, Speed Calling, Centron Service, Single Number Service, Remote Call Forwarding, Remote Access Forwarding, Scheduled Forwarding, Business Continuation Routing, Call Curfew, Call Data Collection and Transmission, Long Distance Alert, TrackLine Plus, Local Area Network Switching Service
CLASS:	Caller Identification - Name and Number, Caller Identification Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7, Do Not Disturb, No Solicitation, Security Screen, Selective Call Waiting
Options:	Flat Rate Service, Measured Service, Private Branch Exchange Trunks, Equal Access, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, Voice Messaging, E-911, Frame Relay, 211, 311, 511, 711, ATM, ISDN BRI, ISDN PRI.
Other:	xDSL

EAS: Albin, Burns, Carpenter and Pine Bluffs (RT Communications - Independent)
Interoffice:

To Glendo	Digital
To Laramie	Digital
To Pine Bluffs	Digital
To Casper	Digital fiber OC48

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Chugwater
Chugwater Telephone Company
Central Office:
Switch Manufacturer: Redcom
Switch Model: MDX 384 (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
422	Chugwater Telephone Co.	Independent

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Equal Access IntraLATA: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Standard Digital offerings plus Custom Calling Features
Options:	911, 711, **511**

EAS: To Qwest exchanges of Wheatland and Glendo
Interoffice:

To Cheyenne	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Clark
Project Telephone Company
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 REM (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
341	Project Telephone Company (Wyola, MT)	Independent
645	Project Telephone Company, Inc. (Clark)	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
884	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Custom Calling Services, Short List Speed Calling, Long List Speed Calling, Call Forwarding, 3-Way Calling, Call Waiting, Cancel Call Waiting, Remote Call Forwarding, Toll Call Forwarding, 2-Party Custom Calling, Single Party Revertive Calling Station Options
CLASS:	All
SYSTEM:	Automatic Digital Carrier Module, Digitone, Satellite Switching Office, Five Day AMA Backup, Dial Pulse, internet dialup, SS-7, FC digital loop.
Other:	xDSL

Interoffice:

To Billings, MT	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Clearmont
Range Telephone Cooperative, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 RLCM (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
758	Range Telephone Cooperative, Inc.	Independent

Equal Access IntraLATA: Yes
Equal Access InterLATA: Yes

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Switch Features Enabled:

Custom:	Touch Tone Dialing, Centrex, Call Forwarding, Call Waiting, 3-Way Calling, Speed Calling, Teen Service, Voice Mail, Usage Sensitive Custom Calling, Common Channel Signaling 7, Enhanced 800 Dialing, Call Forward Remote Access, User Programmable Call Forward Don't Answer, E-911, Sw 56, Calling Name and Number Delivery, Call Forward Busy, Remote Call Forward, Selective Call Forward, Digital PBX, Caller ID Blocking, Customer Originated Trace, Automatic Call Back, Automatic Recall, Selective Call Acceptance, Selective Call Rejection, Anonymous Call Rejection, User Transfer, Selective Distinctive Ringing, 711
Other:	xDSL

Interoffice:

To SE Sheridan	Digital
To Arvada	Digital
To Casper	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Cody

Qwest Communications, Inc.

Central Office:

Switch Manufacturer: Ericsson
Switch Model: AXE (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
263	Wyocom, LLC d/b/a Contact Communications	CLEC
527, 578, 587	Qwest Communications	RBOC
206	Inttec, Inc.	CLEC
213	Level 3	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
250, 269, 272	Comnet Cellular, Inc. - Wyoming	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron Service, Remote Call Forwarding
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Call Rejection, Caller ID On Call Waiting, Priority Call, Selective Call Forwarding; Last Call Return, Continuous Redial, SS-7
Options:	Measured or Flat Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 911, 211, 311, 511, 711, ATM, Frame Relay
Other:	xDSL

Interoffice:

To Basin	Digital
To Casper	Digital
To Lovell	Digital
To Powell	Digital
To Worland	Digital

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Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Cokeville
All West Communications

Central Office:
Switch Manufacturer: AG Communications Systems
Switch Model: GTD-5 Remote

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
279	All West Communications	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
270	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Calling, BETRS
Options:	Measured or Flat Rate Service, Tone Dialing, Private Branch Exchange Trunks, Equal Access, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, E-911, Internet, Cancel Call Waiting, Distinctive Ringing
System:	SONET NEXT OC48 capability: telephone services, ISP.
Other:	xDSL

Interoffice:

To Randolph UT	Digital (Fiber)	1) DS3	Radio 8)DS1
To Evanston WY	Digital (Fiber)	1) DS3	Radio 8)DS1

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Crowheart
Dubois Telephone Exchange, Inc.

Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: RSLM (Digital)
Switch Configuration: Remote off Dubois

NPA Code: 307 (WY)

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
486	Dubois Telephone Exchange, Inc.	Independent

Equal Access IntraLATA: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Calling, Digital Centrex; Enhanced versions of the above, too numerous to list
Options:	Flat Rate Service, Touch Tone Dialing, Private Branch Exchange Trunks, E-911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, 900 Access Blocking, Local Access Internet
Other:	Voice Mail, Switched 56, xDSL

EAS: Dubois, Digital Radio

Interoffice:

To Dubois	Digital Radio

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To Riverton	Digital Radio
To Lander	Digital Radio

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Daniel

CenturyTel of Wyoming, Inc.

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: DMS-10 remote off Pinedale switch (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
859	CenturyTel of Wyoming, Inc.	Independent – EAS (Pinedale)

Equal Access IntraLATA: Yes **Local Number Portability: Yes**

Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	Short Speed Call, Long Speed Call, Call Forward, 3-Way Calling, Call Waiting, Cancel Call Waiting, Remote Call Forward, Toll Call Forward, Teen Service, Ring Again, Enhanced 800, Call Forward Remote Access, Centrex, Voice Mail
Options:	Touch Tone Dialing, Toll Restriction, 1+ and 0+ Dialing, Trunk Hunting, Wire Maintenance Plan, Equal Access, Integrated Business Services, Enhanced Business Services
System:	Local T1, 280 IDS.
Other:	**xDSL**

Interoffice:

To Pinedale	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Dayton-Ranchester

Qwest Communications, Inc.

Central Office:

Switch Manufacturer: Ericcson

Switch Model: AXE/RSS (Digital)

NPA Code: 307, 406

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 655	Qwest Communications	RBOC-EAS (Sheridan)
(406) 659	Qwest Communications	RBOC-EAS (Sheridan)

Equal Access IntraLATA: Yes Local Number Portability: Yes

Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	3 Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron Service
CLASS:	Caller Identification – Name and Number, Caller Identification Number, Calling ID on Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured or Flat Rate Service, Private Branch Exchange Trunks, Equal Acces, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711, Frame Relay

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Interoffice:

To Casper	Digital
To Sheridan	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Decker
Range Telephone Cooperative, Inc.

Central Office:

Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 RLCM (Digital)

NPA Codes: 307, 406

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 750	Range Telephone Cooperative, Inc	Independent
(406) 757	Range Telephone Cooperative, Inc. – MT.	Independent

Equal Access IntraLATA: Yes
Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	Touch Tone Dialing, Centrex, Call Forwarding, Call Waiting, 3-Way Calling, Speed Calling, Teen Service, Voice Mail, Usage Sensitive Custom Calling, Common Channel Signaling 7, Enhanced 800 Dialing, Call Forward Remote Access, User Programmable Call Forward Don't Answer, E-911, Switch 56, Calling Name and Number Delivery, Call Forward Busy, Remote Call Forward, Selective Call Forward, Digital PBX, Caller ID Blocking, Customer Originated Trace, Automatic Call Back, Automatic Recall, Selective Call Acceptance, Selective Call Rejection, Anonymous Call Rejection, User Transfer, Selective Distinctive Ringing
Other:	xDSL

Interoffice:

To Casper	Digital
To SE Sheridan	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Douglas
Qwest Communications, Inc.

Central Office:

Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
358	Qwest Communications	RBOC
368	Wyocom LLC d/b/a Contact Communications	CLEC
208	Inttec, Inc.	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
351, 624	Western Wireless Corporation – WY	Wireless Provider
359	**Verizon**	Wireless Provider
357	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes

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Switch Features Enabled:

Custom:	Call Forwarding, IntraCall, Speed Calling, Call Waiting, Centron Service, 3-Way Call, Custom Ringing, Long Distance Alert, Remote Call Forwarding
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Call Rejection, Calling ID On Call Waiting, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Flat Rate Service, Measured Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Toll Restriction, Direct Inward Dialing, Digital Connectivity, 911, 211, 311, 511, 711
Other	**xDSL**

Interoffice:

To Casper	Digital
To Glendo	Digital
To Glenrock	Digital
To Lusk	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Dubois
Dubois Telephone Exchange, Inc.

Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 (Digital)
Switch Configuration: HSO/SSO
HSO for Baggs (SSO)
HSO for Crowheart (Remote)
Switch Generic: 5.04

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
455	Dubois Telephone Exchange, Inc.	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
450	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Calling, Digital Centrex; Enhanced Call Waiting, Enhanced Call Forwarding, Distinctive ringing, Automatic Call Back
CLASS/System:	Wireless and DSC trial. ISP planned
Options:	Flat Rate Service, Touch Tone Dialing, Private Branch Exchange Trunks, E-911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, 900 Access Blocking, Dial Local Internet Access, Digital Connectivity
Other:	Voice Mail, Switched 56, xDSL

EAS: Crowheart by Digital Radio

Interoffice:

To Casper	Digital Radio

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

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Edgemont
Golden West Telecommunications Cooperative, Inc.

Central Office:
Switch Manufacturer: NTI
Switch Model: DMS-10 (Digital) - Remote

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
663	Golden West Telephone Cooperative, Inc.	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	DID, Multi Hunt, Toll Restriction, Speed Calling, 3-Way Calling, Call Waiting, Digital Connectivity
CLASS:	Selective Call Acceptance, Call Forwarding, Automatic Call Back, Automatic Recall, Call Forward Busy, Call Forward No Answer, Selective Call Rejection
Options:	Flat rated service, Tone Dial, PBX Trunks, 911
CLASS/System	ATM, FRS, Nortel.
Other:	xDSL

Interoffice:

To Sioux Falls, SD	Digital	All interoffice facilities are fiber based

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Elk Mountain/Shirley Basin
Union Telephone Company

Central Office:
Switch Manufacturer: Nortel (Northern Telecom)
Switch Model: Elk Mountain, RLCM (Remote Line Concentrated Module)
Shirley Basin, Digital Direct trunks to Elk Mountain

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
348	Union Telephone Company (Elk Mountain)	Independent
356	Union Telephone Company (Shirley Basin)	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:
Custom: Options:

Custom:	Tone Dialing, PBX Trunks, 911, Toll Restriction, DID, Multi-line Hunt, 900 Access Blocking, Switched 56, Centrex, SS7, Enable Enhance 800.
CLASS:	**Flat rate calling, Call Forward Busy, Call Forward No Answer, Caller ID, Automatic Call Distribution, Remote Call Forward, Selective Call Forward and Rejection Caller ID Blocking.**
Options:	Voice Mail
Other:	xDSL

Interoffice:

To Encampment	Digital
To Shirley Basin	Digital
To Rawlins	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

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Encampment
Union Telephone Company
Central Office:
Switch Manufacturer: Nortel (Northern Telecom)
Switch Model: RSCS (Remote Switching Center - SONET)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
327	Union Telephone Company	Independent

Equal Access IntraLATA: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Tone Dialing, PBX Trunks, 911 enabled, Toll Restriction, Direct Inward Dialing, Multi-line Hunt, 900 Access Blocking, Switched 56, Centrex, Enable Enhanced 800.
Class:	Caller ID Blocking, Cancel Call Waiting, Call Waiting, Call Forward, 3 Way Calling, Speed Calling, Call Forward Busy, Call Forward No Answer, Caller ID, Automatic Call Distribution, Remote Call Forward, Selective Call Forward and Rejection.
Options:	Local Internet Access by Union, Voice Mail
Other:	xDSL

Interoffice:

To Mountain View	Digital microwave
To Rawlins	Digital microwave
To Saratoga	Digital fiber
To Hanna	Digital microwave
To Rock River	Digital microwave
To Elk Mountain	Digital microwave

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Evanston
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Ericsson
Switch Model: AXE 10 (Digital)
NPA Code: 307, 435, 801
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 384	Wyocom, LLC d/b/a Contact Communications	CLEC
(307) 444, 497	All West Communications, Inc.	Independent
(307) 783, 789	Qwest Communications	RBOC
(435) 289	Qwest Communications	RBOC
(801) 289	Winstar Wireless, Inc. – UT	CLEC
(307) 209	InTTec, Inc.	CLEC
(307) 255	Elec	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 677, 678, 679	Comnet Cellular, Inc. – WY.	Wireless Provider

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

(307) 799	Union Cellular	Wireless Provider
(801) 289	Winstar Wireless, Inc. – UT	CLEC

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3 Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron Service, Remote Call Forwarding
CLASS:	Caller Identification - Name and Number, Caller Identification Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured of Flat Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711, 911
Other:	xDSL

Interoffice:

To Kemmerer	Digital
To Cheyenne	Digital
To Cokeville	Digital
To Green River/Rock Springs	Digital
To Jackson	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Farson/Eden

CenturyTel of Wyoming, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10, (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
273	CenturyTel of Wyoming, Inc.	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
280	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Short Speed Call, Long Speed Call, Call Forward, 3-Way Calling, Call Waiting, Cancel Call Waiting, Remote Call Forward, Toll Call Forward, Teen Service;
Options:	Flat Rate Service, Touch Tone Dialing, Private Branch Exchange Trunks, Integrated Services, Enhanced Business Service
System:	Local T1, 280 IDS

Interoffice:

To Riverton	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Frannie-Deaver

TCT West, Inc.
Central Office:
Switch Manufacturer: Lucent Technologies
Switch Model: 5ESS-2000

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NPA Codes: 307, 406
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 664	TCT West, Inc.	Independent
(406) 764	TCT West, Inc.	Independent

Equal Access IntraLATA: Capable, 10XXX **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Options:	Automatic Call back, Automatic Route Selection, Advanced Services Platform, Call Forwarding all, Automatic Call Distribution, Call Trace customer originated, Call Park, Code Calling answer, Directed Call Pickup, Call Waiting & Cancel, ISDN, Distinctive Ringing Call, Home Intercom, Line Identification name and number, Circular Hunt, Multiple Hunt, Three-way calling, Six way analog conference calling, Consult, Call Transfer, Call Bridging, Attendant Recall, Line Queue, Speed Calling all, Selective Call Rejection, Selective Call Acceptance, Restricted Originating, Time, Local Internet Access
SYSTEM:	Full SONET (ring bus), ATM, TV, Video
Other:	xDSL

Interoffice:

To Basin	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Freedom
Silver Star Communications
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 5.01.01 (409.XX) (Digital) & **Tekelec Softswitch**
NPA Codes: 307, 208
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 654, 883, 885, 886	Silver Star Telephone Company, Inc.	Independent
(208) 564, 873	Silver Star Communications, Inc.	Ind. EAS (Afton, Wy.)

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 890	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Short List Speed Calling, Long List Speed Calling, Call Forwarding, Toll Call Forwarding, Remote Call Forwarding, Call Waiting, 3-Way Calling, 2-Party Custom Calling Features, Cancel Call Waiting, Integrated Business Service (Small Centrex), Enhanced Business Service (Large Centrex), Teen Service, Enhanced Voice Mail, Call Forward-Remote Access, Call Forward-Busy, Call Forward DMO Activation, Fax on Demand, Fax Fwd on Demand, E911
SYSTEM:	Internet Service, Multiple PIC, World Line Card, Switched 56, DS-1, DS-3, ATM, FRS, OC-48 System, SONET (full)
Other:	XDSL, **I. P. Video**

EAS: Afton and Tygee, ID
Interoffice:

To Afton (via Jackson)	OC-48

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To Casper (via Jackson)	144 Digital
To Boise, ID (via Wayan, ID)	48 Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Gas Hills
RT Communications
Central Office:
Switch Manufacturer: **Northern Telecom**
Switch Model: Remote Star off of **Worland** DMS 100
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
457	RT Communications	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features/Services Enabled:
Switch Features/Services Enabled:

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, E-911 Service, DID, Special Service Circuit – Switched 56, T1, T3 SS7 equipped
Custom Calling/CLASS Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other	Voice Messaging, Call Answering, Teleconference

Interoffice:

To Shoshoni - Worland	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Gillette
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
445	Wyocom LLC d/b/a Contact Communications	CLEC
682, 685, 686, 687	Qwest Communications	RBOC
210	Inttec, Inc.	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
567	Union Cellular	Wireless Provider
660, 680	Western Wireless Corporation – WY.	Wireless Provider
670, 681, 689	Comnet Cellular, Inc. – WY.	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Call Forwarding, Call Waiting, 3-Way Call, Speed Dialing, IntraCall, Centron, Custom Ringing, Long Distance Alert, Remote Call Forwarding

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, 911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, Frame Relay, ATM, 211, 311, 511, 711, ISDN PRI
CLASS	Call Forwarding, lst Call Return, Continuous Redial, SS-7
System:	Digital Cross Connects DS-1 to DS-1 Caller Identification,-Name and Number, Caller Identification Number, Calling ID and Call Waiting, Call Rejection, Priority Call, Selective
Other:	xDSL

EAS: Wright
Interoffice:

To Casper	Digital
To Wright	Digital
To Recluse	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Glendo

Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100/RSC (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
735	Qwest Communications	RBOC

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Call Forwarding, Speed Call, Call Waiting, Centron Services, 3 Way Calling, Intracall, Remote Call Forwarding, Custom Ringing, Long Distance Alert
CLASS:	Caller Identification - Name & Number, Calling ID On Call Waiting, Caller Identification - Number, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Flat Rate Service, Measured Rated Service, Private Branch Exchange Trunks, Multi-line Hunting, Toll Restriction, Direct Inward Dialing, Digital Connectivity, 211, 311, 511, 711, 911

EAS: Wheatland, Chugwater
Interoffice:

to Lusk	Digital
to Casper	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Glenrock

Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 (Digital, remote off Douglas)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
436	Qwest Communications	RBOC

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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Wireless NNX Codes:

438	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Call Forwarding, IntraCall, Speed Calling, Call Waiting, Centron Services, 3- Way Calling, Remote Call Forwarding, Custom Ringing, Long Distance Alert
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Flat Rate Service, Measured Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Toll Restriction, Direct Inward Dialing, Digital Connectivity, 211, 311, 511, 711, 911, Frame Relay

EAS: Casper
Interoffice:

To Casper	Digital
To Douglas	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Green River
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Ericsson
Switch Model: AXE -10 (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
297	Uintah Basin Electric	Independent
478	Wyocom LLC d/b/a Contact Communications	CLEC
872, 875	Qwest Communications	RBOC
244	InTTec, Inc.	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
870	Union Cellular	Wireless Provider
871	Comnet Cellular, Inc. – WY.	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron Service, Remote Call Forwarding
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, E-911, Digital Connectivity, Multi-line Hunting, Toll Restriction, Frame Relay, 211, 311, 511, 711
Other:	xDSL

Interoffice:

To Evanston	Digital
To Rock Springs	Digital
To Cheyenne	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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Greybull
TCT West, Inc.
Central Office:
Switch Manufacturer: Lucent Technologies
Switch Model: 5ESS-2000 [Basin]
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
568, 765	TCT West, Inc. (Basin, Wy.)	Independent

Equal Access IntraLATA: Capable, 10XXX **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Options:	Automatic Call back, Automatic Route Selection, Advanced Services Platform, Call Forwarding all, Automatic Call Distribution, Call Trace customer originated, Call Park, Code Calling answer, Directed Call Pickup, Call Waiting & Cancel, ISDN, Distinctive Ringing Call, Home Intercom, Line Identification name and number, Circular Hunt, Multiple Hunt, Three-way calling, Six way analog conference calling, Consult, Call Transfer, Call Bridging, Attendant Recall, Line Queue, Speed Calling all, Selective Call Rejection, Selective Call Acceptance, Restricted Originating, Time, Local Internet Access
System:	Full SONET (ring bus), ATM, TV, Video.
Other:	xDSL

EAS: Basin
Interoffice:

To Basin	Digital
To Casper	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Guernsey
Sprint Communications
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 RSC (Digital, remote off Scottsbluff, NE)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
836	United Telephone Co. of the West – Wy. d/b/a Sprint	Independent

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Call Waiting; Call Forwarding, Three-way Calling, Speed Calling 8, Speed Calling 30, Directory Number Transfer, Call Forwarding-Busy, Call Forwarding-No Answer, Remote Call Forwarding, Hot line/Warm Line, Intercom, Signal Ring
CLASS:	Return Call, Caller ID with Name, Anonymous Call Rejection, Repeat Dialing, Selective Call Forward, Selective Call Rejection, Selective Call Ring
Options:	ACD, Business Premise Wiring, CCS7, Channel Banks, Data Service Units, Data Terminals, Digital Central Office, Digital Data Service, DS0, DS1 Clear Channel, E-911, LAN Networks, Modems, Other LAN Equipment, Residential Premise Wiring, Routers, School Premise Wiring, Switched 56, T-1 Multiplexers, Telephone Sets, Touch Tone Dialing, UCD, Voice Mail, Centrex offering, Fractional T1 & Term Discounts, Special Access, Internet, ISDN

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

System:	SONET OC48
Other:	xDSL

EAS: Torrington, LaGrange, West Lyman and Lingle
Interoffice:

To Morrill	Digital
To Scottsbluff	Digital
To Torrington	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Hamilton Dome

Tri County Telephone Association, Inc.
Central Office:
Switch Manufacturer: Lucent Technologies
Switch Model: 5ESS-2000
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
864	RT Communications (Thermopolis)	Independent
867	Tri-County Telephone Association, Inc.	Independent

Equal Access IntraLATA: Capable, 10 XXX **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features enabled:

Enabled:	Automatic Call back, Automatic Route Selection, Advanced Services Platform, Call Forwarding all, Automatic Call Distribution, Call Trace customer originated, Call Park, Code Calling answer, Directed Call Pickup, Call Waiting & Cancel, ISDN, Distinctive Ringing Call, Home Intercom, Line Identification name and number, Circular Hunt, Multiple Hunt, Three-way calling, Six way analog conference calling, Consult, Call Transfer, Call Bridging, Attendant Recall, Line Queue, Speed Calling all, Selective Call Rejection, Selective Call acceptance, Restricted Originating, Time, Local Internet Access
System:	Full SONET (ring bus), ATM, TV, Video.
Other:	xDSL

EAS: Thermopolis
Interoffice:

To Thermopolis	Digital
To Casper	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Hanna

Union Telephone Company
Central Office:
Switch Manufacturer: Nortel (Northern Telecom)
Switch Model: RLCM (Remote Line Concentrator Module)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
325	Union Telephone Company	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
339	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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Equal Access InterLATA: Yes
Switch Features Enabled:

Enabled:	Flat Rate Calling, Tone Dialing, PBX Trunks, 911
Custom:	Toll Restriction, DID, Multi-line Hunt, 900 Access Blocking, Switched 56, Centrex, SS7 enable, Enhanced 800.
CLASS:	**Caller ID, Cancel Call Waiting, Caller ID Blocking, Call Waiting, Call Forward, 3-way Calling, Speed Calling, Call Forward Busy, Call Forward No Answer, Automatic Call Distribution, Remote Call Forward, Selective Call Forward and Rejection.**
Options:	Internet Access by Union, Voice Mail
Other:	xDSL

Interoffice:

To Mountain View	Digital microwave
To Saratoga	Digital microwave

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Hulett
RT Communications
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: RSC Remote off NewCastle DMS 10
NPA Codes: 307, 406
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 467	RT Communications	Independent
(406) 767	RT Communications, Inc.	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features/Services Enabled:

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, 911 Service, DID, (E-911 capable) Special Service Circuit – Switched 56, T1, T3 SS7 equipped
Custom Calling/CLASS Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other	Voice Messaging, Call Answering, Local Internet Access, Teleconference, **xDSL**

Interoffice:

To Newcastle	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Hyattville
Tri County Telephone Association, Inc.
Central Office:
Switch Manufacturer: Lucent Technologies
Switch Model: 5ESS-2000
Switch Location: Basin, WY, via digital line carrier from Hyattville
NPA Code: 307

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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Landline NNX Codes:

NNX	Telephone Company	TelCo Type
366	Tri-County Telephone Association (Ten Sleep)	Independent
469	Tri-County Telephone Association (Hyattville)	Independent

Equal Access IntraLATA: Capable, 10XXX **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Options:	Automatic Call back, Automatic Route Selection, Advanced Services Platform, Call Forwarding all, Automatic Call Distribution, Call Trace customer originated, Call Park, Code Calling answer, Directed Call Pickup, Call Waiting & Cancel, ISDN, Distinctive Ringing Call, Home Intercom, Line Identification name and number, Circular Hunt, Multiple Hunt, Three-way calling, Six way analog conference calling, Consult, Call Transfer, Call Bridging, Attendant Recall, Line Queue, Speed Calling all, Selective Call Rejection, Selective Call Acceptance, Restricted Originating, Time, Local Internet Access
System:	Full SONET (ring bus), ATM, TV, and Video.
Other:	xDSL

EAS: Ten Sleep
Interoffice:

To Basin	Digital
To Casper	Digital
To Ten Sleep	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Jackson
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
522	Wyocom LLC d/b/a Contact Communications	CLEC
732, 733, 734, 739	Qwest Communications	RBOC
200	Level 3	CLEC
201	Sprint	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
203	Sprint Spectrum ID	PCS
413	Edge Wireless	Wireless Provider
690, 691, 699	Comnet Cellular, Inc.	Wireless Provider
730, 740	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	IntraCall, Centron, Call Waiting, Call Forwarding, Speed Dialing, Custom Ringing, 3-Way Calling, Remote Call Forwarding, Long Distance Alert
CLASS:	Caller Identification - Name and Number, Caller Identification Number, Calling ID on Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, E-911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, Frame Relay, ISDN BRI, 211, 311, 511, 711, ISDN PRI, ATM

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

Other:	xDSL

EAS: Moran

Interoffice:

To Afton	Digital
To Casper	Digital
To Moran	Digital
To Freedom/Alpine	Digital
To Riverton	Radio (3 DS3's)
To Evanston	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Jeffrey City

RT Communications

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: Remote off of **Worland** DMS 100

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
544	RT Communications	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type

Equal Access IntraLATA: Yes **Local Number Portability: Yes**

Equal Access InterLATA: Yes

Switch Features/Services Enabled:

Services:	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, E-911 Service, DID Special Service Circuit – Switched 56, T1, T3 SS7 equipped
Custom Calling/CLASS Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall,Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other:	Voice Messaging, Call Answering, Teleconference.

Interoffice:

To Shoshoni – Worland	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Kaycee

RT Communications

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: DMS-10 (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
738	RT Communications, Inc.	Independent

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Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features/Services Enabled:

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, E-911 Service, DID Special Service Circuit – Switched 56, T1
Custom Calling/CLASS Features Enabled	(Services requiring SS7 local only) 3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Number Delivery, Caller ID Per Line Blocking, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Warm Line, Teen Line, Ring Again, Call Transfer
Other:	Voice Messaging, Teleconference, xDSL

Interoffice:

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Kemmerer
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Ericsson
Switch Model: AXE/RSS (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
535, 563	Wyocom LLC d/b/a Contact Communications	CLEC
828, 877	Qwest Communications	RBOC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
727	Union Cellular	Wireless Provider
829	Comnet Cellular, Inc. – Wy.	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron Service, Remote Call Forwarding
CLASS:	Caller Identification – Name and Number, Caller Identification Number, Calling ID on Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured or Flat Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711, 911
Other	**xDSL**

Interoffice:

To Afton	Digital
To Moran	Digital
To Cheyenne	Digital
To Alpine	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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LaBarge
Union Telephone Company
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: RLCM (Remote Line Concentrator Module)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
386	Union Telephone Company – Wy.	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
390	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	PBX Trunks, 911 enabled, Tone Dialing, Toll Restriction, DID, Multi-line Hunt, 900 Access Blocking, Switched 56, Centrex, SS7 enabled, Enhanced 800.
CLASS:	**Cancel Call Waiting, Call Waiting, Call Forward, 3 Way Calling, Speed Calling, Call Transfer, Call Forward Busy, Call Forward No Answer, Caller ID, Automatic Call Distribution, Remote Call Forward, Call Forward and Rejection, Caller ID Blocking.**
Options:	Voice Mail,
Other:	xDSL

Interoffice:

To Mountain View	Digital microwave
To Rock Springs	Digital microwave

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

LaGrange
Sprint Communications
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 **RLCM** (Digital, remote off Scottsbluff, NE)
NPA Code: 307, 308
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 834	United Telephone Company of the West d/b/a Sprint	Independent
(308) 838	United Telephone Company of the West d/b/a Sprint	Independent

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Call Waiting, Call Forwarding, Three-way Calling, Speed Calling 8, Speed Calling 30, Directory Number Transfer, Call Forwarding-Busy, Call Forwarding-No Answer, Remote Call Forwarding, Hot line/Warm line Intercom, Signal Ring
CLASS:	Return Call, Caller ID with Name, Anonymous Call Rejection, Repeat Dialing, Selective Call Forward, Selective Call Rejection, Selective Call Ring
Options:	Business Premise Wiring, Channel Banks, Data Service Units, Data Terminals, Digital Data Service, DS0, DS1 Clear Channel, LAN Networks, Modems, Other LAN Equipment, Residential Premise Wiring, Routers, School Premise Wiring, T-1 Multiplexers, Telephone sets, Touch Tone Dialing, Fractional T1 and Term Discounts - Special Access Services, Internet, CCS7, Switched 56, Voice Mail, Centrex, ISDN

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

System:	SONET OC48

EAS: Guernsey, Lingle, Torrington and West Lyman
Interoffice:

To Morrill, NE	Digital
To Scottsbluff, NE	Digital
To Torrington, WY	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Lake

Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Ericsson
Switch Model: AXE/RSS (Digital)
NPA Code: 307
NNX Code:
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
242	Qwest Communications	

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron, Remote Call Forwarding
CLASS:	Caller Identification - Name and Number, Caller Identification Number, Calling ID on Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured or Flat Rate Service, Private Branch Exchange Trunks, Equal Access, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711

EAS: Mammoth and Old Faithful, Wyoming, and Montana exchanges of Belgrade, Bozeman, Clyde Park, Cooke City, Gallatin Gateway, Gardiner, Livingston, Manhattan, Three Forks, West Yellowstone, and Wilsall.

Interoffice:

to Mammoth	Digital
to Billings, MT	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Lander

Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100/RSC (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
332, 335	Qwest Communications	RBOC
526	Wyocom LLC d/b/a Contact Communications	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
330	Union Cellular	Wireless Provider
345	Union Cellular	Wireless Provider

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

349	Comnet Cellular, Inc. – Wy.	Wireless Provider
658	Comnet Cellular, Inc.	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	IntraCall, Custom Ringing, 3-Way Calling, Call Waiting, Call Forwarding, Remote Call Forwarding, Speed Call, Centron Service, Long Distance Alert
CLASS:	Caller Identification – Name & Number, Caller Identification – Number, Calling ID on Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured Rate Service, Flat Rate Service, Private Branch Exchange Trunks, E-911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, PCS Wireless, 211, 311, 511, 711, Frame Relay

Interoffice:

To Riverton	Digital Radio (1 DS3)
To Casper	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Laramie

Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 (Digital)
NPA Code: 307, 970
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 528	Wyocom LLC d/b/a Contact communications	CLEC
(307) 721, 742, 745, 755, 766	Qwest Communications	RBOC
(970) 435	Qwest Communications	RBOC
(307) 218	Inttec, Inc.	CLEC
(307) 460	Level 3	CLEC
(307) 551	KMC Telecom	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
399,760	**Verizon**	Wireless Provider
761	Western Wireless Corporation – Wy.	Wireless Provider
977	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	IntraCall, Centron, Call Waiting, Call Forwarding, Speed Dialing, Custom Ringing, 3-Way Calling, Remote Call Forwarding, Remote Access Forwarding, Scheduled Forwarding, Long Distance Alert, Call Data Collection and Transmission, TrackLine Plus, Call Curfew
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, Frame Relay, 211, 311, 511, 711, E-911, ATM, ISDN PRI, ISDN BRI
Other:	xDSL

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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Interoffice:

To Cheyenne	Digital
To Rawlins	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Leigh Canyon
Teton Telecom

Central Office:
Switch Manufacturer: Nortel
Switch Model: HSO/SSO (Digital) (Remote from Freedom Host)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
576	Columbine Telephone d/b/a Teton Telecom	Independent– EAS (Driggs, ID)

Equal Access IntraLATA: No **Local Number Portability: Yes**
Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	Short List Speed Calling, Long List Speed Calling, Call Forwarding, Toll Call Forwarding, Remote Call Forwarding, Call Waiting, 3-Way Calling, 2-Party Custom Calling Features, Cancel Call Waiting, Integrated Business Service (Small Centrex), Enhanced Business Service (Large Centrex)
Options:	Equal Access Feature Group A, Equal Access,
Other:	xDSL, **I. P. Video**

Interoffice:

To Freedom, WY	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Lingle
Sprint Communications

Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 RSC (Digital, remote off Scottsbluff, NE)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
837	United Telephone Company of the West – Wy.	Independent

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	Call Waiting; Call Forwarding, Three-way Calling, Speed Calling 8, Speed Calling 30, Directory Number Transfer, Call Forwarding-Busy, Call Forwarding-No Answer, Remote Call Forwarding, Hot line/Warm Line, Intercom, Signal Ring
CLASS:	Return Call, Caller ID with Name, Anonymous Call Rejection, Repeat Dialing, Selective Call Forward, Selective Call Rejection, Selective Call Ring
Options:	911, Business Premise Wiring, CCS7, Channel Banks, Data Service Units, Data Terminals, Digital Central Office, Digital Data Service, DS0, DS1 Clear Channel, LAN Networks, Modems, Other LAN Equipment, Residential Premise Wiring, Routers, School Premise Wiring, Switched 56, T-1 Multiplexers, Telephone sets, Touch Tone Dialing, UCD, Voice Mail, Centrex, Internet, ISDN
System:	SONET OC48
Other:	xDSL

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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EAS: Guernsey, LaGrange, Torrington and West Lyman
Interoffice:

To Morrill, NE	Digital
To Scottsbluff	Digital
To Torrington	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Lovell (includes Byron, Cowley)

TCT West, Inc.
Central Office:
Switch Manufacturer: Lucent Technologies
Switch Model: 5ESS-2000
Switch Location: Basin, WY, via digital line carrier from Lovell
NPA Codes: 307, 406
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 548	TCT West, Inc.	Independent
(406) 484	TCT West, Inc.	Independent

Equal Access IntraLATA: Capable, 10XXX **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Options:	Automatic Call back, Automatic Route Selection, Advanced Services Platform, Call Forwarding all, Automatic Call Distribution, Call Trace customer originated, Call Park, Code Calling answer, Directed Call Pickup, Call Waiting & Cancel, ISDN, Distinctive Ringing Call, Home Intercom, Line Identification name and number, Circular Hunt, Multiple Hunt, Three-way calling, Six way analog conference calling, Consult, Call Transfer, Call Bridging, Attendant Recall, Line Queue, Speed Calling all, Selective Call Rejection, Selective Call acceptance, Restricted Originating, Time, Local Internet Access
System:	Full SONET (ring bus), ATM, TV, Video.
Other:	xDSL

Interoffice:

To Basin	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Lusk

Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100/RSC (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
334	Qwest Communications	RBOC
785	WyoCom LLC d/b/a Contact Communications	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
340	**Verizon**	Wireless Provider
216	Western Wireless	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

Switch Features Enabled:

Custom:	Call Forwarding, IntraCall, Speed Calling, Call Waiting, Centron Services, 3-Way Calling, Remote Call Forwarding, Custom Ringing, Long Distance Alert
CLASS:	Caller Identification - Name & Number, Calling ID On Call Waiting, Caller Identification - Number, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Flat Rate Service, Measured Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Toll Restriction, Direct Inward Dialing, Digital connectivity, 911, 211, 311, 511, 711

Interoffice:

To Douglas	Digital
To Glendo	Digital
To Casper	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Lyman

Union Telephone Company

Central Office:

Switch Manufacturer: Nortel (Northern Telecom)

Switch Model: DMS-100/200 RSC

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
787	Union Telephone Company – Wy.	Independent
788	United Telephone Company of the West d/b/a Sprint – NE	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**

Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	PBX Trunks, 911 enabled, Tone Dialing, Automatic Call Distribution, Toll Restriction, DID, Multi-line Hunt, 900 Access Blocking, Switched 56, Centrex, SS7 Enabled, Enhanced 800.
Class:	**Cancel Call Waiting, Call Waiting, Call Forward, 3-Way Calling, Speed Calling , Transfer, Call Forward Busy, Call Forward No Answer, Caller ID, Remote Call Forward, Selective Call Forward and Rejection, Caller ID Blocking.**
Options:	Internet Access by Union, Voice Mail.
Other:	xDSL

Interoffice:

To Mountain View	Digital cable
To Rock Springs	Digital cable/microwave

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

(Serving Wyoming, West Lyman NE)

Sprint Communications

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: DMS-100 RLCM (Digital, remote off Scottsbluff, NE)

NPA Code: 307

NNX Code: 788

Equal Access IntraLATA: Yes Local Number Portability: Yes

Equal Access InterLATA: Yes

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Switch Features Enabled:

Custom:	Call Waiting; Call Forwarding, Three-way Calling, Speed Calling 8, Speed Calling 30, Directory Number Transfer, Call Forwarding-Busy, Call Forwarding-No Answer, Remote call forwarding, Hot line/Warm Line, Intercom, Signal Ring
CLASS:	Return Call, Caller ID with Name, Anonymous Call Rejection, Repeat Dialing, Selective Call Forward, Selective Call Rejection, Selective Call Ring
Options:	911, ACD, Business Premise Wiring, CCS7, Channel Banks, Data Service Units, Data Terminals, Digital Central Office, Digital Data Service, DS0, DS1 Clear Channel, E-911, LAN Networks, Modems, OC12, Other LAN Equipment, Residential Premise Wiring, Routers, School Premise Wiring, SONET, Switched 56, T-1 Multiplexers, Telephone sets, Touch Tone Dialing, UCD, Voice Mail, Centrex, Internet, ISDN
System:	SONET OC48

EAS: Guernsey, LaGrange, Lingle and Torrington

Interoffice:

To Morrill	Digital
To Scottsbluff	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Mammoth

Qwest Communications, Inc.

Central Office:

Switch Manufacturer: Ericsson

Switch Model: AXE (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
344	Qwest Communications	RBOC

Equal Access IntraLATA: Yes Local Number Portability: Yes

Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron, Remote Call Forwarding
CLASS:	Caller Identification - Name & Number, Calling ID On Call Waiting, Caller Identification - Number, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured or Flat Rate Service, Private Branch Exchange Trunks, Equal Access, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711

EAS: Lake and Old Faithful, Wyoming, and Montana exchanges of Belgrade, Bozeman, Clyde Park, Cooke City, Gallatin Gateway, Gardiner, Livingston, Manhattan, Three Forks, West Yellowstone, and Wilsall.

Interoffice:

To Gardner, MT	Digital
To Lake	Digital
To Old Faithful	Digital
To West Yellowstone, MT	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Marbleton

CenturyTel of Wyoming, Inc.

Central Office:

Switch Manufacturer: Northern Telecom

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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Switch Model: DMS-10 remote off Big Piney Switch (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
276	CenturyTel of Wyoming, Inc. (Big Piney)	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Short Speed Call, Long Speed Call, Call Forward, 3-Way Calling, Call Waiting, Cancel Call Waiting, Remote Call Forward, Toll Call Forward, Teen Service, Ring Again, Enhanced 800, Call Forward Remote Access, Centrex, Voice Mail;
Options:	Touch Tone Dialing, Toll Restriction, 1+ and 0+ Dialing, Trunk Hunting, Wire Maintenance Plan, Equal Access, Integrated Business Services, Enhanced Business Services
System:	Local T1, 280 IDS
Other:	**xDSL**

Interoffice:

To Pinedale	Digital
To Kemmerer	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

McKinnon
Union Telephone Company
Central Office:
Switch Manufacturer: Nortel (Northern Telecom)
Switch Model: RLCM (digital) (Remote Line Concentrator Module)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
378	Union Telephone Company – WY.	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	PBX Trunks, 911 enabled, Tone Dialing, Automatic Call Distribution, Toll Restriction, DID, Multi-line Hunt, 900Access Blocking, Switched 56, Centrex, SS7 enabled, Enhanced 800
Class	**Cancel Call Waiting, Call Waiting, Call Forward, 3 Way Calling, Speed Calling, Transfer, Call Forward Busy, Call Forward No Answer, Caller ID, Remote Call Forward, Selective Call Forward and Rejection, Caller ID Blocking.**
Options:	Internet Access by Union, Voice Mail.
Other:	xDSL

Interoffice:

To Laramie	Digital (via - Network) microwave
To Encampment	Digital microwave

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Medicine Bow
CenturyTel of Wyoming, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10, (Digital)

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NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
379	CenturyTel of Wyoming, Inc.	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
520	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Short Speed Call, Long Speed Call, Call Forward, Call Waiting, 3-Way Calling, Remote Call Forward, Toll Call Forward, Cancel Call Waiting, Teen Service, Ring Again, Enhanced 800, Enhanced 888, Expanded International Dialing, Touch Tone Dialing, 911
Options:	Toll Restriction, 1+ and 0+ Dialing, Trunk Hunting, Wire Maintenance Plan, Equal Access, Centrex Including Integrated Business Service, Enhanced Business Service and Meridian Business Set
System:	Local T1, 280 IDS

Interoffice:

To Cheyenne	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Meeteetse
TCT West
Central Office:
Switch Manufacturer: Lucent Technologies
Switch Model: 5ESS -2000
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
868	TCT West, Inc.	Independent

Equal Access IntraLATA: Capable, 10XXX **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Options:	Automatic Call back, Automatic Route Selection, Advanced Services Platform, Call Forwarding all, Automatic Call Distribution, Call Trace customer originated, Call Park, Code Calling answer, Directed Call Pickup, Call Waiting & Cancel, ISDN, Distinctive Ringing Call, Home Intercom, Line Identification name and number, Circular Hunt, Multiple Hunt, Three-way calling, Six way analog conference calling, Consult, Call Transfer, Call Bridging, Attendant Recall, Line Queue, Speed Calling all, Selective Call Rejection, Selective Call acceptance, Restricted Originating, Time, Local Internet Access
System:	Full SONET (ring bus), ATM, TV, Video.
Other:	xDSL

Interoffice:

To Casper	Digital
To Basin	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

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Midwest
RT Communications
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: **RSC Remote off Worland DMS 100**
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
437	RT Communications	Independent

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features/Services Enabled:

SERVICES	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing,E-911 Service, DID Special Service Circuit – Switched 56, T1
CUSTOM CALLING/CLASS FEATURES ENABLED	(Services requiring SS7 local only) 3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
OTHER	Voice Messaging, Teleconference, xDSL.

Interoffice:

Worland	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Moorcroft
RT Communications
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: RSC Remote off Newcastle DMS 100
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
756	RT Communications	Independent

Wireline NNX Codes:

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features/Services Enabled:

Services:	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, 911 Service, DID (E-911 capable), Special Service Circuit – Switched 56, T1, T3SS7 equipped
Custom Calling/CLASS Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line, 711
Other	Voice Messaging, Call Answering, Local Internet Access, Teleconference, xDSL.

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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Interoffice:

To Newcastle	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Moran

Qwest Communications, Inc.

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: DMS-100/RSC (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
543	Qwest Communications	RBOC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
541	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes

Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	IntraCall, 3-Way Calling, Call Waiting, Centron, Call Forwarding, Remote Call Forwarding, Speed Dialing, Custom Ringing, Long Distance Alert
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Caller ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Flat and Measured Rate Service, Private Branch Exchange Trunks, E-911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711, Frame Relay

EAS: Jackson

Interoffice:

To Jackson	Digital
To Casper	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Mountain View

Union Telephone Company

Central Office:

Switch Manufacturer: Nortel (Northern Telecom)

Switch Model: DMS-100/200 (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
782	Union Telephone Company – WY.	Independent
786	Union Telephone Company – WY. (Urie)	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
360, 780	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**

Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	PBX Trunks, 911 enabled, Tone Dialing, Automatic Call Distribution,, Toll Restriction, DID, Multi-line Hunt, 900 Access Blocking, Switched 56, Centrex, SS7 Enabled, Enhanced 800.

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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CLASS:	**Cancel Call Waiting, Call Waiting, Call Forward, 3-Way Calling, Speed Calling, Transfer, Call Forward Busy, Call Forward No Answer, Caller ID, Remote Call Forward, Selective Call Forward and Rejection, Caller ID Blocking.**
Options:	Internet Access by Union, Voice Mail.
Other:	xDSL

Interoffice:

To Green River	Digital microwave
To Evanston	Digital microwave
To Lyman	Digital cable
To Rock Springs	Digital microwave
To Kemmerer	Digital microwave
To Manila	Digital microwave
To Casper	Digital microwave
To Encampment	Digital microwave
To Cheyenne	Digital microwave
To Jackson	Digital microwave

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Newcastle

RT Communications

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: Remote

NPA Codes: 307, 605

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 746	RT Communications	Independent
(605) 749	RT Communications	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type

Equal Access IntraLATA: Yes **Local Number Portability: Yes**

Equal Access InterLATA: Yes

Switch Features/Services Enabled:

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, 911 Service, DID (E911 capable) Special Service Circuit – Switched 56, T1, T3 SS7 equipped
Custom Calling/CLASS Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other:	Voice Messaging, Call Answering, Local Internet Access, Teleconference, xDSL

EAS: The Osage exchange is included in the Newcastle local calling area

Interoffice:

To Hulett	Digital

To Osage	Digital
To Upton	Digital
To Moorcroft	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Old Faithful

Qwest Communications, Inc.

Central Office:

Switch Manufacturer: Ericsson
Switch Model: AXE/RSS (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
545	Qwest Communications	RBOC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
549	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron, Remote Call Forwarding
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, continuous Redial, SS-7
Options:	Measured or Flat Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity; 211, 311, 511, 711

EAS: Lake and Mammoth, Wyoming, and the Montana exchanges of Belgrade, Bozeman, Clyde Park, Cooke City, Gallatin Gateway, Gardiner, Livingston, Manhattan, Three Forks, West Yellowstone, and Wilsall.

Interoffice:

To Mammoth	Digital
To Billings, MT	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Osage

RT Communications

Central Office:

Switch Manufacturer: Northern Telecom
Switch Model: **RLCN Remote off Newcastle DMS 10**

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
465	RT Communications	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features/Services Enabled:

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, 911 Service, DID(E-911 capable) Special Service Circuit – Switched 56, T1, T3 SS7 equipped
Custom Calling/CLASS	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

Features Enabled	Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other	Voice Messaging, Call Answering, Local Internet Access, Teleconference

EAS: The Newcastle exchange is included in the Osage local calling area.
Interoffice:

To Newcastle	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Pine Bluffs

RT Communications

Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 (Digital)
NPA Codes: 307, 308
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 245	RT Communications	Independent
(308) 244	RT Communications	Independent

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features/Services Enabled:

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, E-911 Service, DID Special Service Circuit – Switched 56, T1, T3 SS7 equipped
Custom Calling/CLASS Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forwar, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other	Voice Messaging, Call Answering, Teleconference, xDSL

EAS: Cheyenne, Burns, Carpenter and Albin
Interoffice:

To Albin	Digital
To Burns	Digital
To Carpenter	Digital
To Cheyenne	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Pinedale

CenturyTel of Wyoming, Inc.

Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 (Digital), **502.0** (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
367, 537, 859	CenturyTel of Wyoming, Inc.	Independent

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Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
231	Comnet Cellular, Inc. – WY.	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Short Speed Call, Long Speed Call, Call Forward, 3-Way Calling, Call Waiting, Cancel Call Waiting, Remote Call Forward, Toll Call Forward, Teen Service, Ring Again, Enhanced 800, Call Forward Remote Access, Centrex, Voice Mail
Options:	Touch Tone Dialing, Toll Restriction, 1+ and 0+ Dialing, Trunk Hunting, Wire Maintenance Plan, Equal Access, Integrated Business Services, Enhanced Business Services
System:	Local T1, 280 IDS
Other:	**xDSL**

Interoffice:

To Big Piney	Digital
To Cheyenne	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Powell

Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Ericsson
Switch Model: AXE/RSS (Digital)
NPA Code: 307, 406
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 754	Qwest Communications	RBOC
(406) 574	Qwest Communications	RBOC
(307) 219	Inttec, Inc.	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
(307) 769	Wyocom LLC d/b/a Contact Communications	Wireless Provider
(307) 254	Comnet Cellular	Wireless Provider
(307) 202	Western Wireless	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron Service, Remote Call Forwarding
CLASS:	Caller Identification – Name & Number, Caller Identification – Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 911 Service, 211, 311, 511, 711, ATM, Frame Relay
Other:	**xDSL**

Interoffice:

To Casper	Digital
To Cody	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

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Rawlins
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 (digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
324, 328	Qwest Communications	RBOC
729	Wyocom LLC d/b/a Contact Communications	CLEC
226	Inttec, inc.	CLEC
212	Level 3	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
320	Union Cellular	Wireless Provider
321, 361, 370	Comnet Cellular, Inc. – WY.	Wireless Provider

Equal Access IntraLATA: Yes Local Number portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Remote Call Forwarding, Speed Call, Centron Service, Custom Ringing, Intracall, Long Distance Alert
CLASS:	Caller Identification-Name and Number, Caller Identification Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, 911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, ATM, 211, 311, 511, 711
Other:	xDSL

Interoffice:

To Laramie	Digital
To Rock Springs	Digital
To Cheyenne	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Riverton
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
748	Wyocom LLC d/b/a Contact Communications	CLEC
855, 856, 857	Qwest Communications	RBOC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
240	TW Wireless, LLC	Wireless Provider
840, 851, 852	Comnet Cellular, Inc. – Wy.	Wireless Provider
850	Union Cellular	Wireless Provider
858	Union Cellular	Wireless Provider

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Call, Remote Call Forwarding, Centron Service, Custom Ring, Intracall, Long Distance Alert
CLASS:	Caller Identification - Name and Number, Caller Identification Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, E-911, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, ISDN-PRI, 211, 311, 511, 711, Frame Relay, ATM
Other:	**xDSL**

Interoffice:

To Lander	Digital
To Casper	Digital, Radio (3 DS3's)

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Rock River
Union Telephone Company
Central Office:
Switch Manufacturer: Nortel (Northern Telecom)
Switch Model: RLCM (digital) (Remote Line Concentrator Module)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
378	Union Telephone Company – WY.	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	PBX Trunks, 911 enabled, Tone Dialing, Automatic Call Distribution, Toll Restriction, DID, Multi-line Hunt, 900 Access Blocking, Switched 56, Centrex, SS7 enable, Enhanced 800.
CLASS	**Call Waiting, Cancel Call Waiting, Call Forward, 3-Way Calling, Speed Calling, Call Forward No Answer, Caller ID, Remote Call Forward, Selective Call Forward and Rejection, Caller ID Blocking.**
Options:	Internet Access by Union, Voice Mail.
Other:	xDSL

Interoffice:

To Laramie	Digital (via - Network) microwave
To Encampment	Digital microwave

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Rock Springs
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Ericsson
Switch Model: AXE (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
252	Uintah Basin Electric	Independent

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

352, 362, 382	Qwest Communications	RBOC
768	Wyocom LLC d/b/a Contact Communications	CLEC
922	AT&T Local – Wy.	CLEC
228	Inttec, Inc.	CLEC
212	Level 3	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
350, 354	Union Cellular	Wireless Provider
371, 381, 389	Comnet Cellular, Inc. – Wy.	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Call, Centron Service, Remote Call Forwarding
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Calling ID On Call Waiting, Caller Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, E-911, Frame Relay, Digital Connectivity, Multi-line Hunting, Toll Restriction, 211, 311, 511, 711, ATM
Other:	xDSL

Interoffice:

To Green River	Digital
To Kemmerer	Digital
To Rawlins	Digital
To Cheyenne	Digital
To Evanston	Digital Fiber OC48

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Saratoga

Union Telephone Company

Central Office:
Switch Manufacturer: Nortel (Northern Telecom)
Switch Model: RSCS (Remote Switching Center-Sonet)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
326	Union Telephone Company – Wy.	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
329	Union Cellular	Wireless Provider

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	PBX Trunks, Tone Dialing, Toll Restriction, DID, Multi-line Hunt, 900 Access Blocking, Switched 56, Centrex, SS7 Enable, Enhanced 800.
CLASS Enabled	Cancel Wall Waiting, Tone Dialing, Flat Rate Calling, PBX Trunks, 911 Enabled
Options:	Internet Access by Union, Voice Mail.
Other:	xDSL

Interoffice:

To Encampment	Digital Fiber

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

To Hanna	Digital Fiber/microwave
To Mountain View	Digital Fiber/microwave
To Rawlins	Digital Fiber/microwave

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

SE Sheridan

Range Telephone Cooperative, Inc.

Central Office:

Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
737	Range Telephone Cooperative, Inc.	Independent

Equal Access IntraLATA: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Touch Tone Dialing, Centrex, Call Forwarding, Call Waiting, 3-Way Calling, Speed Calling, Teen Service, Voice Mail, Usage Sensitive Custom Calling, Common Channel Signaling 7, Enhanced 800 Dialing, Call Forward Remote Access, User Programmable Call Forward Don't Answer, E-911, Sw 56, Calling Name and Number Delivery, Call Forward Busy, Remote Call Forward, Selective Call Forward, Digital PBX, Caller ID Blocking, Customer Originated Trace, Automatic Call Back, Automatic Recall, Selective Call Acceptance, Selective Call Rejection, Anonymous Call Rejection, User Transfer, Selective Distinctive Ringing
Other:	**xDSL**

Interoffice:

To Decker	Digital
To Sheridan	Digital
To Clearmont	Digital
To Arvada	Digital
To Casper	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Sheridan

Qwest Communications, Inc.

Central Office:

Switch Manufacturer: Ericsson
Switch Model: AXE 10 (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
655, 672, 673, 674, 683	Qwest Communications	RBOC
743	Wyocom LLC d/b/a Contact Communications	CLEC
229	Inttec, Inc.	CLEC
461	Level 3	CLEC
675	Advance Communications Technology	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

751	Western Wireless Corporation – WY.	Wireless Provider
752, 753, 759, 763	Comnet Cellular, Inc – WY.	Wireless Provider
488	3 Rivers PCS, Inc.	PCS

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Calling, Centron Service, Remote Call Forwarding
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711, 911, Frame Relay, ATM
Other:	xDSL

EAS: Story, Dayton-Ranchester, and SE Sheridan (Range Telephone - Independent)
Interoffice:

To Casper	Digital
To Buffalo	Digital
To Dayton-Ranchester	Digital
To Story	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Shoshoni

RT Communications

Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: RLC Remote off Worland DMS 100
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
876	RT Communications	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features/Services Enabled:

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, E-911 Service, DID Special Service Circuit – Switched 56, T1, T3 SS7 equipped
Custom Calling/CLASS Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forwar, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other	Voice Messaging, Call Answering, Local Internet Access, Teleconference, xDSL

Interoffice:

To Worland	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

Story
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Ericsson
Switch Model: AXE/RSS (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
683	Qwest Communications	RBOC

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	3-Way Calling, Call Waiting, Call Forwarding, Speed Calling, Centron Service, Remote Call Forwarding
CLASS:	Caller Identification – Name & Number, Caller Identification – Number, Calling ID On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured & Flat Rate Service, Touch Tone Dialing, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711, 911, Frame Relay

EAS: Sheridan, Dayton-Ranchester and SE Sheridan (Range Telephone – Independent)
Interoffice:

To Sheridan	Digital
To Casper	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Sundance
Range Telephone Cooperative, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-10 (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
283	Range Telephone Cooperative, Inc.	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
281, 282, 284	Comnet Cellular Inc. – WY.	Wireless Provider
290	Western Wireless Corporation – WY.	Wireless Provider

Equal Access IntraLATA: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Touch Tone Dialing, Centrex, Call Forwarding, Call Waiting, 3-Way Calling, Speed Calling, Teen Service, Voice Mail, Usage Sensitive Custom Calling, Common Channel Signaling 7, Enhanced 800 Dialing, Call Forward Remote Access, User Programmable Call Forward Don't Answer, Sw 56, E-911, Calling Name and Number Delivery, Call Forward Busy, Remote Call Forward, Selective Call Forward, Digital PBX, Caller ID Blocking, Customer Originated Trace, Automatic Call Back, Automatic Recall, Selective Call Acceptance, Selective Call Rejection, Anonymous Call Rejection, User Transfer, Selective Distinctive Ringing
Other:	xDSL

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

Interoffice:

To Casper	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Ten Sleep

Tri County Telephone Association, Inc.

Central Office:

Switch Manufacturer: Lucent Technologies
Switch Model: 5ESS-2000
Switch Location: Basin, WY, via digital line carrier from Ten Sleep

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
366	Tri-County Telephone Association, Inc.	Independent
469	Tri-County Telephone Association, Inc. (Hyattville)	Independent

Equal Access IntraLATA: Capable, 10XXX **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features Enabled:

Options:	Automatic Call back, Automatic Route Selection, Advanced Services Platform, Call Forwarding all, Automatic Call Distribution, Call Trace customer originated, Call Park, Code Calling answer, Directed Call Pickup, Call Waiting & Cancel, ISDN, Distinctive Ringing Call, Home Intercom, Line Identification name and number, Circular Hunt, Multiple Hunt, Three-way calling, Six way analog conference calling, Consult, Call Transfer, Call Bridging, Attendant Recall, Line Queue, Speed Calling all, Selective Call Rejection, Selective Call acceptance, Restricted Originating, Time, Local Internet Access
System:	Full SONET (ring bus), ATM, TV, Video, Fiber to the Home.
Other:	xDSL

EAS: Hyattville
Interoffice:

To Casper	Digital
To Hyattville	Digital
To Basin	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Thermopolis

RT Communications

Central Office:

Switch Manufacturer: Northern Telecom
Switch Model: **RSC Remote off Worland DMS 100**

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
864	RT Communications	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

Switch Features/Services Enabled:

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, 911 Service, E-911 Service, DID Special Service Circuit – Switched 56, T1, T3, SS7 equipped
Custom Calling/CLASS Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other	Voice Messaging, Call Answering, Local Internet, Teleconference, xDSL

EAS: Hamilton Dome

Interoffice:

To Hamilton Dome	Digital
To Worland	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Torrington

Sprint Communications

Central Office:

Switch Manufacturer: Northern Telecom

Switch Model: DMS-100 **SRSC** (Digital, remote off Scottsbluff, NE)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
532, 534	United Telephone Co. of the West d/b/a Sprint	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
401	Western Wireless Corporation – Wy.	Wireless Provider
557	**Cellular, Inc.**	**Wireless Provider**

Equal Access IntraLATA: Yes Local Number Portability: Yes

Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	Call Waiting; Call Forwarding, Three-way Calling, Speed Calling 8, Speed Calling 30, Directory Number Transfer, Call Forwarding-Busy, Call Forwarding-No Answer, Remote call forwarding, Hot line/Warm Line, Intercom, Signal Ring
CLASS:	Return Call, Caller ID with Name, Anonymous Call Rejection, Repeat Dialing, Selective Call Forward, Selective Call Rejection, Selective Call Ring
Options:	911, Business Premise Wiring, Channel Banks, Data Service Units, Data Terminals, Digital Central Office, Digital Data Service, DS0, DS1 Clear Channel, E-911, LAN Networks, Modems, Other LAN Equipment, Residential Premise Wiring, Routers, School Premise Wiring, T-1 Multiplexers, Telephone sets, Touch Tone Dialing, Centrex capability, Internet, ISDN
System::	SONET OC48
Other:	xDSL

EAS: Lingle, Guernsey, LaGrange and West Lyman

Interoffice:

To Lingle	Digital
To Morrill	Digital
To Scottsbluff	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

Upton
RT Communications

Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: **RSC Remote off Newcastle DMS 10**

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
468	RT Communications	Independent

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes

Switch Features/Services Enabled:

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, 911 Service, DID (E-911 capable) Special Service Circuit – Switched 56, T1, T3, SS7
Custom Calling/CLASS Features Enabled	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other	Voice Messaging, Call Answering, Local Internet Access, Teleconference, **xDSL**

Interoffice:

To Newcastle	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Wheatland
Qwest Communications, Inc.

Central Office:
Switch Manufacturer: AT&T
Switch Model: 5ESS/RSM (Digital)

NPA Code: 307

Landline NNX Codes:

NNX	Telephone Company	TelCo Type
322	Qwest Communications	RBOC
943	Wyocom LLC d/b/a Contact Communications	CLEC

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type
241	Western Wireless Corporations – WY.	Wireless Provider
331	**Verizon**	Wireless Provider

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes

Switch Features Enabled:

Custom:	IntraCall, Custom Ringing, 3-Way Calling, Call Waiting, Call Forwarding, Speed Calling, Centron Service, Single Number Service, Remote Call Forwarding, Remote Access Forwarding, Scheduled Forwarding, Call Curfew, Long Distance Alert, Call Data Collection and Transmission, TrackLine Plus
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Calling On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Flat Rate Service, Measured Service, Touch Tone Dialing, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711, 911

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

EAS: Glendo, Chugwater
Interoffice:

To Cheyenne	Digital
To Glendo	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Worland
RT Communications
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100 (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
347, 375	RT Communications, Inc.	Independent

Wireless NNX Codes:

NNX	Telephone Company	TelCo Type

Equal Access IntraLATA: Yes **Local Number Portability: Yes**
Equal Access InterLATA: Yes
Switch Features/Services Enabled

Services	Flat Rate Service, Flat Rate Trunks, Touch Tone Dialing, E-911 Service, DID, Special Service Circuit – Switched 56, T1, T3, SS7 Equipped
Custom Calling/CLASS Features Enabled (Wireline)	3-Way Calling, 8 Speed Calling, Automatic Call Back, Automatic Recall, Anonymous Call Rejection, Call Forward, Call Forward Busy, Caller ID Per Call Blocking, Call Forward No Answer, Call Forward Remote Access, Calling Name Delivery, Calling Number Delivery, Call Waiting, Centrex, Customer Originated Trace, Distinctive Ringing, Remote Call Forward, Selective Call Acceptance, Selective Call Forward, Selective Call Rejection, 30 Speed Calling, Caller ID Per Line Blocking, Teen Line, Ring Again, Call Transfer, Warm Line
Other:	Voice Messaging, Local Internet Access, Call Answering, Teleconference, xDSL.

Interoffice:
Wireline:

To Thermopolis	Digital
To Shoshoni	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Wright
Qwest Communications, Inc.
Central Office:
Switch Manufacturer: Northern Telecom
Switch Model: DMS-100/RSC (Digital)
NPA Code: 307
Landline NNX Codes:

NNX	Telephone Company	TelCo Type
464, 939	Qwest Communications	RBOC

Equal Access IntraLATA: Yes Local Number Portability: Yes
Equal Access InterLATA: Yes
Switch Features Enabled:

Custom:	Call Forwarding, Call Waiting, 3-Way Calling, Speed Dialing, **Remote Call** Forwarding, IntraCall, Centron, Custom Ringing, Long Distance Alert
CLASS:	Caller Identification - Name & Number, Caller Identification - Number, Calling ID

NOTE: Changes and additions since the previous telecommunications report are shown in **BOLD**

APPENDIX D
Wyoming Central Office Information (by location)
as of December 31, 2004

	On Call Waiting, Call Rejection, Priority Call, Selective Call Forwarding, Last Call Return, Continuous Redial, SS-7
Options:	Measured and Flat Rate Service, Private Branch Exchange Trunks, Multi-line Hunting, Direct Inward Dialing, Toll Restriction, Digital Connectivity, 211, 311, 511, 711, 911

EAS: Gillette

Interoffice:

To Casper	Digital
To Gillette	Digital

Internet Service: Inquire locally about service and ISPs. See Guide to Reading Appendix D.

Note to these tables:

NNX numbers (central office codes - the first three digits of your local telephone number) may be found at http://www.primeris.com/fonefind. Lists pertinent to Wyoming exchanges may be found by searching area codes 208, 307, 308, 406, 435, 605, 801, and 970.

Basic Trading Areas for wireless applications may extend beyond areas listed. Contact local service providers for wireless availability in your area.

APPENDIX E

Joint Petition to the FCC for Supplemental Universal Service Funds for Customers of Wyoming's Non-Rural Incumbent Carrier (submitted December 21, 2004)

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Federal-State Joint Board on	)	CC Docket No. 96-45
Universal Service	)	

JOINT PETITION OF THE WYOMING PUBLIC SERVICE COMMISSION AND THE WYOMING OFFICE OF CONSUMER ADVOCATE FOR SUPPLEMENTAL FEDERAL UNIVERSAL SERVICE FUNDS FOR CUSTOMERS OF WYOMING'S NON-RURAL INCUMBENT LOCAL EXCHANGE CARRIER

(Submitted December 21, 2004)

The Wyoming Public Service Commission (WPSC) and the Wyoming Office of Consumer Advocate (WOCA) hereby petition the Federal Communications Commission (Commission) for supplemental universal service funding for customers of Wyoming's only non-rural incumbent local exchange carrier, Qwest Corporation (Qwest). This petition is filed pursuant to the Commission's decision and direction provided in its October 27, 2003, *Order on Remand, Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order* (the *Order on Remand*) in CC Docket No. 96-45, FCC 03-249. It is also a follow-up to the annual residential rate comparability certification filed on September 30, 2004, pursuant to 47 C.F.R. § 54.316.

BACKGROUND

In its *Order on Remand*, the Commission, more specifically than in its prior decisions, addressed the universal service principles of: [a] affordability of rates for quality services, [b] sufficiency of the universal service fund, and [c] ensuring that rural customers have access to services reasonably comparable to those available in urban areas at prices that are also reasonably comparable to those of urban customers.[1] The *Order on Remand* also addressed a number of specific issues, including: the computation of the support to be provided non-rural carriers, the definitions of "sufficient" and "reasonably comparable", the required annual certification, and other specifics of universal service funding. However, in this petition we are particularly interested in the Commission's adoption of the Joint Board's recommendation "to

[1] These principles are found in Section 254 of the federal 1996 Telecommunications Act.
Section 254(b)(2) states, "Quality services should be available at just, reasonable, and affordable rates." Section 254(b)(5) states, "There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service."
Section 254(b)((3) states,

> Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.

permit states to request further federal action, if necessary, based on a demonstration that the state's rates in rural, high-cost areas served by non-rural carriers are not reasonably comparable to urban rates nationwide" with the burden on the state to show that it "has taken all reasonable steps to achieve reasonable comparability through state action and existing federal support."[2]

The Commission's supplemental rate review process contains four steps. First, states must annually review rates in rural high-cost areas served by non-rural carriers to assess the comparability of rural rates to urban rates nationwide. Second, states must submit an annual certification to the Commission regarding the comparability of the rates. Third, if a state has not achieved reasonable comparability between rural and urban rates, it must explain in its annual certification why it has not been able to achieve such comparability, and must do so each year until comparability has been achieved. Fourth, a state may request further federal action, based on a showing that federal and state actions taken together are not sufficient to achieve the required rate comparability.

In the *Order on Remand* at paragraph 57, the Commission states that the federal action could include, but is not limited to, "additional targeted federal support or actions to modify calling scopes or improve quality of service where state commissions have limited jurisdiction." [Footnote omitted.] Furthermore, the Commission has indicated its intention of allowing great flexibility regarding the request for further federal action.[3] The Commission also places the burden of showing the need for further federal action on the states, requiring [a] a full explanation of the basis of the request, including a demonstration of the lack of rate comparability, and [b] a full explanation of the actions that the state has taken in its attempt to achieve rate comparability.[4] The Commission has indicated its intention to act as expeditiously as possible on a request for further action after it is received, including an expeditious public notice seeking comment on the request.[5]

It is also important, for background as to why we are filing this Joint Petition, to recall the Commission's definitions of "sufficient" and "reasonably comparable." The Commission has defined "sufficient" as "enough federal support to enable states to achieve reasonably comparable rural and urban rates."[6] As part of its definition of "reasonably comparable," the Commission presumed rural rates would be reasonably comparable to urban rates if they "deviate no further than two standard deviations above the national average urban rate in the Bureau's *Reference Book,*"[7] referring to the *Reference Book of Rates, Price Indices and Expenditures for Telephone Service* (the *Reference Book*) annual survey of local telephone rates conducted by the Commission's Wireline Competition Bureau. At the time of the *Order on*

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[2] See October 27, 2003 *Order on Remand, Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order,* CC Docket No. 96-45 FCC 03-249, paragraph 4.

[3] *Order on Remand,*, paragraph 95 where the Commission states,

> We reject arguments that we should not adopt the Joint Board's recommendation to permit states to seek further federal action because the process is ill-defined. Because the ability to request further federal action is intended to address isolated, unique circumstances, we concur with the Joint Board's recommendation that states should be afforded great flexibility in showing that further federal action is required.

[4] *Order on Remand,* paragraph 93.

[5] *Order on Remand,* paragraph 94.

[6] *Order on Remand,* paragraph 36.

[7] *Order on Remand,* paragraph 38.

Remand, the Commission presumed that if a rural rate is $32.28[8], or less, it would be considered to be within the range of reasonable comparability to nationwide urban rates. This benchmark is to be updated each year. The Commission also stated its willingness to consider other factors or specific information that would show why this presumption should not apply to a specific rural area.

The WPSC and the WOCA remind the Commission that Wyoming's prior concerns about rate affordability and comparability were specifically and pointedly addressed in the *Order on Remand*. At paragraphs 143 through 145, the Commission denied the WPSC's petition for reconsideration of the Commission's *Ninth Report and Order*. However, as part of the denial of this petition, the Commission "commends the Wyoming Commission for implementing pro-competitive policies by deaveraging and eliminating implicit subsidies."[9] Furthermore, the Commission offered each state, including Wyoming, the opportunity to request further federal action based on a showing of both best efforts to achieve rate comparability and the resulting lack of urban-rural rate comparability. This section of the *Order on Remand* concludes, at paragraph 145, "We anticipate that this proposal, if adopted, would help to address the concerns raised by the Wyoming Commission in its petition."

2004 RATE CERTIFICATION FILING

On September 30, 2004, the WPSC filed the required annual residential rate certification for its non-rural incumbent carrier with the Commission and the Universal Service Administrative Company (USAC). Because Wyoming has only one incumbent non-rural carrier, this annual certification related specifically to Qwest's rates and service in Wyoming. In its certification, the WPSC assumed a nationwide urban rate benchmark of $34.16 per month based on the most recent information in the *Reference Book*. The certification filing concluded that Qwest's "rural residential rates are not reasonably comparable to the nationwide urban rate benchmark." [10]

Several reasons for this conclusion of non-comparability are summarized on page 2 of the WPSC Rate Certification filing:

> There are several reasons why the rates are not reasonably comparable, with the main factor being the fact that Wyoming has cost-based rates for its rural areas and no other state does (a fact recognized several times by the FCC in the *Remand Order*). The WPSC has fully implemented the statutory mandates of the pro-competitive Wyoming Telecommunications Act of 1995 (Wyoming Act) (W.S. §§ 37-15-101 through 37-15-502). Relevant sections of the Wyoming Act are W.S. § 37-15-402 which requires cost-based pricing for all retail telecommunications services in Wyoming, W.S. § 37-15-403 which prohibits cross subsidies and eliminates implicit subsidies and W.S.§ 37-15-501, which establishes the Wyoming Universal Service Fund. Qwest now has in place de-averaged cost-based residential rates with all implicit subsidies removed from the residential rates and the WPSC has implemented the explicit subsidy support

[8] As noted in footnote 204 of the *Order on Remand* and the *Reference Book* data, the related benchmark of $32.28 should include not only the monthly charge for flat-rate service, but also subscriber line charges, taxes, 911 charges, and other charges. At the time of the order, these charges, over and above the flat-rate price, were estimated to be about $8.78 nationwide.

[9] *Order on Remand, paragraph 144.*

[10] See *WPSC New Residential Rate Comparability Certification*, filed September 30, 2004, page 2.

program -- the Wyoming Universal Service Fund. The residential rate shown on Exhibit 1 to this certification reflects the true high cost, rural nature of much of Wyoming.

The WPSC's annual rate certification found that many of Qwest's customers were paying the monthly rate of $42.28, including taxes and surcharges. This rate is 124% of the nationwide urban rate benchmark. This rate is the end result *after* both federal universal service funds and Wyoming universal service funds are credited directly to customers' bills. Attachment A hereto is a copy of the WPSC's 2004 annual certification, *New Residential Rate Comparability Certification for Wyoming's Non-Rural Incumbent Carrier Serving in Rural Areas within Wyoming Pursuant to 47 C.F.R. § 54.316*, filed with the Commission and USAC on September 30, 2004.

MORE FACTS ON WYOMING'S LACK OF RATE COMPARABILITY IN SPITE OF ITS BEST EFFORTS

Wyoming has a small population and low population density. According to the 2000 census[11], Wyoming had the lowest population in the nation, with fewer than 500,000 people (0.2% of the total population in the United States) and more than 97,100 square miles of land, yielding a population density of 5.1 persons per square mile. Only Alaska has a lower population density, with 1.1 persons per square mile and about 627,000 people. However, Alaska is nearly seven times larger than Wyoming. In contrast, the District of Columbia is the second least populous geographic area in the United States, with about 572,000 people, yet it has a population density of more than 9,316 persons per square mile.

Wyoming has very real universal service needs. It is a predominantly rural state with a small and widely dispersed population, few urban centers and some of the most physically difficult-to-serve territory in the United States. Much of the cost of traditional wireline telephone service is driven by distance and density. This is especially true for the local loop portion of the cost which is driven by the amount of trench that must be dug and the amount of cable that must be laid in that trench. In low population density areas[12], long lines are often needed to serve relatively few customers. Qwest serves about 75% of all customers in Wyoming, including customers in much of rural Wyoming. Attachment B to this petition is a map showing that Qwest serves throughout Wyoming and not only in the most urban areas of the state. This is the first reason why it is difficult for Wyoming to meet the rate comparability test defined by the Commission.

Second, substantial network upgrades have occurred over the past five to ten years in Wyoming. With limited exceptions, fiber interoffice connections have been deployed throughout the state. All of Wyoming's switches have been upgraded to digital. Redundant loops have been built by Qwest, by itself and through partnerships with independent local rural carriers. While Wyoming must confront issues arising from technologies that limit service based on loop length and must build network in a fiscally responsible manner, we are far from being a

[11] Data taken from the U.S. Census Bureau, American FactFinder, based on the year 2000 census data. This data shows that the average population density in the United States is 79.6 persons per square mile of land area.
[12] Eight of Wyoming's twenty-three counties have fewer than 10,000 people with one county having fewer than 3,000 people.

technologically backwater state. The cost of the investments necessary to provide this type of quality local service -- service that is capable of providing the advanced services referenced in Section 254 of the 1996 Telecommunications Act[13] -- are included in the cost studies that underlie Wyoming retail and wholesale rates. This affects Wyoming's ability to meet the rate comparability test as defined by the Commission.

Third, and unlike all of the other states, Wyoming has fully prepared its local exchange markets for competition, an undertaking that has dramatically and sometimes painfully increased prices for residential retail customers. Between 1995 and 1999, Qwest made multiple rate filings before the WPSC to transform its rates from traditional, implicit subsidy-laden rates to total service long-run incremental cost-based rates supported only, when necessary, by explicit subsidies. This multiyear process involved:

- Treating an access line as an access line, so that business lines and residential lines are priced the same (i.e., at their true cost), rather than continuing pricing on the ability to pay or value of service.
- Assigning the cost of the local loop to basic local service rather than trying to collect this fixed cost-based item from either optional services (e.g., call waiting, call forwarding) not subscribed to by all customers or from usage based services (e.g., switched access), where larger users would pay a portion of the cost for smaller users -- a continuation of implicit subsidies.
- Deaveraging the cost and price of retail service to recognize that it costs more to serve a more rural customer not located in a clustered population of subscribers.[14]
- Setting retail rates at or above the total service long-run incremental cost of service so entering competitors are not automatically and immediately priced out of the market through the continuation of implicit subsidies.

Each of these has increased the price of local service to Qwest's customers. The following table provides a comparison of 1995 prices and today's prices[15] for Qwest's Wyoming customers:

	1995	2004
Qwest Residential Base Rate Area	$14.64	$23.10
Qwest Residential Zone furthest from Base Rate Area	$24.54	$69.35
Qwest Business Base Rate Area	$30.56	$23.10
Qwest Business Zone furthest from Base Rate Area	$41.46	$69.35
Qwest Per Minute Intrastate Switched Access Rate	$0.0971	$0.014698

Fourth, Wyoming has successfully implemented an explicit universal service funding mechanism as authorized by our legislature at W.S. §§ 37-15-501 and 502. It provides for

[13] Section 254(b)(2) of the 1996 Telecommunications Act states, "Access to advanced telecommunications and information services should be provided in all regions of the Nation."

[14] Qwest's prices are disaggregated by a base rate area and three zones. The base rate area is the most populous area of each exchange. The zones are amoeba shaped areas surrounding the base rate area that represent less dense and less populous areas.

[15] Price shown is before the federal universal service support and Wyoming universal service support are credited to a customer's bill. This information is detailed in a December 2002 WPSC report, *The Pricing of Basic Telecommunications Service under the Wyoming Telecommunications Act of 1995,* found at http://psc.state.wy.us/htdocs/telco/TeleServPrice.PDF.

support directly to customers and is designed so that no customer is required to pay more than 130% of the statewide weighted average local exchange rate, excluding taxes and surcharges, for basic local service. For the twelve months beginning July 1, 2004, the statewide weighted average local service rate in Wyoming is $24.36, making the benchmark support threshold $31.67. Based on current, forward looking cost-based local service rates for all companies in Wyoming, there is a need to support a fund of about $3.6 million annually. Revenue for the fund is provided by an assessment on all intrastate telecommunications revenue, including intrastate wireless revenue, which currently is estimated to be about $270 million annually. This translates into an assessment of just under 1.5% on an ongoing basis[16] at current revenue levels. However, this funding level cannot be expected to remain constant and is expected to increase as [a] intrastate access revenues decrease substantially with the increasing use of wireless telephony for long-distance calls, and [b] more competitive local exchange carriers (CLECs) and wireless companies seek to receive Wyoming universal service fund support.

The fact that Wyoming has instituted a working, viable, explicit universal service fund meets the Commission's test requirement that a state must be trying to help itself. However, using more of Wyoming's universal service funds to keep Wyoming rates affordable and comparable to urban rates would be difficult, especially because Wyoming's urban customers already pay a significantly larger bill than do urban customers in other states. Furthermore, Wyoming rural customers have also engaged in the self-help desired by the Commission, since their Wyoming universal service fund assessment is based on their gross rate, rather than their rate net of federal and state assistance. Thus, a rural Qwest customer with a gross rate of $69.35 would pay more than an extra $1 per month (i.e., $69.35 x 1.5%) for their portion of the Wyoming universal service fund, adding to the burden they already bear of having some of the highest local rates in the nation. Moreover, they still pay their full share of federal universal service charges.

The WPSC and WOCA support this revised and rationalized pricing structure as an important element in preparing the Wyoming market for competition. The continued use of implicit subsidies would not have been conducive to the entry of competitors into the Wyoming market. We were willing to take all the transitional pricing steps needed to move from monopoly markets to competitive markets, recognizing that competition was a goal of both the federal Telecommunications Act of 1996 and the Wyoming Telecommunications Act of 1995. Yet, alongside this transition were to be both federal and state mechanisms to ease the transition to market-based rates and to assist in keeping rates affordable.[17] Wyoming, more than any other state, has taken to heart the concept of preparing for competition. However, this should not be done without the promised federal support mechanism to assist in the transition process while markets become more fully and effectively competitive. We have done what we can ourselves but we deserve additional assistance as provided for in the federal Telecommunications Act of 1996.

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[16] In the past, the assessment has ranged from a low of 1% to a high of 6%.

[17] See May 8, 1997 *Report and Order* in CC Docket No. 96-45, paragraph 1:

"In the Telecommunications Act of 1996 (1996 Act), Congress directed the Commission and the states to take the steps necessary to establish support mechanisms to ensure the delivery of affordable telecommunications service to all Americans, including low-income consumers, eligible schools and libraries, and rural health care providers."

APPENDIX E

Joint Petition to the FCC for Supplemental Universal Service Funds for Customers of Wyoming's Non-Rural Incumbent Carrier (submitted December 21, 2004)

REQUEST FOR ADDITIONAL FEDERAL UNIVERSAL SERVICE FUNDS

The Commission has opened the door to the states to ask for further federal action based on isolated, unique circumstances. In our discussion above, we have shown the unique challenges Wyoming faces. We have shown why the current level of state and federal universal service funds, taken together, are still inadequate to keep current rates comparable under the Commission's test of urban/rural rate comparability. Some respondents have argued and will continue to argue that our request is premature, asserting that the Commission must establish a more rigidly defined one-size-fits-all process for making these requests before the Commission grants supplemental assistance. The Commission has already rightly rejected these arguments[18], while at the same time working to put some parameters and guidelines in place relative to these individualized requests. We ask that the Commission continue to reject the stalling arguments that our request is premature. We have waited long enough. We have had competition-ready prices in place for several years and we have removed competition-strangling implicit subsidies from retail basic service rates in Wyoming, a step few, if any, other states have been willing to take in order to advance competitive markets in rural high-cost service areas. If rates for local service are "reasonable" in Wyoming, one has to ask why other states are so reluctant to rebalance rates and remove implicit subsidies supporting low local service rates. We have asked the Commission for help for several years but the Commission was not yet ready to address our specific need. Now, with the Commission's parameters in place, it is time to examine the effect of implementing truly and thoroughly pro-competitive policies in a rural state.

We ask the Commission to authorize additional federal high cost support funds to further assist in moving the rates of Qwest's Wyoming customers closer to the threshold of urban/rural rate comparability. We use the following illustration[19] to show the magnitude of funds that would assist in this regard.

	Base Rate Area	Zone One	Zone Two	Zone Three
Basic Service Rate	$23.10	$23.10	$23.10	$23.10
Zone Additive	$0	$15.50	$25.50	$46.25
GROSS RATE	**$23.10**	**$38.60**	**$48.60**	**$69.35**
Federal USF Credit	0	($6.93)	($14.18)	($28.00)
RATE NET OF FUSF	**$23.10**	**$31.67**	**$34.42**	**$41.35**
Wyoming USF Credit	$0	$0	($2.75)	($9.68)
Net Rate (before Taxes and Surcharges)	**$23.10**	**$31.67**	**$31.67**	**$31.67**
Subscriber Line Charge	$6.50	$6.50	$6.50	$6.50
FUSF Surcharge	$0.58	$0.58	$0.58	$0.58
Telecomm Relay	$0.06	$0.06	$0.06	$0.06
Wyoming Lifeline	$0.01	$0.01	$0.01	$0.01
E 9-1-1	$0.75	$0.75	$0.75	$0.75
Federal Excise Tax	$0.93	$1.16	$1.16	$1.16
Wyoming Sales Tax	$1.24	$1.55	$1.55	$1.55

[18] *Order on Remand*, paragraph 95, "We reject arguments that we should not adopt the Joint Board's recommendation to permit states to seek further federal action because the process is ill-defined."

[19] The number of lines in this illustration are taken from the Universal Service Administrative Company's High Cost Model Support Projected by Wire Center, for Fourth Quarter 2004 as found in USAC Appendix HC15.

APPENDIX E

Joint Petition to the FCC for Supplemental Universal Service Funds for Customers of Wyoming's Non-Rural Incumbent Carrier (submitted December 21, 2004)

FINAL BILL TO CUSTOMER	**$33.17**	**$42.28**	**$42.28**	**$42.28**
Commission Benchmark	$34.16	$34.16	$34.16	$34.16
Comparability Shortfall	*$0*	*$8.12*	*$8.12*	*$8.12*
Number of Lines	138,850	11,269	12,880	24,383
Necessary Additional Support	$0	$1,098,051	$1,255,027	$2,375,880

As illustrated in the above table, Wyoming would need additional support of about $4.7 million annually in order to make the Qwest customers' rates reasonably comparable to nationwide urban rates. With nearly 113 million households nationally with telephones[20], and nearly $112 billion in annual interstate and international revenues[21], Wyoming's request for supplemental federal support is modest, especially in light of our competitive preparedness. Our requested $4.7 million could be collected at a rate of *just over four cents per household per year.*

Wyoming rules require, if these supplemental funds were provided, that the money would be flowed back directly to customers as bill credits. Thus, we, the Commission and industry may all be assured that the funds will not be inappropriately used by Qwest. This is money for Qwest's customers, not its coffers.

Even though our Joint Petition may cause some respondents to question the competitive fairness of allowing the incumbent supplemental funds to achieve rate comparability, the needs of Qwest's rural customers in Wyoming are well documented and real. Some may claim that providing supplemental funds would only be proper if they were also paid out to competitors on the same dollar per customer basis as is allowed to the incumbent. While we agree that the question of whether any equivalent supplemental funds should be provided to Qwest's competitors needs to be resolved, it should be done in a manner that neither interferes with nor postpones the Commission's response to our petition. We are unaware of any Commission orders to date which have addressed, let alone resolved, this supplemental funding issue.

CONCLUSION

Wyoming has eliminated implicit subsidies from rates and implemented rates under which each service covers its actual costs. We have implemented an explicit state universal service funding mechanism and have otherwise prepared Wyoming telecommunications markets for competition, consistent with the federal and Wyoming Telecommunications Acts. As the Commission had often recognized, implicit subsidies are unsustainable in the competitive environment envisioned by the 1996 Act. *See, e.g., Order on Remand*, paragraph 16. The Commission called on the states in the *Order on Remand*, paragraph 127, to "replace implicit support mechanisms with explicit support mechanisms that will be sustainable in a competitive environment." We have answered your call.

We support the Commission's decision to allow states "to request further federal action, if necessary, based on a demonstration that the state's rates in rural, high-cost areas served by non-rural carriers are not reasonably comparable to urban rates nationwide." You rightly place the burden on the state to show that it "has taken all reasonable steps to achieve reasonable

[20] Information taken from Commission's *Telephone Subscriber Report* issued August 2004.
[21] Information taken from *Federal-State Joint Board on Universal Service Monitoring Report* issued October 2004.

comparability through state action and existing federal support." In response, Wyoming has made the needed annual review of rates in rural high-cost areas served by Qwest (Wyoming's non-rural carrier) to assess their comparability to nationwide non-rural rates. Wyoming has submitted the annual certification regarding rate comparability. We have explained why such comparability has not been achieved. In this Joint Petition, we have demonstrated that federal and state actions taken together are not sufficient to achieve the required rate comparability. Therefore the WPSC and the WOCA hereby request, based on our showings above, that the Commission take immediate remedial action to allow additional federal support for Qwest's rural customers in Wyoming as described and quantified above.

Respectfully Submitted,

Rob Hurless	Steve Furtney	Kathleen A. Lewis	Bryce J. Freeman
Chairman, WPSC	Commissioner, WPSC	Commissioner, WPSC	Administrator, WOCA

APPENDIX E

Joint Petition to the FCC for Supplemental Universal Service Funds for Customers of Wyoming's Non-Rural Incumbent Carrier (submitted December 21, 2004)

THE STATE OF WYOMING

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September 30, 2004

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RE: New Residential Rate Comparability Certification for Wyoming's Non-Rural Incumbent Carrier Serving in Rural Areas within Wyoming Pursuant to 47 C.F.R. § 54.316
(CC Docket No. 96-45)

Dear Ms. Dortch and Ms. Flannery:

The Wyoming Public Service Commission (WPSC) hereby submits, pursuant to 47 C.F.R. § 54.316, its initial residential rate comparability certification to the Federal Communications Commission (FCC) and to the Universal Service Administrative Company (USAC). 47 C.F.R. § 54.316, **Rate comparability review and certification for areas served by non-rural carriers,** requires state commissions to annually review the comparability of residential rates in rural areas of the state served by non-rural incumbent local exchange carriers to urban rates nationwide. Qwest Corporation (Study Area Code 515108) is the only non-rural incumbent local exchange carrier in Wyoming and Qwest does serve in the rural areas of the state. 47 C.F.R. § 54.316 further requires the WPSC to certify to the FCC and the USAC whether the rates are reasonably comparable pursuant to the universal service principles contained in section 254(b)(3) of the federal Telecommunications Act of 1996.

APPENDIX E

Joint Petition to the FCC for Supplemental Universal Service Funds for Customers of Wyoming's Non-Rural Incumbent Carrier (submitted December 21, 2004)

This residential rate review and certification is pursuant to the FCC's expanded certification process contained in the FCC's *Order on Remand, Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order,* CC Docket No. 96-45, FCC 03-249 released October 27, 2003 (commonly referred to as the *Remand Order*). This initial rate review and certification is due October 1, 2004, pertaining to residential rates in effect as of July 1, 2004, with rates compared to the current nationwide urban rate benchmark. The nationwide urban rate benchmark equals the most recent average urban rate plus two weighted average standard deviations. The average urban rate and standard deviation are found in the most recent *Reference Book of Rates, Price Indices, and Expenditures for Telephone Service* published by the Wireline Competition Bureau of the FCC. For this initial certification, the nationwide urban rate benchmark is $34.16 per month.

Exhibit 1 to this filing is a presentation of the Basic Service Rate Template for Wyoming as more fully described in the Joint Board's Recommended Decision, in paragraph 86 of the FCC's *Remand Order* and contained in Appendix F to the *Remand Order*. This Exhibit presents, in detail, the residential rate data for the most rural areas (Rural Zone 3) within Wyoming as required by the *Remand Order* and 47 C.F.R. § 54.316. This Exhibit shows that these rural residential customers, served by the non-rural incumbent local exchange carrier, pay a monthly rate of $42.28, or 124 percent (124%) of the nationwide urban rate benchmark. Because of the manner in which federal support is targeted, residential customers located in Rural Zone 1 and Rural Zone 2 also pay the monthly rate of $42.28. One hundred percent (100%) of the federal high cost support received by Qwest in Wyoming is reflected as a bill credit to its rural customers. Based on these facts, the methods in which the average urban rate was calculated and the rate comparison requirements contained in the *Remand Order*, the Wyoming Commission must conclude that its rural residential rates are not reasonably comparable to the nationwide urban rate benchmark.

There are several reasons why the rates are not reasonably comparable, with the main factor being the fact that Wyoming has cost-based rates for its rural areas and no other state does (a fact recognized several times by the FCC in the *Remand Order*). The WPSC has fully implemented the statutory mandates of the pro-competitive Wyoming Telecommunications Act of 1995 (Wyoming Act) (W.S. §§ 37-15-101 through 37-15-502). Relevant sections of the Wyoming Act are W.S. § 37-15-402 which requires cost-based pricing for all retail telecommunications services in Wyoming, W.S. § 37-15-403 which prohibits cross subsidies and eliminates implicit subsidies and W.S. § 37-15-501, which established the Wyoming Universal Service Fund. Qwest now has in place de-averaged cost-based residential rates with all implicit subsidies removed from the residential rates and the WPSC has implemented the explicit subsidy support program – the Wyoming Universal Service Fund. The residential rate shown on Exhibit 1 to this certification reflects the truly high cost, rural nature of much of Wyoming.

Since the WPSC has told the "Wyoming Story" many times in comments and reply comments during numerous federal Universal Service Fund proceedings, the FCC is very familiar with our situation. The WPSC was an active participant in the Rural Task Force on these important universal service issues. A recent example of this is the *Remand Order* where the FCC mentioned Wyoming and its unique circumstances several times (e.g., *Remand Order* ¶ 144).

Another factor greatly impacting the rate comparison is the continued presence of substantial amounts of implicit subsidies in the rates that constitute the average urban rate and the nationwide urban rate benchmark.

In conclusion, the WPSC very much intends to pursue remedies to this residential rate disparity through requests for further federal action provided to state commissions in Part IV.D.2.e. of the *Remand Order*. The WPSC believes we can clearly demonstrate that the rates in rural, high-cost areas of Wyoming served by the non-rural incumbent local exchange carrier are not reasonably comparable to urban rates nationwide and that Wyoming has taken all reasonable steps to achieve reasonable comparability through our actions and the application of existing federal support. Our request for further federal action may include variations of the additional targeted federal support as detailed and described in Part V.C.3.and Appendix G of the *Remand Order*. The WPSC looks forward to working with the FCC, the USAC and all other interested parties in achieving the Universal Service goals and principles contained in Section 254 of the federal Telecommunications Act of 1996.

Sincerely,

/s/ Steve Furtney
Steve Furtney
Deputy Chair
Wyoming Public Service Commission

APPENDIX E

Joint Petition to the FCC for Supplemental Universal Service Funds for Customers of Wyoming's Non-Rural Incumbent Carrier (submitted December 21, 2004)

Exhibit 1

Wyoming Public Service Commission
Rate Comparability Analysis
Residential Rate Data

Residential Customers in the Most Rural Areas of Wyoming Served by the Non-Rural Incumbent Local Exchange Carrier

Rate, Surcharges, Credits and Taxes as of July 1, 2004:

Basic Residential Access Line Rate	$69.35
Federal Universal Service Fund Credit	($28.00)
Wyoming Universal Service Fund Credit	($9.68)
Net Residential Rate Subject to Mandatory Surcharges and Taxes	**$31.67**
Federal Subscriber Line Charge	$6.50
Federal Universal Service Fund Surcharge	$0.58
Telecommunications Relay System Surcharge	$0.06
Wyoming Lifeline Program Surcharge	$0.01
E911 Emergency Calling System Tax	$0.75
Federal Excise Tax	$1.16
Wyoming State Sales Tax	$1.55
Total Basic Residential Service Rate to Customer	**$42.28**

APPENDIX E

Joint Petition to the FCC for Supplemental Universal Service Funds for Customers of Wyoming's Non-Rural Incumbent Carrier (submitted December 21, 2004)

Appendix F

Commission Rural and Non-Rural ETC Certifications to the FCC

December 21, 2004

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RE: Certification of High Cost Support for Non-Rural Carriers and Eligible Telecommunications Carriers (ETCs) Serving Lines in the Service Area of a Non-Rural Carrier Pursuant to 47 C.F.R. § 54.313 (CC Docket No. 96-45)

Dear Ms. Dortch and Ms. Flannery:

The Wyoming Public Service Commission (WPSC) hereby submits, pursuant to 47 C.F.R. § 54.313, its annual certification to the Federal Communications Commission (FCC) and the Universal Service Administrative Company (USAC). 47 C.F.R. § 54.313 requires that the appropriate state regulatory authority annually certify those non-rural incumbent local exchange carriers and/or eligible telecommunications carriers serving lines in the service area of a non-rural incumbent local exchange carrier, within their jurisdiction, for purposes of receiving federal universal service fund support.

The WPSC has solicited from its jurisdictional non-rural incumbent local exchange carriers and ETCs serving lines in the service area of a non-rural incumbent local exchange carrier, their respective signed affidavits that set forth the manner in which federal universal service support funds have been used, and will be used during the applicable 12-month period for which support funds are being requested. The WPSC also requested further accounting data and financial documentation showing that the carriers were using the federal high cost support for its intended purposes. The respective affidavits and additional documentation will be made available to the FCC and /or USAC upon request.

Appendix F

Commission Rural and Non-Rural ETC Certifications to the FCC

December 21, 2004

As the appropriate state regulatory authority with jurisdiction to regulate, *inter alia,* the intrastate activities of telecommunications companies serving in Wyoming, the WPSC hereby identifies the following non-rural incumbent local exchange carriers and ETCs serving lines in the service area of a non-rural incumbent local exchange carrier, as being certified to receive federal universal service support funds:

Carrier	Study Area Code
Advanced Communications Technology	519004
Qwest Corporation	515108
Silver Star Communications	519001
Union Telephone Company d/b/a Union Cellular	519905
VCI Company	519006
Western Wireless	519002

Western Wireless has been designated by the FCC as an ETC in certain non-rural service areas within the state of Wyoming. ETC status was granted to Western Wireless by the FCC due to the fact that the WPSC determined that it did not, at that time, have authority to grant ETC status to wireless providers. The WPSC now has the statutory authority to designate wireless providers as ETCs and did so recently in the case of Union Telephone Company d/b/a Union Cellular. The WPSC continues to be without authority to regulate the operations or rates of Western Wireless or Union Cellular. Based on the affidavit and other documentation filed by VCI Company (VCI), it is our understanding that VCI currently utilizes its designation as an ETC to participate in federal low income support programs and that VCI does not receive federal high cost support.

Pursuant to the representations contained in the affidavits submitted by these carriers, and the Commission's review of the additional documentation and support required to be filed by the carriers this year, the Commission certifies that these identified carriers have affirmed they will use the federal universal service support funds only for the provision, maintenance, and upgrading of facilities and services for which support is intended, consistent with section 254(e) of the federal Communications Act of 1934, as amended. This includes High Cost Model support (HCM).

Sincerely,

/s/ Rob Hurless	*/s/Steve Furtney*	*/s/Kathleen A. Lewis*
Rob Hurless	Steve Furtney	Kathleen A. Lewis
Chairman	Deputy Chair	Commissioner

Appendix F

Commission Rural and Non-Rural ETC Certifications to the FCC

December 21, 2004

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RE: Certification of High Cost Support for Rural Carriers and Eligible Telecommunications Carriers (ETCs) Serving Lines in the Service Area of a Rural Carrier Pursuant to 47 C.F.R. § 54.314 (CC Docket No. 96-45)

Dear Ms. Dortch and Ms. Flannery:

The Wyoming Public Service Commission (WPSC) hereby submits, pursuant to 47 C.F.R. § 54.314, its annual certification to the Federal Communications Commission (FCC) and the Universal Service Administrative Company (USAC). 47 C.F.R. § 54.314 requires that the appropriate state regulatory authority annually certify those rural incumbent local exchange carriers and/or eligible telecommunications carriers serving lines in the service area of a rural incumbent local exchange carrier, within their jurisdiction, for purposes of receiving federal universal service fund support.

The WPSC has solicited from its jurisdictional rural incumbent local exchange carriers and ETCs serving lines in the service area of a rural incumbent local exchange carrier, their respective signed affidavits that set forth the manner in which federal universal service support funds have been used, and will be used during the applicable 12-month period for which support funds are being requested. The WPSC also requested further accounting data and financial documentation showing that the carriers were using the federal high cost support for its intended purposes. The

respective affidavits and additional documentation will be made available to the FCC and /or USAC upon request.

As the appropriate state regulatory authority with jurisdiction to regulate, *inter alia,* the intrastate activities of telecommunications companies serving in Wyoming, the WPSC hereby identifies the following rural incumbent local exchange carriers and ETCs serving lines in the service area of a rural incumbent local exchange carrier, as being certified to receive federal universal service support funds:

Carrier	Study Area Code
All West Communications, Inc.	512290
CenturyTel of Wyoming, Inc.	512299
Chugwater Telephone Company	512289
Columbine Telephone Company d/b/a Teton Telecom	462204
Dubois Telephone Exchange, Inc.	512291
Golden West Telecommunications Cooperative, Inc.	391659
Project Telephone Company	482250
RT Communications, Inc.	512251
Range Telephone Cooperative, Inc.	512251
Silver Star Communications	512295
Tri-County Telephone Association	512296
TCT WEST	512296
Union Telephone Company	512297
United Telephone Company of the West d/b/a Sprint	511595
Western Wireless	519002
Union Telephone Company d/b/a Union Cellular	519905

Based upon the representations contained in the affidavits submitted by these carriers, and the Commission's review of the additional documentation and support required to be filed by the carriers this year, the Commission certifies that these identified carriers will use the federal universal service support funds only for the provision, maintenance, and upgrading of facilities and services for which support is intended, consistent with section 254(e) of the federal Communications Act of 1934, as amended. This includes High Cost Loop support (HCL), Local Switching Support (LSS) and high cost support received pursuant to the purchase of exchanges.

Sincerely,

/s/ Rob Hurless	*/s/Steve Furtney*	*/s/Kathleen A. Lewis*
Rob Hurless	Steve Furtney	Kathleen A. Lewis
Chairman	Deputy Chair	Commissioner

APPENDIX G

Letter to Senator McCain and Representative Barton on inadequate federal universal service support for rural telecommunications customers (May 12, 2004)

THE STATE OF WYOMING

DAVE FREUDENTHAL
GOVERNOR

Public Service Commission

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DEPUTY DIRECTOR

May 12, 2004

The Honorable John McCain
Chairman, Senate Committee on Commerce, Science and Transportation
United States Senate
Washington, DC 20510

The Honorable Joe Barton
Chairman, House Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Chairman McCain and Chairman Barton:

On December 24, 2003, the Federal Communications Commission (Commission) issued its projections for federal universal service funding (FUSF) in 2004. In doing so, the Commission confirmed that **millions of rural Americans, including many in your home states, will continue to be deprived of the benefits of universal service, contrary to the clear intent of Congress expressed in Section 254(b) of the Telecommunications Act of 1996.**

Without FUSF support, needed investments in the telephone network are not occurring in many rural communities, putting them at a competitive disadvantage in today's increasingly digital economy.

Approximately 70% of rural telephone consumers are served by one of 30 so-called "non-rural" carriers, which is what the Commission calls large carriers that serve both urban and rural areas. In 2003, under the FUSF program for these carriers, almost 85% of the money went to just three states (Mississippi, Alabama, and West Virginia), with the remainder going to just five more states (Maine, Vermont, Kentucky, Montana and Wyoming). This distribution recognizes in part that the cost of serving customers in Wyoming is the highest in the contiguous 48 states, but **consumers in 42 states, including Arizona, Texas, and many of the least densely populated states in the country, paid more than $200 million into this critical component of the USF and received zero benefit in return.**

A Wyoming example illustrates the problem. Even though Qwest, Wyoming's only non-rural carrier, receives $9,096,591 per year in federal USF support to serve rural customers, rural carriers in Wyoming receive about three times as much federal support for serving a comparable number of rural customers.

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For 2004, the FCC has updated its line data and eligibility formula, resulting in an estimated $50 million increase in this part of the FUSF. However, the new state funding distributions are still arbitrary and unfair. The FCC projects only two additional states receiving funds (Nebraska and South Dakota); two states are cut back (Maine and West Virginia); and most of the increase flows to states that were already beneficiaries. **Forty states are still shut out of the program entirely.**

We know for a fact that the cost of service is high in Wyoming because Wyoming has removed implicit subsidies from local rates. As a consequence, Wyoming customers pay about $32.00 per month, plus about $8 to $10 for taxes, fees, subscriber line charges and other surcharges, out of their own pockets for basic local service in rural areas served by non-rural carrier Qwest. We would challenge other states receiving large portions of the available federal USF support to make such a showing and thereby prove that they have indeed identified true local service costs and have moved to a competitive local service pricing framework of the type envisioned by federal telecommunications law.

The carefully worded universal service principles in the Telecommunications Act of 1996 show that Congress did not intend these huge disparities. The inadequate support for Wyoming, with its known high costs, further illustrates the problem. Something is very wrong.

We strongly encourage you to schedule action this year on legislation to ensure a fairer, better targeted distribution of this fund, focused on states where the cost of service is high and there are rural communities that truly need the help. Legislation to accomplish this goal without raising consumer costs, taxes, surcharges or federal spending has been offered by Senator Gordon Smith (S. 1380) and Representative Lee Terry (H.R. 1582). These bills enjoy broad, bipartisan support in both houses of Congress and across the country.

It's important to note that these bills would not affect the separate FUSF account for small rural carriers and co-ops. Those funds are dedicated to a separate category of consumers and are irrelevant to meeting the needs of the majority of rural consumers served by larger carriers.

We also recognize there are many problems in the broader FUSF program. However, comprehensive reform of FUSF may take years to accomplish. In contrast, targeted reform of the "non-rural" account can be accomplished relatively quickly and easily. In the interests of ensuring fair treatment for millions of rural Americans, the high-cost, non-rural program can and should be fixed this year.

Sincerely,

ROB HURLESS
Chairman

STEVE FURTNEY
Deputy Chair

cc: Governor Dave Freudenthal
Members of the Senate Committee on Commerce, Science and Transportation
Members of the House Committee on Energy and Commerce
Members of the Wyoming Senate Delegation
Members of the Federal Communications Commission

APPENDIX H

OCA Comments on Elimination of Rate-of Return Regulation of ILECs

February 13, 2004

Before the
Federal Communications Commission
Washington, D.C. 20544

In the Matter of	)	
Western Wireless Corporation	)	
Petition for Rulemaking to Eliminate	)	RM 10822
Rate-of-Return Regulation of	)	
Incumbent Local Exchange Carriers	)	CC Docket No. 96-45
Federal-State Joint Board on	)	
Universal Service	)	

Reply Comments of the Wyoming Office of Consumer Advocate
On Petition for Rulemaking to Eliminate
Rate-of-Return Regulation
Of Incumbent Local Exchange Carriers

(Submitted February 13, 2004)

The Wyoming Office of Consumer Advocate (WOCA) hereby submits its Reply Comments in response to Western Wireless Corporation's Petition for Rulemaking to Eliminate Rate-of-Return Regulation of Incumbent Local Exchange Carriers (Western Wireless Petition). Our comments are directed to the need to achieve and maintain affordable rates in all areas of the nation, and the misunderstandings that seem to permeate Western Wireless' Petition and the comments of its supporters. Yet, for reasons far different than those advocated by Western Wireless and its supporters, we too advocate for a review and update of the mechanics of the federal universal service program.

The WOCA is an interested party in this proceeding. Created in 2003[1], the WOCA is charged with representing the interests of Wyoming citizens and all classes of utility customers in matters involving public utilities. In our role of representing the public interest of Wyoming citizens, we are keenly interested in the preservation of the national telecommunications system, particularly in rural communities; the advancement of universal service, particularly in low-density states; and the affordability of telecommunications service, particularly in high-cost areas.

[1] The WOCA was created in 2003 with the passage of legislation enacting W.S. § 37-2-401 and 404. While the WOCA is a newly created entity, it is not unfamiliar with the issues raised in Western Wireless' Petition. The members of the WOCA, former members of the staff of the Wyoming Public Service Commission, have been responsible during the past nine years for assisting with the development and implementation of the Wyoming Universal Service Fund, the transition from monopoly to competitive ready telecommunications markets, and recommendations regarding the repricing of telecommunications services to move from implicit to explicit subsidies. Members of the WOCA have also actively met with the Joint Board, the Commission, and the Rural Task Force on federal universal service fund issues.

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In its Petition, filed on October 30, 2003, Western Wireless proposes to eliminate rate-of-return regulation of rural incumbent local exchange carriers, for the purpose of determining their federal high-cost universal service support and interstate access charges. Instead, Western Wireless proposes that a support model be developed that is the lower of the wireline or wireless forward-looking cost in each geographic area, and that based on the developed forward-looking cost, support be provided only when retail rates exceed a predetermined minimum "affordable" level. Western Wireless further proposes that the new system be phased-in, with a safety net, and furthermore, that access charge reform be implemented.

The WOCA finds portions of Western Wireless petition appealing and worthy of further consideration, but is concerned about the misunderstandings that underlie much of the proposal. While we would like to see the federal universal service support mechanisms revisited – for both rural and non-rural carriers – we are concerned that the correct endpoint from the revisitation is presumed, and thus, Western Wireless attempts to construct a self-fulfilling prophesy. We are concerned that the Western Wireless proposed exercise suggests a predetermined outcome, and will result in unaffordable rates and rural rates not comparable to urban rates. Instead, we would rather see a more global review of the support mechanism(s), with an eye to some finality regarding the means of support, the longer-term sustainability of the funding, and the advancement of competitive-ready markets, while still keeping the goal of affordable rates and quality of service at the forefront. It is in this context, that the WOCA wishes to advocate several of the suggestions that have already come forward in the initial round of comments in this proceeding, while also looking to correct several of the misconceptions that have been promoted by Western Wireless and its supporters.

In its Petition, Western Wireless states that there is a need to "release rural customers from the grips of the RLECs whose dominant position in the local market threatens the ability of rural America to have access to basic and advanced services comparable to those available in urban areas."[2] The WOCA does not advocate that the Commission or any Joint Board to whom this matter may be referred adopt the Western Wireless statement as a legitimate reason to reexamine the current universal service support mechanism. The Wyoming Public Service Commission currently has before it a petition requesting that it declare that Chugwater Telephone's[3] basic local exchange services are competitive, based solely on the other non-landline carriers serving in the area (i.e., wireless providers and internet providers). While this matter is still pending in Wyoming, the record on that case shows that there are many customers in that one small Wyoming exchange who have chosen wireless for either their primary or secondary line. Whether or not the Wyoming statutory definition of effective competition has been met, it is clear that wireless carriers are making competitive inroads in even some of the most rural states in the nation, such as Wyoming.

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[2] Page 1 of Western Wireless' Petition for Rulemaking to Eliminate Rate-of-Return Regulation of Incumbent Local Exchange Carriers.

[3] Chugwater Telephone Company, Inc. is one of the smallest incumbent local exchange carriers in Wyoming, with less than 300 access lines.

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Rather than advocating that rural incumbent carriers have an impenetrable market share that must be attacked by completely revamping the federal support program, we think that the better question is whether wireless companies will be held to the same standards as the incumbent landline companies, such that competition can proceed on an equitable basis, without the advantage being tipped to the side of the wireless companies. For example, in December 2000, Western Wireless was given eligible telecommunications carrier (ETC) status by the FCC in December 2000 for its Wyoming operations. This ETC status was granted based on an application wherein Western Wireless indicated that it would make a universal service offering that met the entirety of the list of supported services to be provided by an ETC carrier. Yet, as of today, Western Wireless is not offering this promised service in Wyoming, in spite of projections that Western Wireless will receive more than $9 million[4] in federal universal service fund support in 2004 based on its self-reported Wyoming line counts. This is more than the amount estimated to be received by any other ETC in Wyoming, with the exception of Qwest.[5] Thus, the WOCA believes that wireless carriers have neither a barrier to entry in the rural areas nor a disadvantage when it comes to receiving federal support – especially given the self-reporting nature of their line counts.

Western Wireless also advocates that forward-looking costs are the only true measure of the factors that drive economic decision-making.[6] What Western Wireless fails to explain is that regardless of whether forward-looking costs or historical costs are used to determine rates and support levels, the true driver of the need for subsidies is the same: the elimination of implicit subsidies. Wyoming has undertaken a systematic process of moving its local exchange rates to or above cost with the cost being defined as total service long-run incremental cost (TSLRIC). While doing so, we have also continued to look at earnings levels based on traditional measures of earned rates-of-return on historical costs. For several providers who had recently made major upgrades and modernized their networks, we found that the historical and forward-looking costs were not significantly different. However, we found that there were very large rate increases necessary in order to bring the local service rates to or above either the historical or the forward-looking cost.[7] We are concerned that Western Wireless' comments may be misunderstood as suggesting that the use of forward-looking costs would somehow limit or eliminate the need for a sizable federal universal service fund. Clearly, the Wyoming experience is that the use of forward-looking costs, accompanied by the elimination of implicit subsidies, very clearly drives the need for a sustainable, predictable, and adequately sized federal universal service fund.

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[4] See Universal Service Administrative Company High Cost Loop Support Projected by State by Study Area for First Quarter 2004.

[5] Based on the same USAC report, Qwest is expected to receive about $12.6 million in Wyoming.

[6] Page 4 of Western Wireless' Petition.

[7] Some customers in exchanges of United Telephone Company of the West have rates prior to state universal service fund support, but after federal support, that are more than eight times their previously authorized rate due to the elimination of implicit subsidies.

Western Wireless also argues[8] that rate-of-return regulation is the "true cause of the growth of the high-cost universal service fund, which threatens the long-term viability of the fund." Yet, there is a lack of discussion in either Western Wireless' petition, or the comments of its supporters, about the impact that the proposals might have on the long-term viability of an affordable, ubiquitous, national telephone network. For instance, T-Mobile has suggested that the Commission should immediately cap total distributions for USF support to carriers serving rural areas so universal service in non-rural areas is not jeopardized.[9] Rather than capping the size of the fund, the WOCA suggests developing a funding method that will allow for the preservation and advancement of affordable rates and markets that are competition-ready and allows for the long-term sustainability of the fund. We acknowledge that all of those requirements may not be met with the current method, and thus, agree that it would be useful to review the current funding method for both rural and non-rural carriers. But again, we do not wish in the meantime to impact the funding for customers in states who have already taken broad steps to prepare for competition, as Wyoming has. Thus, we do not support a freeze or dramatic change in the current funding until a new, acceptable, tested method is in place and is ready for implementation.

In its Petition, at pages 6 and 7, Western Wireless lists the pending and soon to be initiated cases that are closely related to what it seeks in its petition, that is, a new proceeding to review the universal service funding and access rates for rural carriers. Yet, in spite of admitting that there are already a number of proceedings in the works or on the way to addressing these issues, Western Wireless wants still yet another proceeding addressing these matters. In this regard, we agree with the comments of USTA, et al., who state at pages 2-3 of their comments, "Opening a new proceeding to consider issues that are already considered in other contexts is contrary to basic administrative law principles and would be a waste of the Commission's time and industry resources." We further agree with the USTA et al. Joint Comments that the Western Wireless petition can be boiled down to a request for the review of universal service funding for rural carriers and for access charges to be based on forward looking costs.[10] As we have already stated, the WOCA advocates a review of these issues but there is no need to do so with the presumption of eliminating the use of historical costs as any basis or factor for either ratemaking or funding universal service support. We also believe that such a reexamination of these issues is best done straightforwardly as a universal service related matter, rather than under the guise of rejecting historical regulatory practices.[11]

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[8] See page 5 of Western Wireless Petition.

[9] See page 12 of T-Mobile's Comments filed January 16, 2004.

[10] The Joint Comments state at pages 2-3, "In the end, however, its *Petition* amounts to nothing more than a request that the Commission base universal service support and access charge revenue requirements for ROR ILECs on forward-looking economic cost (FLEC) models rather than historical revenue requirements."

[11] There is no need to discuss the flaws, disincentives, benefits or other related aspects or rate-of-return regulation when determining this matter. Instead, the Commission only needs to concentrate on affordable rates and a sustainable fund in order to address the issues that clearly underlie the filing of the Petition. To go further would create opportunities for unnecessary arguments for or against rate-of-return regulation, a traditional regulatory practice used by many states and non-federal jurisdictions.

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February 13, 2004

At page 22 of its Petition, Western Wireless cites a U.S. Court of Appeals for the D.C. Circuit decision, and specifically refers to the cite "because a firm can pass any cost along to ratepayers (unless it is identified as imprudent), its incentive to innovate is less sharp than if it were unregulated." Western Wireless then uses this statement to determine that the disincentives and inefficiencies related to rate-of-return regulation would not be present if its proposal to use forward-looking costs as part of the regulation were adopted. Yet, this is not consistent with the statement of the Court. The Court discusses the differences in incentives and efficiency when comparing regulated and unregulated situations. That is not the situation to be addressed here. Because of the lack of universal, proven, effective competition in American telephone markets, the choice at hand is the type of regulation to be used – not whether to regulate or deregulate. Hence, there should be no reliance on the concept that markets *will* be more efficient or innovative or technologically advanced if forward-looking costs replace the historical costs. There are other factors that will have a significant impact on market efficiencies and innovation, including access to capital, the ability for existing and new firms to fund network upgrades and replacements, the willingness of customers to pay the going-rate for new services, and even technological advances.[12]

In its comments supporting the Western Wireless Petition, T-Mobile states, at page 9:
The Commission has already determined that (1) the current Rural Task Force plan is an "interim" plan only that will end in mid-2006; (2) carriers serving rural areas should "shift gradually to a forward-looking economic cost methodology;" and (3) the Joint Board should develop a more targeted, long-term USF support plan before the current interim plan expires. In fact, the Commission had stated that it would "refer these [long-term] issues to the Joint Board no later than January 1, 2002."

T-Mobile then continues by advocating "the Commission should now expeditiously refer this matter to the Joint Board. Any additional delay will simply mean that the Joint Board – and the Commission – will have even less time to evaluate and develop a long-term plan."

The WOCA agrees that now is the time to refer this matter to the Joint Board and begin a meaningful and complete review of the funding method. We also agree that any future plan should be targeted to those who need it according to all of the principles contained in Section 254 of the federal Telecommunications Act of 1996 – and not just selective principles advocated by individual parties.

We further agree with T-Mobile that the review of the funding method should look for a method that will facilitate the eventual consolidation of the rural and non-rural USF programs.[13] Wyoming recognized years ago that the inequities between rural and non-rural funding needed to be resolved, as it pointed to adjoining, sparsely populated, non-dense exchanges served by rural

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[12] For instance, the deployment of telephony related broadband has historically had deployment problems due to its distance limitations. This engineering problem will not be resolved with a change in regulatory schemes.
[13] See T-Mobile Comments of January 16, 2004 at pages 11-12.

and non-rural companies with very different funding results. The Wyoming Public Service Commission at the time expressed grave concern about how disparities in the funding were impacting the competitiveness of these exchanges. We still find the example relevant and a reason that eventual consolidation of the two funding mechanisms must be a stated goal for any new universal service investigations.

However, we disagree with both Western Wireless and T-Mobile that there should be a stated goal of basing the rural carrier funding on models that use forward-looking costs. We are concerned that if this is the pre-stated answer to the problem, there will be an attempt to place a square peg in a round hole. It is not clear that the model, as it currently stands or as it could be modified, would allow for appropriate, sufficient, or adequate funding for the rural areas. Leaving aside the philosophical arguments of whether forward-looking costs are better used than historical, actual costs, there are a number of concerns about rural geo-coding and customer location placement in the model that are yet to be resolved satisfactorily. There are different facts and circumstances that must be considered when it comes to line loops, size of customer premises and location of demarcation points, and other similar items that need to be revisited as part of a decision to use the synthesis or related cost model. These challenges require time for adequate study and testing. Until this occurs, there should be no presumption that the forward-looking costs will provide a better solution to rural funding and achieving urban/rural rate comparability than some other method might.

To presume that forward-looking costs are best also eliminates any creative solutions that might have been developed since the last look at the rural funding method several years ago. For example, there might be a solution that would rely neither on forward-looking nor historical costs, but might be based on rates and prices themselves, with some parameters stated as to the development or level of those rates. Perhaps there is a solution waiting to be presented that relies on forward-looking costs for basic support with historical costs for a safety net. Or, there could be a solution in the development stage that has a tiered based plan (such as that advocated in earlier proceedings by Qwest) that would designate sharing between state and federal funds. None of these ideas should be foreclosed prior to the commencement of the proceeding.

Finally, Western Wireless requests further access reform based on the use of forward-looking costs. While the WOCA does not conceptually oppose further access reform, we are concerned about the form that such access pricing changes have taken in recent days. The general nature of access reform has been to reduce the per-minute charges that have been previously billed to long-distance providers, and increase flat rates paid directly by end-users. The effect of this is to increase the end-user's total bill, whether he/she benefits from accompanying reductions in long-distance rates or not, and this is particularly true for those who do not make many toll calls. But, all this has happened without a complete recognition that these additional flat-rated surcharges impact the affordability of the overall bill paid by end users. As the Wyoming Public Service Commission has pointed out in many of its previous universal service comments, customers who take nothing but plain-old-telephone-service may have taxes and surcharges of $10 or more added to their basic service charge. This must enter into the formula for determining whether rates are affordable and whether urban/rural rates are comparable – especially if the Commission accepts Western Wireless' suggestion to do even more of this kind of rate restructuring.

APPENDIX H

OCA Comments on Elimination of Rate-of Return Regulation of ILECs

February 13, 2004

In conclusion, the WOCA appreciates the opportunity to submit reply comments in response to Western Wireless' Petition. While disagreeing with many of the reasons stated by Western Wireless for its request to reexamine rural universal service funding, we agree with the overall concept that this issue again be reviewed. However, the review should begin with a blank slate, and not based on unjustified presumptions that could become self-fulfilling prophecies that jeopardize the continuation of nationwide affordable telephone service. The WOCA would be pleased to further discuss these issues with the Commission and looks forward to participating in future proceedings on this matter.

Respectfully Submitted,

/s/ Bryce J. Freeman

Bryce J. Freeman
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APPENDIX I

OCA Reply Comments on Universal Service Support for Rural and Non-Rural Carriers
September 21, 2004

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	CC Docket No. 96-45
Federal-State Joint Board	)	
On Universal Service	)	

REPLY COMMENTS OF
THE WYOMING OFFICE OF CONSUMER ADVOCATE
(Submitted September 21, 2004)

The Wyoming Office of Consumer Advocate (Wyoming OCA) is an interested party in this proceeding. The Wyoming OCA is charged with representing the interests of Wyoming citizens and all classes of utility customers in matters involving public utilities. We are concerned about sustaining federal support to rural and non-rural telecommunications providers and their customers, and the availability of affordable high-quality telecommunications services nationwide, particularly in extremely rural states like Wyoming. Maintaining or reducing the size of the universal service fund should not become the sole objective when reviewing the administration of federal universal service programs.[1] The fund must be sized to ensure affordability and availability of services in all areas – both urban and rural – throughout the nation.[2]

On June 8, 2004, the Federal Communications Commission (Commission) released its Notice of Proposed Rulemaking (NPRM) seeking comment on the Recommended Decision of the Federal-State Joint Board on Universal Service (Recommended Decision) concerning the process for designation of eligible telecommunications carriers (ETCs) and the Commission's rules regarding high-cost universal service support. The Commission seeks comment on three major areas of recommendation: (1) whether the Commission should adopt permissive federal guidelines encouraging state commissions to consider certain additional minimum qualifications when evaluating ETC designation requests and whether higher levels of scrutiny are required for ETC applications in rural areas; (2) whether high-cost support should be limited to a single connection, and if so, how to administer such a limitation; and (3) whether the Commission's rules should be amended relative to required certifications and the filing of line-count data.

[1] This view is opposition to the view of the Public Utility Commission of Oregon, whose primary comments focus on ways to limit the size of the fund, including suggestions for both short-run and long run means for controlling USF growth.

[2] Rate affordability and funding sufficiency are both specifically stated principles of universal service as found in Section 254 of the federal 1996 Telecommunications Act – principles that must remain at the forefront of the Commission's work on universal service.

APPENDIX I

OCA Reply Comments on Universal Service Support for Rural and Non-Rural Carriers

September 21, 2004

Dozens of parties filed responses to the NPRM in the initial comment period. In response to many of those comments, the Wyoming Office of Consumer Advocate hereby files its Reply Comments.

Should the Commission adopt permissive federal guidelines encouraging state commissions to consider additional minimum qualifications when evaluating ETC designations requests and should higher levels of scrutiny be required for ETC applications for rural areas?

The Joint Board recommends that the Commission adopt permissive federal guidelines for states to consider in proceedings to designate ETCs under section 214 of the Communications Act of 1934, as amended. The Joint Board notes that such permissive guidelines would: allow for more predictable application processing among states, would assist in determining whether the public interest test has been met[3], and would improve the long-term sustainability of the federal universal service fund.

The Wyoming OCA agrees that the ETC designation process should be rigorous to assure that only fully qualified applicants receive designation as ETCs. We further agree that a core set of minimum qualifications would allow for a more predictable and rigorous process and that only fully qualified carriers that are committed to providing universal service should receive federal universal service support.[4] As described in the Joint Board's Recommended Decision, those additional minimum qualifications should include: adequate financial resources, commitment and ability to provide the supported services, the ability to remain functional in emergencies, consumer protection, and local usage. We agree that each of these items is consistent with a determination that a service meets the goals and objectives of universal service as stated in Section 254 of the federal Telecommunications Act of 1996. We also agree with California that "inclusion of such factors as financial viability and technical capability is in the public interest in

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[3] Sprint argues at page 24 in its August 6, 2004 comments in this proceeding (as do several other commenters) that the "statute does not require a special 'public interest' finding for areas served by *non-rural* ILEC's separate and apart from the general finding that the applicant has satisfied the established ETC criteria." The Wyoming OCA disagrees. Section 102 of the federal Telecommunications Act of 1996 states, "Upon request *and consistent with the public interest, convenience and necessity,* the State commission may, in the case served by a rural telephone company, and shall, in the case of all other areas, designate more than one common carrier as an eligible telecommunications carrier . . ."

[4] Many ETC applicants appear to focus on gaining access to the universal service funds under the guise of leveling the competitive playing field with little or no mention of the impact that such access will have on customer service or customer rates. Often, there is no indication that customers will receive any benefit from the additional ETC designation, since the applicants indicate that their competitiveness does not depend on access to funds and there is no indication that end user rates or services will change once funds are provided to these carriers. Thus, making sure that ETC applicants meet the most stringent of tests, including public interest tests, is reasonable and necessary.

This position also appears to be supported by the Universal Service Administrative Company who states at page 6 in their August 6, 2004 comments in this proceeding, "Whatever the approach ultimately selected by the Commission, USAC urges the Commission to adopt clear rules, provide clear direction to USAC and carriers, and choose a process that is transparent, enforceable, and fully auditable."

that it ensures the ETC has the resources to serve all customers within its designated service area."[5]

In its Recommended Decision, the Joint Board raises the question of whether or not its recommendations regarding a more comprehensive review of ETC applications should be applied in such a way that state commissions might re-evaluate whether previously granted ETC status for a carrier remains appropriate or should be rescinded – specifically with an eye to whether the existing competitive ETC is serving the public interest. While the Wyoming OCA supports the future application of the more comprehensive review of ETC applications pursuant to permissive guidelines and admires those far-sighted state commissions who conducted comprehensive initial reviews of ETC applications in the absence of the proposed guidelines, we are concerned about the consequences of retroactive application of these guidelines. That is, we do not believe that each state commission should reopen each and every ETC application previously granted to test existing ETCs against the proposed guidelines.

However, it is the duty and responsibility of the state regulators (or the Commission where the state commissions lack the necessary authority) to monitor and oversee the service provide by the ETCs to ensure that they continue to meet their ongoing universal service obligations. When an ETC ceases providing each of the required elements of universal service, or otherwise fails to meet its obligations under Section 214, the regulator should be free to consider rescinding ETC status, and to conduct its inquiry using the previously established standards as well as the new guidelines. We believe state commissions could efficiently integrate this oversight of the carriers' compliance with universal service obligations with the annual certification process. While the annual certification requirement specifically requires scrutiny of the use of USF funds, it would be absurd for a state regulator to certify the use of the funds if an ETC were no longer providing the supported services or otherwise not meeting its universal service obligations. On this issue, we agree with the United States Telecom Association's[6] suggestion that decertification is appropriate if during the annual certification process it is found that ETC designation requirements are not being met.

Furthermore, we ask the Commission to clarify the process of decertification in cases where ETC status was originally granted by the Commission due to lack of state authority, and the state commission has since gained authority to conduct annual certifications which are routinely based on the self-serving, unverified statement of the carriers. The Wyoming OCA is concerned that in such cases, neither adequate oversight of the use of the funds nor compliance with ETC

[5] See the Comments of the People of the State of California and the Public Utilities Commission of the State of California in CC Docket No. 96-45, filed August 6, 2004, page 4.

[6] See Comments of the United States Telecom Association, filed August 6, 2004, in CC docket No. 96-45, page 15, "If a carrier cannot demonstrate compliance with the ETC designation requirements and the proper uses of their support, state regulatory agencies (or the Commission if it originally granted ETC status) should decertify any such carrier as an ETC, thereby removing the carrier's eligibility for federal universal service support."

requirements is adequately assured. We encourage the Commission to clarify the state commissions' options and eliminate this compliance enforceability gap.[7]

Should the high-cost support be limited to a single line connection and if so, how should such a limitation be administered?

The Joint Board recommends that the Commission limit the scope of high-cost support to a single connection that provides access to the public telephone network. The Joint Board, (though not unanimously) believes that supporting a single connection is more consistent with the goals of the federal Act than the present system, is necessary to preserve the sustainability of the fund, would send more appropriate entry signals in rural and high-cost areas, and would be competitively neutral. In addition, the Joint Board recommends that high-cost support in areas served by rural carries be capped on a per-line or per-connection basis where a competitive carrier is designated as an ETC, and adjusted annually by an index factor.

While the Wyoming OCA takes no position on whether support should be limited to a single line, we agree with the Joint Board that such a proposal would present difficult administrative challenges. If the Commission adopts the recommendation to limit support to a single line, it should very thoroughly and specifically establish the administrative process and rules by which the supported line is designated. These rules must be consistent from state-to-state, within each state, and within each ETC service area. Additionally, the designation process should be non-burdensome to customers and carriers. The process of limiting the size of the federal universal service fund should not create additional burdens for carriers, which would increase customer rates. We also agree with the observation found in nearly every initial comment filed in this matter, that there are numerous questions that need be addressed, including everything from defining the primary line to defining a household. The Commission must specifically address each and every one of these questions and not leave the process to work itself out or leave the answers to be developed independently by each state.

Because we believe the burden on customers should be minimized to the greatest extent possible, we take issue with the Joint Board's recommendation to have customers select one of their multiple lines to receive support. In our experience, many customers dislike making these kinds of choices. It imposes on their time and often induces significant stress related to the fear of making unfamiliar decisions with potentially negative economic consequences. Regarding similar choices for other utility matters, customers have repeatedly shared with us that they would prefer to leave such choices to the experts. Additionally, we would expect a flood of

[7] At the time that Western Wireless sought ETC designation, Wyoming did not have the authority to grant such a designation, and thus, the Commission ultimately issued the ETC designation. However, pursuant to the established processes, the Commission requires the Wyoming Public Service Commission to annually submit a certification that the funds are being used appropriately. Since the Wyoming Public Service Commission has taken the position that it does not have jurisdiction over wireless carriers, the certification is based solely on unverified statements from the carrier itself. Questions are now arising about Western Wireless' compliance with ETC requirements but it is not clear that the Wyoming Public Service Commission has the authority to decertify given the circumstances, nor is it clear that the Commission is periodically reviewing Western Wireless actual operations to see if its continuing ETC designation remains in the public interest.

dinnertime calls and piles of mailings from carriers urging customer to select them as the designated carrier to receive support. There is great potential for carriers engaged in this type of communication to exploit customers' fears of real or imagined dangers associated with the designation of their supported line, or to resort to unfair, deceptive and misleading practices as they compete for supported line designations.[8] Here, we again agree with the United States Telecom Association's statement at page 20 of their initial comments in this proceeding: "Adoption of a primary line plan is likely to result in massive customer confusion that will undoubtedly have a negative impact on the industry."

Many customers will not understand that if their wireless carrier is selected to receive the support in lieu of supported wireline service, their wireline service rates will likely increase without corresponding decreases in their wireless rates. In Wyoming, the state commission has the authority to require most carriers who receive federal universal service funds to either reduce their rates by the amount of federal universal service funds received, or to directly credit that amount to customers' bills. However, it is not clear that the Wyoming commission has such authority over wireless carriers. Therefore, customers designating their wireless service to receive support would lose their current bill credits and very possible find that the same bill credit requirement does not apply to their wireless carrier, who would be permitted to absorb all or part of the support associated with the service. This would result in a net increase in the total telecommunications expense to customers who chose their wireless provider as the carrier to receive support. The National Exchange Carrier Association, Inc., at page 17 of their August 6, 2004 comments, also raises this issue:

Finally, the potential for customer confusion should not be underestimated. Implementing the Joint Board's recommendation will require customers throughout the nation to make new and potentially confusing choices as to their "primary" carriers. Customers will be justifiably concerned as to the consequences of designating their "primary" connection, particularly if it is not clear how that designation will affect consumer rates. In cases where unexpected increases in rates will result from a change in "primary" carrier designation, consumer outrage will be the norm. The Commission must obviously make sure that potential rate impacts are fully understood prior to implementing a plan that can potentially have such widespread adverse consequences on consumers.

We agree.

The Joint Board's Recommended Decision rejects the argument that rates might rise for second lines, which are often used for access to information services such as dial-up Internet access or fax services. We agree that it is unlikely that second line rates will increase. *Rather, we are*

[8] Many Wyoming natural gas customers have recently been subjected to the process of having to choose a natural gas supplier as well as a pricing option for natural gas service. A significant number of customers indicated their dissatisfaction with the selection process and the requirement to select a supplier or have one randomly chosen for them through a default process. One of the many comments received was the fear that making the wrong choice would impact not only the size of their bill but also the quality and safety of their service. If this fear exists for a service that remains highly regulated, we can only imagine the fear tactics that could be used by unregulated telecommunications providers.

concerned that the price for the first line is likely to increase! The basis of this concern is that as many of the costing, pricing, and support-determination models are currently configured, the cost of trenching, laying cable, and other costs associated with the network investment of providing service are averaged over the total number of lines. Thus, the results of the models show no difference in the cost of the first, second, third, or tenth line to a customer location. So while it is true that laying the second line to a location may impose only a small incremental cost on the network, that fact is not currently reflected in the costing and pricing regimes used for most regulatory purposes.[9] To truly recognize the cost of providing universal service in one line to one location, all of those trenching costs, backhoe rentals, etc. should be associated with the cost – and the price – of the first line. This fundamental change would require re-evaluation of the continued affordability of universal service to all customers. It may also have a perverse impact on the stated goal of limiting the size of the federal fund.

We urge the Commission to carefully consider whether supporting only a single line is consistent with its other competitive policy and pricing goals. Since the passage of the Telecommunications Act of 1996, Wyoming has worked diligently, often against vigorous resistance from the public and industry, to make its telecommunications market competitor friendly. We have, with few exceptions, eliminated price differentials between business and residential service. This was done to eliminate implicit subsidies, so that remaining subsidies would be explicit and competitively neutral. Similarly, when establishing costs, as described above, the averaging concept is used in order to treat a line-as-a-line, whether it is the first or second line at a location. It is not clear how the Joint Board's recommendation would impact Wyoming's significant progress toward establishing an environment that might foster competition. What is clear is that the "a line is a line" concept would no longer be valid, and any incentive to be *competitive purists* in our implementation of pricing and costing policies may disappear.

Similarly, the Joint Board's recommendation to separately address the issue of support for multiple business lines in rural areas without the same support for multiple residential lines in rural areas simply invites gaming of pricing and costing in those areas. This too has the potential to *increase* the overall size of the federal universal service fund.

Should the Commission's rules be amended relative to required certifications and the filing of line-count data?

The Notice of Proposed Rulemaking also seeks comments on several administrative issues, including: (1) should newly designated ETCs begin receiving high-cost support as of their ETC date, provided certifications and line-counts are filed within sixty days of the ETC designation date and (2) what support ramifications should there be for the untimely certification filings of

[9] In initial comments of AT&T Corp, filed August 6, 2004 in this proceeding, at page 14, AT&T agrees that the first line incurs most of the cost of trenching and laying poles. However, it only comments on the cost of this activity and fails to mention that this is not consistent with the way that prices and support mechanisms are currently computed.

Interstate Access Support? The Joint Board suggested the need for comment on several miscellaneous matters, including: (1) how the customer location for mobile wireless customers should be defined, and (2) should USAC have the authority to develop standards for the submission of ETC maps, such that they are provided in a uniform, electronic format? The Wyoming OCA does not offer comments on each of these matters, but does offer some general thoughts on the administrative processes.

As to the requirements and processes ETCs are required to meet and follow, we believe that they should be strictly enforced and diligently monitored for compliance.[10] While all regulatory bodies, including the Commission, should periodically review their processes and filing requirements to determine whether they are still necessary and relevant, while in effect such standards should be strictly enforced. Otherwise, competitive fairness will likely erode. Furthermore, without some negative consequence related to non-compliance, the common corporate motto would become "better to ask forgiveness than permission." There is already a great deal of incentive to bend the rules when it comes to complying with ETC standards and requirements.[11] We fear that without stringent oversight of the process and clear guidance for all participants, competitors will flourish while competition flounders.[12] So, USAC should have the authority to implement nationwide standards that allow for reasonable monitoring and enforcement of the policies that have been established by the U.S. Congress and the Commission. Consistent mapping is one of those that are specifically identified by the Joint Board, but others may also exist. USAC should be encouraged to continually provide input to the Commission and the industry as to its needs in order to best administer the limited funds available.

Conclusion

As the process of reforming the federal USF support system continues, the Wyoming OCA asks that the Commission focus on the principles of the federal Telecommunications Act of 1996. While we agree that there are a number of inefficiencies in the current distribution of the fund, and the distribution should be more precisely targeted to those high cost and high priced areas of the nation, this does not translate into specific caps or fund size limitations. Limiting the size of the fund should not become the Commission's primary goal in this proceeding to such an extent

[10] With this statement, we agree with the comments of CenturyTel that "...it is insufficient to establish standards and public interest criteria without implementing a mechanism to enforce requirements and ensure accountability on an on-going basis." See comments of CenturyTel, Inc., filed August 6, 2004 in CC Docket No. 96-45, page 5.

[11] For example, the Wyoming OCA is extremely concerned about the attitude taken by Western Wireless when it comes to their universal service offering. While Western Wireless receives millions of dollars based on reported line counts in Wyoming, as of April 2004, not a single customer in Wyoming had taken the universal service offering described grandly in Western Wireless' ETC filing which was granted by the Commission based on a promise to offer rather than the existence of an offering. Furthermore, Western Wireless feels no need to advertise that particular service, stating that it only has to advertise any of its services in general to comply with the ETC standards. More guidance and monitoring of this situation would assist in making sure that the federal universal service funds are distributed in a wise and careful manner.

[12] This is consistent with CenturyTel's comments that "the purpose of this proceeding is not to stimulate competition." See Comments of CenturyTel, Inc., filed August 6, 2004, in CC Docket No. 96-45, page 3.

that the other important principles of the Act are ignored or overlooked. Rather, maintaining ubiquitous, affordable service with all customers having the ability to access both basic and advanced services, while preserving essentially equal footing for competitors must be the outcome in this reform proceeding. Finally, any reforms adopted should be clearly and comprehensively expressed, including all administrative and procedural aspects.

Respectfully submitted this 21st day of September 2004.

/s/ Bryce J. Freeman

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APPENDIX J

OCA Statement on Issues of High-Cost Service Support for Areas Served by Rural Carriers and Related Issues

November 17, 2004

Statement of Denise Parrish
on Behalf of the
National Association of State Utility Consumer Advocates

Regarding the Issues of High-Cost Service Support For Areas Served by Rural Carriers and Related Issues

November 17, 2004 En Banc Hearing Of The Federal-State Joint Board On Universal Service

Basic Principles

NASUCA very much appreciates the opportunity to provide input into the Joint Board's recommendation relative to high cost support funding for rural carriers. We agree that this review of the appropriate funding method is important and necessary. Yet, we urge the Joint Board to keep certain fundamental principles in mind as it undertakes the development of its recommendations. These principles, which are clearly spelled out in Section 254 of the Act, must not be lost in the discussions about today's market structures, new technologies, competitive by-pass, and growth rates. While each of those items has a place in the discussion, they are secondary to the fundamentals. These fundamental principles are beautifully simple in concept:

- affordability of basic communications services by all, including the economically disadvantaged;
- ubiquitous access to quality services throughout the nation;
- equitable and reasonably comparable treatment of urban and rural customers;
- a system of support that can be counted on to keep and better the high-quality and reliable telephone network that has been established throughout America; and
- a system of distributing support that neither advantages nor disadvantages emerging technologies or competitors in meeting basic communications needs.

The Joint Board need not select one of these principles at the expense of another. Rather, we believe the Joint Board can, and must, find a way to mesh each of these principles so that they become complimentary to one another. We hope our suggestions will assist the Joint Board in this formidable task.

NASUCA's Formal Comments

On October 15, 2004, NASCA filed formal comments in this matter. These comments encourage:

- the continued transition to economic costs by rural carriers that have 50,000 access lines or more through a five-year phase-in to a forward-looking cost basis of support;
- maintaining embedded costs, with checks and balances, as the basis of support for the smallest of the rural carriers;
- refinement of the definition of rural carrier including combining the entirety of the service area in a state for a carrier when determining its rural or non-rural status; and

- a leveling of the playing field such that CLECs receive support based on their own costs, rather than the costs of another carrier.

My comments are intended to be supplemental and complementary to those more formal and complete comments of NASUCA submitted in this matter.

What methodology should the Commission use to calculate the basis of support for eligible telecommunications carriers?

Does one size fit all?
Before determining the computational methods to be used in distributing support to ETCs, the Joint Board should consider whether *one size fits all* or whether there is justification to consider different support schemes for different sizes of carriers, different types of carriers, and carriers located in geographically diverse areas. We disagree with those who urge that one system can be made to fit all, whether the fit is natural or forced. However, in examining the general characteristics of carriers, including economies of scales, deployment costs, overheads, and other cost drivers, we conclude that three categories of carriers – and hence, three methods of computing support – are adequate and appropriate for today's market.

Non-rural carriers should continue to be provided support on the basis of the Commission's synthesis model that estimates forward-looking economic costs for each area of service throughout the nation. Rural carriers serving larger numbers of customers should be transitioned to a forward-looking cost method, but only if there is recognition that the model and support mechanism needs modification and updating Rural carriers serving a smaller number of customers should be allowed to remain on an embedded cost based system, with some safeguards put in place to makes sure that the sky is not the limit in terms of federal support.

Redefining Rural
When placing carriers into one of our three recommended categories, we suggest that the characteristics of what constitutes a rural or non-rural carrier be redefined. Holding companies having multiple operations in one state should not be permitted to maintain separate study areas endlessly to the point of maximizing support. Holding companies are able to take advantage of their purchasing power and effectuate economies of scale relative to certain administrative and operating costs, as well as relative to the cost of material. In light of this, we encourage the redefinition of rural such that all of the related and subsidiary operations of a company are consolidated when performing the line count to determine if it qualifies as a small rural carrier, a large rural carrier, or a non-rural carrier. A new category of rural carrier should be created for those providers with more than 50,000 customers in a state.

In encouraging the consolidation of the multiple but related operations within a state for the purposes of defining rural carriers, we are not suggesting that these larger carriers may not need support. Their cost of providing service may still be driven upward by low-density service areas or rocky terrain. But, it is these actual cost characteristics that should be recognized in the level

of support they are provided rather than maintenance of artificial study area designations in order to maximize federal support.

NASUCA urges an additional refinement to the definition of rural carrier, for USF purposes. As just described, we encourage that rural carriers be defined as either larger rural carriers (those who serve a total of 50,000 or more lines in a state) or smaller rural carriers (those who serve less than 50,000 lines in a state). But, when determining whether a carrier is rural at all, the current definition should be narrowed. In looking at the current definition at Section 153(37) of the Act, a carrier is defined as rural if any one of several events listed occurs. For example, a carrier can have less than 15% of its access lines in communities of more than 50,000 on February 8, 1996 and be defined as rural, even though it may have several million total lines! To rectify this situation, NASUCA is recommending that Section 153(37) (B), (C), and (D) all apply for a carrier to be classified as rural. By making this change, there would be assurance that the territory served is rural and the carriers are smaller in total size. Once a carrier is defined as rural, it is then categorized as either a larger or a smaller rural carrier.

By redefining the characteristics of a rural carrier, the Joint Board, and ultimately the Commission, can better target the fund to those carriers with the highest need for support. Forward-looking cost models have currently proven to be the most problematic when attempting to measure the costs, customer locations and efficiencies of the most rural and smallest providers. By beginning additional transitions away from embedded-based support with the larger rural carriers, any problems that do exist will be minimized. Furthermore, the costs of these larger rural carriers are more similar to those already being measured in the model for non-rural carriers than they are to the costs of the smaller, more high-cost, less dense rural carriers. Also, the costs of this larger rural carriers group appears to be more homogenous than are the costs of the smallest carriers.

The use of such a model to calculate the level of support to the carrier then blends the principles of providing support where it is needed (affordability) and minimization of the fund (sustainability). The model furthers the provision of quality services by using inputs based on modern technologies that allow for services that meet today's customers' expectations. Finally, the model would be technologically and competitively neutral since the model would reflect a reasonably efficient level of operations. This efficiency could then be achieved through the deployment of any one of multiple technologies. Assuming a proper measurement of the efficiencies and costs of today's carriers by the model, support should be predictable and sufficient.

Reexamining and Updating the Model Inputs

One key aspect of NASUCA's recommendation is that the model's inputs must be reexamined, revised, and updated during the five-year period we propose for transitioning larger rural carriers from an embedded cost system to a forward-looking cost system. We recommend that the current Commission synthesis model become the starting point for the development of a model for measuring appropriate distributions to the larger rural incumbent ETCs. We acknowledge and share the concerns of several of the Joint Board members that the model – as it stands today

– does not work for either large or small rural carriers. However, we are hopeful that with an update and reexamination of the customer locations, model assumptions on operating costs, and model assumptions on per unit investments, the results will provide the efficiency incentives that are intended while also providing sufficient support levels. NASUCA's support for a transition to forward-looking costs is dependent upon the re-look at the model inputs and assumptions. Without this provision, we too would continue to have serious doubts about the appropriateness of its use for any rural company – whether large or small.

Statewide Average versus Individual Carrier Costs

We also recommend a change in the granularity of the model outputs and the use of those outputs for making support distributions. Rather than expanding the current method of benchmarking against statewide average costs, we recommend that the forward-looking costs determined by the model for each carrier (based upon inputs representing individual carriers characteristics) be measured against a benchmark. If a carrier has more than one service territory in a state, those service areas would be combined for the purpose of determining distributions, but the costs for one carrier would not be combined with those of another provider when determining its share of high-cost support.

As to the benchmark against which an individual carriers' model output costs are to be applied, NASUCA has not yet made a recommendation. However, we do suggest that the Joint Board carefully examine whether the current benchmark for non-rural providers should also be applied to the rural carriers. Some updated model runs, some average pricing information, and an examination of total rural customer bills (including more long distance than that used by most urban customers) would be useful as the Joint Board develops its recommendation on the appropriate benchmark for rural customers. Many continue to be concerned that the current benchmark for urban companies does not comply with the reasonable comparability test, and if this is true, we suspect that the reasonably comparable test would be even more compromised if the same benchmark were applied to rural companies. This is an area that needs more data and more discussion.

Small Carriers' Embedded Cost Support

NASUCA proposes that companies with fewer than 50,000 access lines remain under a support mechanism based on embedded costs for now. We also propose that further study should be done looking toward the ultimate transition of all companies to a forward-looking cost model. However, the transition of the smallest rural carriers from embedded-cost based support should only occur once re-examination and re-testing of the model with rural inputs and reasonable geographic customer data has been used in the forward-looking cost model. We must be assured that the support coming from such a transition will be sufficient to keep end user rates affordable and that the quality of service will not suffer. We must not become a nation of haves and have-nots for the sake of economic theory.

On the other hand, we agree that the current embedded system may offer opportunities for smaller companies to abuse the system through the use of gold-plating networks or the lack of cost controls. Hence, we suggest that some there be some control placed on the level of

overheads and administrative costs that are included in the computation of high-cost support. One method of doing this is by arriving at a *best-practices benchmark*. This benchmark could then become a safe-harbor where, for example, if a company's overheads were within a designated range, they would be deemed reasonable for inclusion in the support calculation. (The Joint Board should further examine the reasonable basis for such a benchmark, whether it be on a per customer basis, a dollar of revenue basis, a dollar of investment basis, or some combination thereof.) However, we are reluctant to endorse a system where all costs above such a benchmark are deemed to be unreasonable without even an opportunity for further explanation or support.

Should a competitor receive support based on the incumbent carrier's costs or its own costs?

Cost-Based Support for CETCs

NASUCA recommends that a CLEC receive support based on its own costs rather than based on the incumbent carrier's costs. Additionally, the CETC should only receive support if its costs are high enough to exceed the established benchmark such that support is necessary for it to continue to provide service in the rural market. It should not be entitled to receive high-cost support simply because another carrier receives such support. Experience has shown that support is not necessarily required to stimulate new investment in a rural market by a CETC, and thus, the support is simply a bonus revenue stream that is funded with customer money. Build-out often occurs, especially in rural cellular markets, without any assurance that ETC status will be granted. If ETC status is granted, shareholders benefit but customers rarely, if ever, see a change in that competitive provider's price. Continuing to provide money to CETC's who show no need for the funds fails the test of providing a sustainable fund. It also fails the test of maintaining affordable rates for all customers as customers are required to pay more and more to support a fund that is growing unnecessarily.

Some may argue that requiring CETC's to provide cost data in order to receive public support is a move toward heavy-handed regulation and away from free-market economics. We disagree. The NASUCA proposal relative to fund distributions *would not require* a competitive carrier to provide any cost data to regulators and would not require any regulatory approvals *unless* it was asking for money that is coming from a publicly administered pool of money funded by all customers – not just its own. If a company is to receive high-cost funds, it should be willing to show it has a need for the money and that providing such funds is not in violation of the public interest. If it chooses not to share such information, it should fund its operations from shareholder money and revenues from its own customers.

We recommend one other computational limitation on the support provided to CETCs. Support must be capped at the incumbent carrier's level of support in order to ensure a sustainable high-cost program and mitigate the risk of uneconomic support for very high-cost competitive carriers. ILECs continue to serve as the only reliable carrier of last resort. If a competitive provider is unable to offer services at a cost equal to or less than the costs incurred by the incumbent provider, it is not in the public interest to support that provider's higher costs. Competition is not served by allowing inefficient competitive providers to remain in an area at

the expense of the American public. Competitive providers should not receive support that exceeds the per line support provided to the incumbent carrier.

The universal service fund should not be used to advance or promote competitive carriers market entry. It should be competitively neutral which means that it should neither advantage nor disadvantage any carrier serving the market. Providing an incentive for the inefficient carrier to enter the market is not competitively neutral but instead advantages the CETC. This practice should stop.

What level of support should be provided to carriers who acquire exchanges from an unaffiliated carrier?

NASUCA did not take a position on this question in its October 15, 2004 comments. However, several principles stated in response to other aspects of the Joint Board's questions are also applicable in response to the issue of support for acquired exchanges. Carriers should not be provided an incentive to purchase exchanges just to increase their profit levels at the expense of the high-cost fund. But, if exchanges purchased are deemed to be in the public interest (in that quality of service will improve, affordability and accessibility of services will increase, or other fundamental public interest standards are met) then they should receive similar treatment as existing exchanges. Administrative cost safeguards would be applied. Consolidation of study areas within a state would occur for purposes of computing high-cost support. Rates and services should continue to be subject to the reasonably comparable test.

Again, NASUCA is appreciative of the opportunity to provide input into this proceeding. We look forward to answering any questions you may have about our recommendations at the en banc hearing.

Appendix K

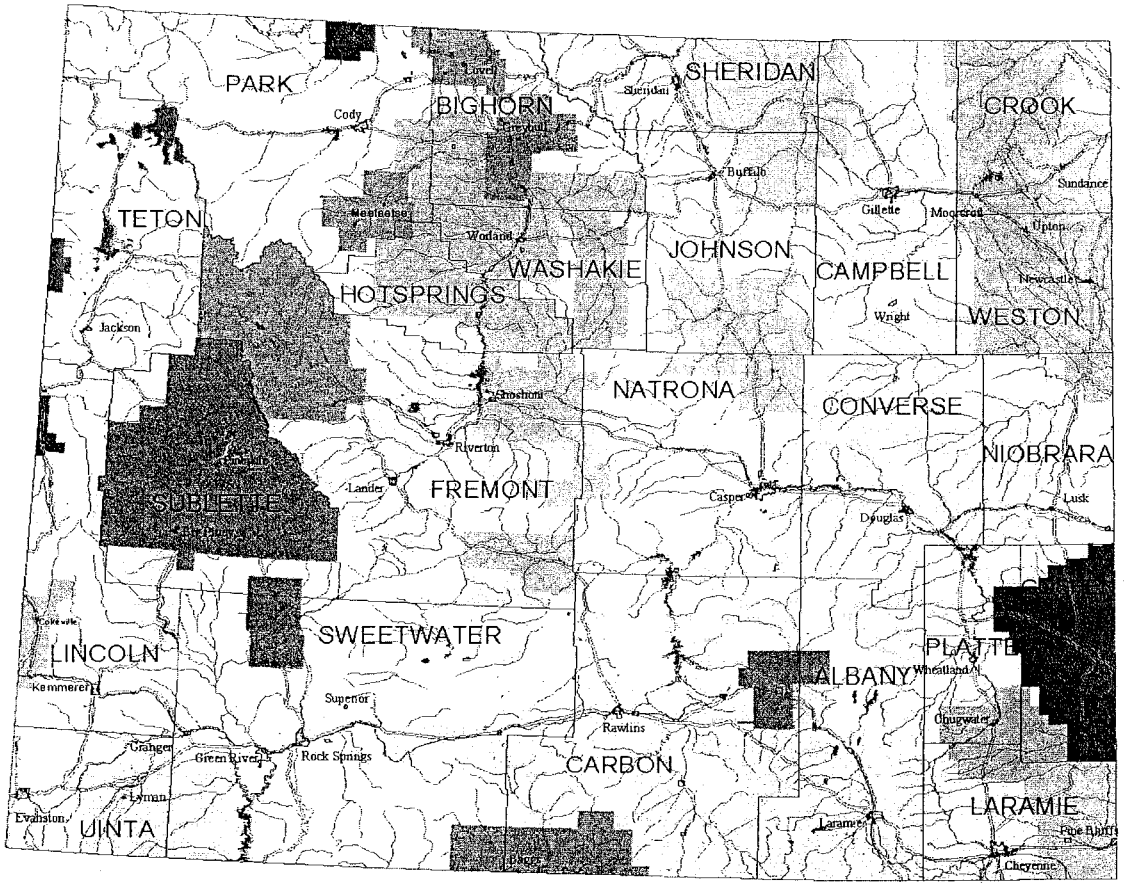
Color GIS Map of Wyoming Incumbent Telephone Company Certificated Areas

See Full Color Map on Next Page

WYOMING PUBLIC SERVICE COMMISSION

Wyoming
Telephone Utilities
Certificated Areas

Printed January 10, 2005
Note: Items are not 100% accurate



- County
- Town
- Railroad
- Highway
- River
- Lakes
- All West Communications
- Century Telephone
- Chugwater Telephone
- Dubois Telephone Exchange
- Golden West Telephone
- Project Telephone
- Range Telephone
- RT Communications
- Silver Star Telephone
- TCT West
- Teton Telecom
- Tri-County Telephone
- Union Telephone Co.
- Sprint - United Telephone Co. of the West
- Qwest Communications
- Qwest Communications
- Qwest Communications

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Subject	Households	Families			Nonfamily households
		Total	Married-couple families	Female householder, no husband present	
NUMBER					
Total	**6,341,121**	**4,238,409**	**3,242,027**	**739,159**	**2,102,712**
Less than $10,000	606,995	243,787	94,603	125,499	390,446
$10,000 to $14,999	427,050	195,528	95,733	81,379	247,440
$15,000 to $19,999	442,980	243,855	138,440	82,006	214,256
$20,000 to $24,999	475,475	280,154	176,352	77,963	206,375
$25,000 to $29,999	460,353	289,511	196,153	67,583	177,432
$30,000 to $34,999	441,101	290,003	209,018	57,671	152,214
$35,000 to $39,999	400,470	275,917	208,448	48,390	121,313
$40,000 to $44,999	379,192	268,173	210,563	40,327	105,609
$45,000 to $49,999	323,892	238,828	194,276	31,131	78,703
$50,000 to $59,999	564,222	427,901	361,843	45,059	123,509
$60,000 to $74,999	606,347	479,487	423,619	36,996	109,642
$75,000 to $99,999	552,379	452,986	412,552	26,048	82,563
$100,000 to $124,999	271,522	225,543	210,860	8,945	38,614
$125,000 to $149,999	127,338	107,192	101,269	3,897	16,664
$150,000 to $199,999	114,432	96,551	91,649	2,756	15,307
$200,000 or more	147,373	122,993	116,649	3,509	22,625
Median income (dollars)	**38,819**	45,625	52,202	25,185	24,799
Mean income (dollars)	53,504	61,238	69,358	32,351	35,392
PERCENT DISTRIBUTION					
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than $10,000	9.6	5.8	2.9	17.0	18.6
$10,000 to $14,999	6.7	4.6	3.0	11.0	11.8
$15,000 to $19,999	7.0	5.8	4.3	11.1	10.2
$20,000 to $24,999	7.5	6.6	5.4	10.5	9.8
$25,000 to $29,999	7.3	6.8	6.1	9.1	8.4
$30,000 to $34,999	7.0	6.8	6.4	7.8	7.2
$35,000 to $39,999	6.3	6.5	6.4	6.5	5.8
$40,000 to $44,999	6.0	6.3	6.5	5.5	5.0
$45,000 to $49,999	5.1	5.6	6.0	4.2	3.7
$50,000 to $59,999	8.9	10.1	11.2	6.1	5.9
$60,000 to $74,999	9.6	11.3	13.1	5.0	5.2
$75,000 to $99,999	8.7	10.7	12.7	3.5	3.9
$100,000 to $124,999	4.3	5.3	6.5	1.2	1.8
$125,000 to $149,999	2.0	2.5	3.1	0.5	0.8
$150,000 to $199,999	1.8	2.3	2.8	0.4	0.7
$200,000 or more	2.3	2.9	3.6	0.5	1.1

Subject	Households	Families			Nonfamily households
		Total	Married-couple families	Female householder, no husband present	

(X) Not applicable.

Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrices P52, P53, P54, P79, P80, P81, PCT38,

Subject	Households	Families			Nonfamily households
		Total	Married-couple families	Female householder, no husband present	

PCT40, and PCT41.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-21)
Bresnen Communications

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
_____	)

Exhibit DCB-21

Bresnan Communications home page @ http://bresnan.com.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 29
Company/ Alltel
Witness: David C. Blessing (DCB-21)
Date: 12-01-05

About Bresnan

History: United States

With the initial purchase of five cable systems in 1984, Bresnan began to dramatically alter the telecommunications landscape on the Upper Peninsula of Michigan. The company grew quickly, making additional acquisitions in Michigan, Minnesota, Wisconsin, Mississippi and Georgia. After upgrading many of those systems, Bresnan introduced high-speed Internet access on the Upper Peninsula of Michigan in the summer of 1997, making its customers among the first in the country to experience this new technology.

In 1998, Bresnan decided to consolidate operations in the Midwest, with plans to create the economies of scale necessary to offer advanced programming and data networking services. The company accomplished this by selling its Southeast operations and acquiring other strategically clustered systems in small and medium-sized communities throughout the Midwest. Ultimately, the interconnection of its systems facilitated the exchange of voice, video, and data traffic among businesses and institutions in the area.

Bresnan's multi-million dollar commitment to education has deepened throughout the years alongside the evolution of broadband technology. Pioneers in the development and construction of interactive television networks for distance learning, by 1999 the company had already completed 19 full-service data networks connecting almost 200 educational sites.

In February 2000, Bresnan completed the sale of all of its U.S. operations to Charter Communications, now the fourth largest cable operator in the United States. In March 2003, Bresnan reentered the cable market with the acquisition of about 314,000 customers in Colorado, Montana, Wyoming and Utah.

Overview | Chile | Poland

BRESNAN Communications

What's available in my area? Enter your ZIP Code:

HOME | PRODUCTS AND SERVICES | CUSTOMER SUPPORT | MY ACCOUNT | FOR BUSINESS | ABOUT BRESNAN | PARENTAL CONTROLS

About Bresnan

Overview

Bresnan Communications is a broadband telecommunications provider founded in 1984 with the goal of providing leading-edge technology, entertainment and advanced services supported by outstanding customer service to small and medium-sized markets. The nation's thirteenth largest MSO, Bresnan currently serves over 300,000 customers in Colorado, Montana, Wyoming, and Utah. We have also operated abroad in Chile and Poland, at one point serving more than a million customers worldwide.

Today, Bresnan delivers advanced products and services such as high-speed Internet access, high-definition television, video-on-demand, digital video recorder, and telephone to residential and business customers across an upgraded fiber-optic coaxial network that reaches across 95% of its footprint. Bresnan Business Services, the company's commercial sales division, recently has passed its 1000th customer marker, delivering custom data, voice, and video solutions to businesses and institutions of all sizes.

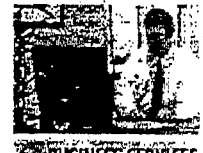
William J. Bresnan, founder and Chief Executive Officer of Bresnan Communications, and a cable industry pioneer with more than 40 years experience in the industry, is widely acknowledged as one of the leading supporters of technological advancement in the field. An inductee into the Cable Television Hall of Fame and the Broadcasting and Cable Hall of Fame, he is the recipient of numerous awards and honors including the Walter Kaitz Foundation's prestigious Partnership in Diversity Award honoring him for his "leadership, generosity, talent and integrity."

Bresnan's executive team possesses a demonstrated wealth of experience in finance, engineering, and development and operations of broadband systems. Over the years, it has gained vast experience in utilizing various telecommunications technologies including advanced fiber optics, traditional coaxial cable, twisted-pair copper telephone wire, and wireless services.

DIGITAL CABLE

HIGH-SPEED INTERN

DIGITAL PHONE



BUSINESS SERVICES

BRESNAN
Communications

What's available in my area? Enter your ZIP Code:

HOME | PRODUCTS AND SERVICES | CUSTOMER SUPPORT | MY ACCOUNT | FOR BUSINESS | ABOUT BRESNAN | PARENTAL CONTROLS

DIGITAL CABLE

Great TV at a tremendous value!

Bresnan Digital Cable brings you incredible choice with 39 additional networks – Discovery Health, ESPN Classic, Biography, National Geographic, Toon Disney, Golf Channel, plus movie channels, digital music and more.

High-Definition TV and other options available – it sure beats satellite!

>Learn more...

HIGH-SPEED INTERNET

Bresnan OnLine is now faster than ever!

With download speeds up to 3.0 Mbps*, it's twice as fast as 1.5 Mbps DSL. Download huge files, intense graphics and music in a fraction of the time - plus get Bresnan OnLine Security Manager at no additional charge!

Cable-powered so you're always connected.

>Order now!
>Learn more...

DIGITAL PHONE

Unlimited local and long distance calling - all for one low rate!

With Bresnan Digital Phone you can with anyone, anytime, anywhere in th country, the U.S. Virgin Islands and Canada for one low monthly rate!

Take a look at how Bresnan Digital Phone can work for you!

>Learn m

BRESNAN
Communications

What's available in my area? Enter your ZIP Code:

HOME | PRODUCTS AND SERVICES | CUSTOMER SUPPORT | MY ACCOUNT | FOR BUSINESS | ABOUT BRESNAN | PARENTAL CONTROLS

Bresnan Digital Phone

The Smart Choice

With Bresnan Digital Phone you can talk with anyone, anytime, anywhere in the country plus Canada – all for one low rate!

Talk about savings!
Monthly savings over your current phone provider! One low monthly rate includes unlimited local and long distance service within the continental U.S., the U.S. Virgin Islands, Alaska, Hawaii, and Canada. And check out our great international rates!

Unlimited Local and Long Distance Calling!

$39.99 a month

Free Installation / Free Activation

Talk about ease!
- Keep your same number and existing phone.
- No new equipment to buy, one call to Bresnan does it all.
- View your statement and call activity, pay your bill, manage your phone features and even get your voice mail messages — all online. You'll have access to your account information anytime, anywhere with My Phone Account. It's free, convenient and secure.

Talk about a guarantee!
We're so confident you'll love your Bresnan Digital Phone service that we'll give you your money back if you're not completely satisfied and we'll pay for you to be reconnected to your original provider!

Talk about features!
You'll get 13 great time-saving features:
- Call waiting, so you never miss that important call.
- Call forwarding, so you can stay in touch while you're away.
- Caller ID - only take the calls you want to take.
- And more!

Refer to our features quick reference for instructions.

BRESNAN Communications

What's available in my area? Enter your ZIP Code:

PRODUCTS AND SERVICES | CUSTOMER SUPPORT | MY ACCOUNT | FOR BUSINESS | ABOUT BRESNAN | PARENTAL CONTROLS

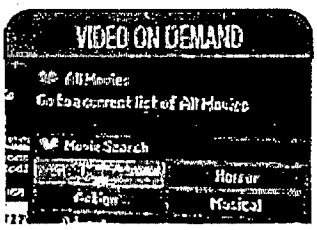
Bresnan Digital Cable

Better Television, Better Value

Channels and features satellite can't deliver – only Bresnan can! Check out these **Bresnan Digital Cable packages** for the lineup that's right for you. Get great television at a great value!

Digital Cable packages include:

- All local channels
- Standard Cable channels
- Up to 40 special interest channels only on Bresnan Digital Cable!
- Multiple screens of the best movie channels – HBO, Showtime, Cinemax, The Movie Channel, Encore and STARZ!
- More pay-per-view options
- Up to 46 CD-quality digital music channels on Music Choice!
- On-screen Interactive Program Guide NEW!
- Parental controls to screen out unwanted programs



Hit movies, top shows whenever you want them. Start, pause, rewind, fast-forward - no video stores!

Crystal-clear pictures in a wide-screen format. You won't believe your eyes!

Totally cool! Pause live TV, fast-forward or rewind your favorite shows to replay them, record anytime.

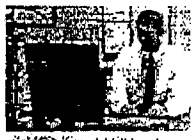
When combining Bresnan Digital Cable and Bresnan OnLine High-Speed Internet, please refer to our combo package rates for the best price!

Service subject to the terms of the Bresnan Digital Cable Subscriber Agreement.


DIGITAL CABLE


HIGH-SPEED INTERN


DIGITAL PHONE


BUSINESS SERVICES

Get bot and sav

THE TRUTH about satell

SPECIAL OFFERS

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-22)
Contact Communications

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-22

Contact Communication's home page @ http://www.contactcom.net/default.htm.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TI Exhibit No. 30
Company/ Alltel
Witness: David C. Blessing (DCB-22)
Date: 12-01-05

CONTACT COMMUNICATIONS

Contact Communications is a Competitive Local Exchange Carrier (CLEC) that grew out of Wyoming's largest privately held Internet Service Provider (ISP). Intent on providing next-generation data telecom services to ISPs. Contact received Certification to serve the US West (now Qwest) territory in April 1997, as a wholesale data exchange carrier. The Company is expanding into additional services for Internet Providers and a variety of traditional telecommunications services using state-of-the-art protocols and expandable hardware designs. Presently operating in Wyoming, Contact is certified in 8 other states including Montana, Idaho, Utah, North Dakota, South Dakota, Nebraska, Colorado and Hawaii.

Our mission is to enable ISPs to rapidly and economically design and deploy next-generation communications services to their customers by providing and alternative to excessive rates and poor quality of local telecom services currently available to ISPs. Contact frees ISPs from the hassles of building and maintaining their Internet network. Contact's focus is to deliver customer-driven communications solutions uniquely tailored to individual business requirements. Our ability to translate business communications obstacles into business communications opportunities, combined with our commitment to be proactive and responsive service to our customers is what sets us apart from the crowd. Contact places the business back in the hands of the ISP.

Although several companies are working with Internet Service Providers to offer them wholesale modem ports and wholesale DSL, virtually all of these firms are taking the path of greatest volume at least cost. This has led them to the larger cities and the larger providers. Even those that are targeting the smaller cities are looking to simplify their marketing by associating with the larger Internet providers. Contact, however, focuses on delivering reasonable costs for broadband without crippling volume commitments, allowing ISPs serving rural markets similar efficiencies as ISPs serving metro markets. Our intent is to compete with the incumbent telephone companies so that ISPs serving rural markets are able to offer advanced services with reasonable margins.

Diversity is a necessity in this changing market and is one of our greatest assets. At Contact we are on the cutting edge in developing new services for the ISP market. Today, the entire telephone industry faces challenges and opportunities virtually unimaginable just a decade ago.
Contact Communications has positioned itself as the preeminent wholesaler of service to Internet Providers in the Mountain State Region. Contact gives ISPs the freedom to build their business.

Acceptable Use Policy

937 West Main • Riverton, WY 82501
1-800-996-4638 • 1-307-856-0980
Fax 1-307-856-1499

Internet Call Diversion (ICD)	*Contact empowers ISPs to control and manage their operations by providing web-based network reports and provisioning tools.* ***MORE ▶***
Egress Backbone Transport	*Contact works very closely with our ISP Partners to monitor Egress Backbone Transport utilization to ensure adequate capacity exists between Contact and the ISP to sufficiently handle traffic.* ***MORE ▶***
Internet Backbone Bandwidth	*With Internet Backbone Bandwidth from Contact, our ISP Partners are able to take advantage of the economies of scale gained by outsourcing your ICD and Internet traffic termination.* ***MORE ▶***
Virtual ISP	*Contact's Virtual ISP services allows our ISP Partners to focus on Sales and Marketing of their products while Contact delivers a complete turnkey solution to deliver high-quality ISP services to the ISP customer base.* ***MORE ▶***
Service Areas	Service Areas *See Map*

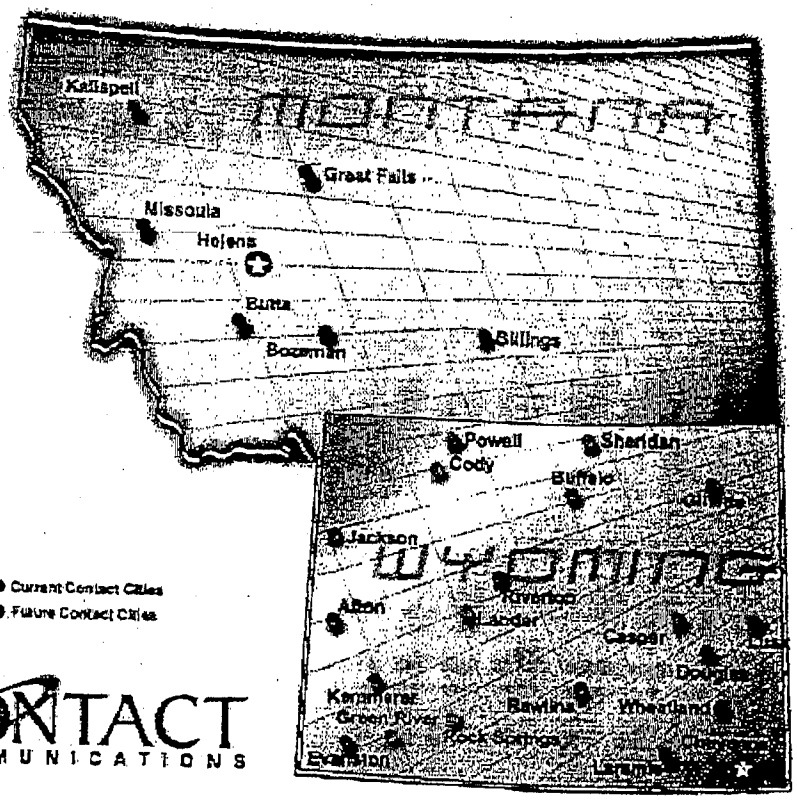
937 West Main • Riverton, WY 82501
1-800-996-4638 • 1-307-856-0980
Fax 1-307-856-1499

PRODUCTS & SERVICES

CONTACT COMMUNICATIONS

Products & Services | Who We Are
Contact Us | Opportunities
Home | Partners & Affiliates
E-Mail

▶ Internet Call Diversion ▶ Egress Backbone Transport ▶ Internet Backbone Bandwidth ▶ Virtual ISP ▶ Service Areas



CONTACT COMMUNICATIONS

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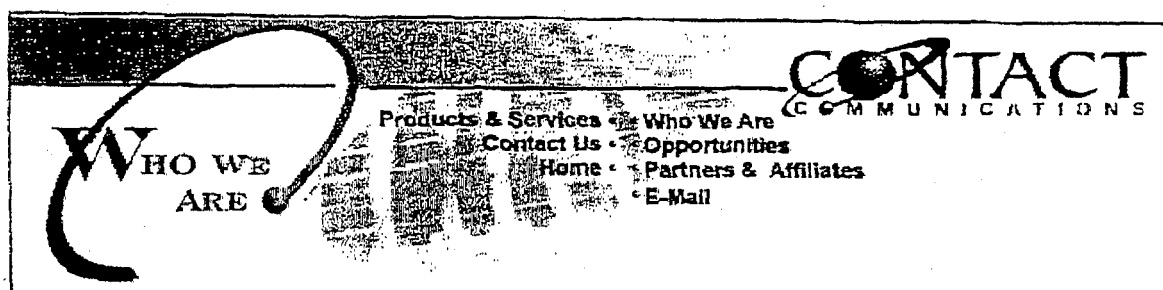
Contact Us | Opportunities
Who We Are



Management Team

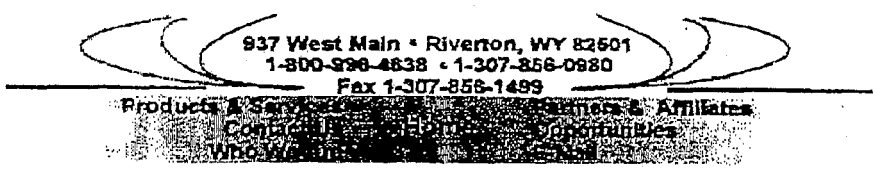
Steve Mossbrook, President - Steve is the founder and CEO of Contact Communications. He provides the leadership and strategic vision of the company focuses on marketing and financial management.

Frostie Sprout, Vice President of Technology - Frostie leads our team in decisions regarding the deployment of technology based services. He concentrates on hardware and software evaluation, testing and prototype deployment.

Rich Hardt, Vice President - Rich brings over 25 years of experience in designing voice, video and data systems for clients such as Ted Turners's Turner Broadcasting Network and for educational clients both in the United States and international markets. He designed the nation's first K-12 school buildings to utilize a fiber optic infrastructure for voice, video and data while serving as director of the AT&T/Penn-Harris-Madison "Schools of the Future Project".

Howard Bastedo, Director of Network Operations - Howard has over 15 years experience as a senior executive with a wide range of start-up and world-class telecoms/ISPs. He has been directly involved in the formation of corporate vision and strategy, the management of rapid growth, the implementation of cutting-edge technology, and the direction of daily operations.

Jack Berridge, Director of Sales - Jack has 16 years of extensive background in telecommunications and network infrastructure. With direct experience as a Network Design Engineer for voice and data and management of Network Administration and Operations groups primarily focusing on data communication provisioning as well as point-of-presence facility acquisition and build-out. Jack has also built an entire Network Operations Center (NOC) and Technical Assistance Center (TAC) for a startup company. Jack is a Certified Help Desk Manager and holds his Cisco CCNA certification as well as SonicWall CSSA certification.



Dkt. No _____
D. Blessing Ex. No. ___ (DCB-23)
Rates, Prices, Expenditures

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-23

FCC *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service,* Table 1.1 July 2005.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 31
Company/ Alltel
Witness: David C. Blessing (DCB-23)
Date: 12-01-05

NEWS

Federal Communications Commission
445 12th Street, S.W.
Washington, D. C. 20554

News Media Information 202 / 418-0500
Internet: http://www.fcc.gov
TTY: 1-888-835-5322

FOR IMMEDIATE RELEASE
May 25, 2005

NEWS MEDIA CONTACT:
Mark Wigfield at (202) 418-0259
E-mail: mark.wigfield@fcc.gov

FCC Releases *Reference Book*

Washington, D.C. – Today, the Federal Communications Commission (FCC) released its annual report, *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service*. The report contains information on local and long distance rates paid by residential and business consumers, household expenditures, and price indices. Highlights include the following:

Toll Service Rates

- During 2004, the consumer price index for interstate toll service fell 8.7% and the consumer price index for intrastate toll service fell 6.6%, while the overall consumer price index rose 3.3%.

- The average revenue per minute of long distance calling, which reflects rates paid by residential and business consumers, has fallen from 15 cents in 1992, when discount and promotional long distance plans were introduced, to 7 cents in 2003, a decrease of 53%.

Rates for Local Service

- The average rate paid by residential customers for unlimited touch-tone calling was $24.31 in 2004, compared to $24.52 in 2003, a decrease of 0.9%. Connection charges for residential customers rose from $42.54 to $42.59 during the same period, an increase of 0.1%.

- The Lifeline universal service program subsidizes the monthly phone charges for low-income households, while the Link-Up program subsidizes charges for the connection of a phone line. Based on a sample of cities, Lifeline conferred an average monthly benefit of $13.82, and Link-Up conferred an average benefit of $28.51.

- The average rate paid by business customers for a single phone line was $43.75 in 2004, compared to $41.96 in 2003, an increase of 4.3%. Connection charges for single-line business customers fell from $74.18 in 2003 to $74.17 in 2004, a decrease of 0.01%.

Consumer Expenditures for Telephone Service

- According to Bureau of Labor Statistics (BLS) surveys, telephone service continues to comprise approximately 2% of household expenditures. Monthly expenditures for telephone service by households with telephone service fell from $79.75 in 2002 to $79.67 in 2003, a decrease of 0.1%.

- Also, according to BLS surveys, urban households continue to spend more on telephone service than rural households. During 2003, annual expenditures for urban households were $967, as compared to $875 for rural households.

- According to data for the year 2003 provided by TNS Telecoms, households annually spent $441 on local service (compared to $436 in 2002), $122 on long distance service (compared to $149 in 2002), and $492 on wireless service (compared to $417 in 2002), for a total annual expenditure of $1,055 on telephone services (compared to $1,001 in 2002).

This report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, S.W., Washington, DC 20554. Copies may be purchased by calling Best Copy and Printing, Inc., Portals II, 445 12th Street S.W., Room CY-B402, Washington, DC 20554, (202) 488-5300, or by e-mail at fcc@bcpiweb.com. The report can be downloaded from the **FCC-State Link** Internet site at www.fcc.gov/wcb/stats.

-- FCC --

For further information, contact Paul Zimmerman of the Industry Analysis and Technology Division, Wireline Competition Bureau, at (202) 418-0940, or for users of TTY equipment, call 202-418-0484.

REFERENCE BOOK
of Rates, Price Indices, and Household Expenditures for Telephone Service

Paul R. Zimmerman

Industry Analysis & Technology Division
Wireline Competition Bureau
2005

This report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street S.W., Washington, D.C. 20554. Copies may be purchased by calling Best Copy and Printing, Inc., Portals II, 445 12th Street S.W., Room CY-B402, Washington, D.C. 20554, telephone 202-488-5300, or via e-mail at fcc@bcpiweb.com. The report can also be downloaded from the **FCC-State Link** Internet site www.fcc.gov/wcb/stats.

Table of Contents

Introduction

This 2005 issue of the *Reference Book* highlights the data collected through the Industry Analysis and Technology Division's annual *Urban Rates Survey*. The local rate data compiled for 2003 and 2004 reflect the inclusion of various taxes and surcharges and, as such, provide an estimate of the monthly charges residential and single-line business customers pay for local telephone service provided by wireline telephone companies. Local rates pertaining to multiline-business customers are no longer reported. Like the previous edition of the *Reference Book* (2004), this issue primarily focuses on trends in rates, price indices, and expenditures for telephone service. As before, each chapter has a section following the text which informs the reader about the various additional data sources that contain further information on these topics. This report, and previous reports, are also available on the **FCC-State Link** at www.fcc.gov/wcb/stats.

This publication focuses on domestic telecommunications. Those interested in international telecommunications are encouraged to refer to *Trends in the International Telecommunications Industry*, which is also available on the **FCC-State Link** Internet site.

Statistical Findings

Rates for Local Service

- The average rate paid by residential customers for unlimited touch-tone calling fell to $24.31 in 2004, a decrease of 0.9% from $24.52 in 2003. Connection charges for residential customers rose from $42.54 to $42.59 during the same period, an increase of 0.1%.

- Lifeline subsidizes the monthly phone charges for low-income households, while LinkUp subsidizes charges for the connection of a phone line. Based on a sample of cities, Lifeline conferred an average monthly benefit of $13.82, and Link-Up conferred an average benefit of $28.51.

- The average rate paid by business customers for a single phone line rose from $41.96 in 2003 to $43.75 in 2004, an increase of 4.3%. Connection charges for single-line business customers fell from $74.18 in 2003 to $74.17 in 2004, a decrease of 0.01%.

Toll Service Rates

- The increased availability and marketing of discount and promotional long distance plans, as well as the popularity of wireless "bucket-of-minutes" plans, has made basic schedule rates obsolete for many long distance customers, particularly business customers and high volume residential consumers. Today wireline, wireless, and cable companies are offering consumers bundled packages of local and long distance service, and buckets of minutes that can be used to call anyone, anywhere, and anytime.

- The average revenue per minute of long distance calling, which reflects rates paid by residential and business consumers, has fallen from 15 cents in 1992, when discount and promotional long distance plans were introduced, to 7 cents in 2003, a decrease of 53%.

- During 2004, the consumer price index for interstate toll service fell 8.7% and the consumer price index for intrastate toll service fell 6.6%, while the overall consumer price index rose 3.3%.

Consumer Expenditures for Telephone Service

- According to Bureau of Labor Statistics (BLS) surveys, monthly expenditures for telephone service by households with telephone service fell from $79.75 in 2002 to $79.67 in 2003, a decrease of 0.1%. Telephone service continues to comprise approximately 2% of household expenditures.

- Also, according to BLS surveys, urban households continue to spend more on telephone service than rural households. During 2003, annual expenditures for urban households were $967, as compared to $875 for rural households.

- According to data provided by TNS Telecoms, a marketing research firm, households spent a total of $1,055 on telephone services during the year 2003: $441 on local service; $122 on long distance service; and $492 on wireless service.

I. Rates

This section focuses on rates for local telephone service provided by wireline telephone companies. The billing structure for local telephone service can be broadly classified as either flat-rate or message/measured service. Customers subscribing to flat-rate service do not pay any additional fees for calls within their local calling area, regardless of the number of calls they place. Alternatively, customers subscribing to message or measured service pay an additional charge for calls made within the local calling area. Message service denotes those plans which bill customers by the call, regardless of the length of the call, while measured service plans bill customers based upon the length of the call. Either plan may also base charges on the distance between the calling and called party. Under either message or measured service, some amount of calling may be included in the monthly basic charge and therefore be made without additional cost to the customer.

In addition to monthly charges for basic service and calling charges, customers pay a number of other charges for telephone service. The federal subscriber line charge is a line item that local exchange carriers are authorized to charge to recover a portion of the interstate costs of providing local phone service. Some states, such as Michigan, authorize local carriers to charge a state subscriber line charge. In some areas there are additional surcharges that the state telephone regulatory authority has authorized the carrier to charge customers. These surcharges are generally associated with price-cap plans and other regulatory matters that either limit the carrier's local service revenue to reasonable levels, or ensure that the carrier is fully compensated for the cost of providing service. In some states, most notably California, the surcharges change annually and can either add or subtract to the local rates of customers. Charges to fund local number portability, telecommunications relay services, and 911 services also appear on telephone bills in many parts of the country.

The local rate averages presented in this report include subscriber line charges and local number portability surcharges that are tariffed at the FCC. Revenues from these charges are classified as interstate and therefore are included in incumbent local exchange carrier (ILEC) universal service contribution bases. Prior to July 2000, the ILECs recovered the cost of universal service contributions through per-minute interstate access charges. In July 2000 the ILECs began recovering this cost through pass-through charges levied on local exchange service customers. These pass-through charges also are included in our calculations of the base rate for local service.

State, county, and municipal governments levy a number of charges on telephone service. These charges range from standard sales taxes to the 3 percent federal excise tax on telephone service, the latter of which is levied on all monthly service charges except for connection charges or state and municipal taxes appearing as separate line items on consumers' bills.

For local service, posted rates provide an accurate picture of prices paid by end users. However, the long distance market features a variety of rates for identical or similar services. Residential consumers may choose from a wide variety of distinct discount plans, and many businesses enter into contracts with long distance carriers rather than purchasing service at the posted rates. Consequently, basic rates do not necessarily reflect the prices that residential and business consumers actually pay for long distance services. In fact, the vast majority of customers employ discount long distance calling

plans and do not pay the basic schedule rate.[1] Numerous ILECs, competitive local exchange carriers (CLECs), and interexchange carriers (IXCs) are now offering bundled packages of local and long-distance voice services, many at discounted rates. In addition, many wireless providers offer packages that include a set number of minutes that may be used for local or long-distance calls.

A. Local Service Rates

The Industry Analysis and Technology Division of the Wireline Competition Bureau conducts an annual survey of ILEC local telephone service rates in 95 urban areas of the United States.[2] The cities surveyed are those that were included in the BLS Consumer Price Index (CPI) in 1986. In constructing averages and medians, the sample weights derived by the BLS are used. In addition to collecting information on monthly rates for service, the *Urban Rates Survey* collects information on charges paid to have a phone connected to the network and the price of optional inside wire maintenance plans offered by many local exchange carriers.

1. Residential Rates

Table 1.1 presents the national average rates for residential telephone service as of October 15, 2004. The average rate for flat-rate calling with touch-tone service in the 95 cities in the sample was $24.31. Measured or message service was $16.62, with an average additional charge of 8 cents for a 5-minute, same-zone, business-day call.

The charge to have a single residential line connected averaged $42.59 on October 15, 2004. If telephone service is being installed for the first time at a residence, a drop line from the nearest telephone cable must be run to the building and a connection block (network interface device) must be installed. In twenty-seven of the sample cities, an additional charge is levied for this work. The nationwide average connection charge would be $12.45 higher if these charges were included.

In some areas of the country, only one type of service is offered, either flat-rate or measured/message service, and consumers do not have a choice. In order to calculate a national average based upon all of the sample cities, we calculate a "representative rate." The representative rate is the flat-rate service charge in those areas where this type of service

[1] Bureau of Labor Statistics (BLS) price indices, presented in Section III, provide an alternative measure of long distance prices.

[2] In 2003, the form used to conduct the *Urban Rates Survey* was revised. Specifically, a more detailed breakout of carriers' surcharges and taxes now appear as separate line items on the survey instrument. The residential and business survey instruments are included in the attached Appendix. In addition, all carriers are now required to submit all line-item data in terms of dollar amounts, whereas before some line items were reported as percentages. These changes to the survey form allow for more accurate estimates of the total monthly recurring costs for basic local residential and single-line business service. Note that all estimates for 2002 and beyond reflect usage of the revised survey form, estimates for years 2001 and prior reflect those obtained from the previous survey instrument.

was available.[3] Table 1.2 presents the national average representative rates from 1986 to 2004. During this nineteen-year period, the average representative rate for residential local service has gone from $17.70 to $24.31, and average connection charges have dropped from $49.25 to $42.59.

Table 1.3 provides the rates in each of the 95 cities in the *Urban Rates Survey* as of October 15, 2004. Tables 1.4 and 1.5 provide historical rates for each of the sample cities.

2. Rates for Low-Income Households

Tables 1.1 through 1.5 show the local rates that are available to all customers. Many states, in addition to federal programs, subsidize low-income households' monthly service charges and connection fees. Most of these subsidy programs are part of the FCC's Lifeline and Link-Up programs. The goal of the Lifeline and Link-Up programs is to help achieve universal service by enabling lower-income households to obtain telephone service. Lifeline subsidizes lower-income households' monthly service charges, while Link-Up subsidizes lower-income households' connection charges. In 2004, qualifying households in all of the 95 surveyed cities received Lifeline and Link-Up benefits. Table 1.6 shows the average Lifeline and Link-Up rates in those cities and compares the subsidized rates to the standard rates. In 2004, low-income households on the Lifeline program paid $10.49 per month for local service, as compared to $24.31 paid by residential subscribers not on the Lifeline program, for an average saving of $13.82 per month. Low-income households receiving Link-Up assistance paid $14.08 for connection charges, as compared to $42.59 paid by residential subscribers not receiving LinkUp assistance, for an average Link-Up benefit of $28.51.

Table 1.7 presents the Lifeline and Link-Up rates, as well as the standard rates, in the sample cities as of October 15, 2004.

3. Business Rates

The *Urban Rates Survey* also collects information on charges for single-line business service. Beginning with the 2003 *Urban Rates Survey*, data pertaining to charges for multi-line business services (key systems and private branch exchanges) are no longer collected.

Table 1.8 presents the average monthly rates for flat-rate and measured/message service paid by a business with a single telephone line, as well as the connection charges a business could expect to pay. Table 1.9 calculates the "representative rate," and shows the trend in rates since 1989. Rates for single-line businesses have followed trends similar to those seen with residential rates. Rates have stayed relatively constant, moving with changes in the federal subscriber line charge, which was capped at $6.50 at the time of the latest survey. Tables 1.10 through 1.12 present current and historical rates for the sample cities.

[3] If flat-rate service was unavailable, the rate for measured/message service was used, along with the charges associated with placing 100 five-minute, same-zone, business-day calls. As of October 15, 2001, flat-rate local residential service was available in all 95 cities, so that approximating the cost of measured/message service with 100 five-minute, same-zone business day calls was unnecessary.

B. Standard Deviation Analysis of Residential Rates

In October 2003, the Federal Communications Commission adopted a recommendation by the Federal-State Joint Board on Universal Service establishing an annual adjusted nationwide urban rate benchmark for purposes of determining universal service support for non-rural carriers. This benchmark is used by the states and the Commission as a tool to assess the reasonable comparability of rates in rural and high-cost areas served by non-rural carriers to nationwide urban rates.[4] The urban rate benchmark adopted by the Commission is based upon the most recent average urban residential rate as shown in Table 1.1.

Because of the great variation in urban rates nationwide, the Commission adopted a "standard deviation analysis" which measures the dispersion of urban rates from the average. As such, an urban rate benchmark level of two (weighted) standard deviations above the (weighted) average urban rate is used. Table 1.13 presents the results of such a standard deviation analysis for the residential rates reported in the *Urban Rates Survey* as of October 15, 2004. The average, plus the two standard deviation benchmark, is $34.21. Table 1.14 shows the historical trend in the standard deviation analysis for the years 1993-2004. Over this period the average, plus the two standard deviation benchmark, rose by 20.4%.

C. Toll Service Rates

Since 1992, carriers have introduced an impressive array of discount and promotional plans, and many long distance residential customers subscribe to these plans. These plans take a variety of formats. Some plans offer a block of calling time for a fixed fee and reduced per minute rates for additional calling while others give volume discounts or discounts for calls to certain phone numbers or area codes. One common trend has been the introduction of flat-rate calling plans, which eliminate the mileage bands associated with traditional basic schedules. For example, Verizon's "Freedom" plan offers unlimited long-distance and local calling (as well as unlimited voice mail, caller ID, call waiting, speed dialing, and three-way calling) for as low as $49.95 per month (not including add-on charges). In addition, Verizon offers discounts on its high-speed Internet and wireless offerings to those subscribers who sign up for the "Freedom" plan.

Section 271 of the Telecommunications Act of 1996 allowed the Regional Bell Operating Companies (RBOCs) to provide in-region interLATA toll services once the companies satisfied a fourteen-point "checklist" of conditions which demonstrates that

[4] *See Federal-State Joint Board on Universal Service*, CC. Docket No. 96-45, Order on Remand, Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order, 18 FCC Rcd 22559, 22607-22610, paras. 80-82 (2003), *remanded, Qwest Communications Int'l, Inc. v. FCC*, Nos. 03-9617, 04-9518, 04-9519, 2005 WL 41969 (10th Cir. Feb. 23, 2005).

their local exchange markets are open to entry by competitive local exchange carriers. All of the RBOCs attained section 271 approvals for their particular markets, and many are now offering discounted bundled packages of voice and popular calling features.

Wireless companies and prepaid calling cards offer more options for long-distance consumers. Wireless companies now offer packages which enable customers to purchase a set number of minutes of usage per month at a set rate (some with unlimited nights and weekends) and allow customers to use these minutes for local or long distance calling. Consumers may also purchase prepaid calling cards, which contain an allotted number of minutes, with some charging rates less than three cents per minute.

Using revenue per-minute data for both residential and business interstate toll traffic, Table 1.15 illustrates the downward trend in long distance rates since discount long distance plans were introduced in 1992. The carriers' average revenue per interstate toll minute has fallen by 53% since 1992, demonstrating that the advent of discount long distance plans has produced lower rates for both business and residential consumers.

D. Additional Sources of Information on Local and Toll Rates

1. Local Rates

A few states have begun to place exchange service tariffs on the Internet. The National Association of Regulatory Utility Commissioners (NARUC) web site has links to the web sites of all of the state telecommunications regulatory agencies: www.naruc.org.

The Bureau of Labor Statistics (BLS), part of the U.S. Department of Labor, publishes a number of price indices that follow trends in local telephone rates. Part III of this report reviews these indices. The most current figures can be obtained at www.bls.gov.

2. Toll Rates

Up until August 2001, all interstate interexchange carriers were required to file tariffs setting forth their rates with the FCC. These filings were available for public inspection at the FCC's Reference Information Center, Washington, DC. As of August 1, 2001, interstate carriers were no longer required to file tariffs setting forth their interstate long distance rates. Since that date, carriers are required to post their rates on their websites.

The BLS publishes a number of price indices that follow trends in toll rates. Part III of this report reviews these indices. The most current figures can be obtained at stats.bls.gov.

Finally, there are a number of firms that specialize in monitoring major long distance companies and their rates, and many of these firms maintain Internet sites. Some examples are Abtolls.com, a free directory service guide to long distance carriers and their rates; Telecommunications Research and Action Center, which uses a search engine to find the lowest long distance rates for any selected calling pattern; *Phone Bill Busters*, which lists discount long distance plans and uses a search engine to find the lowest long distance rates for any selected calling pattern; and *Discount Long Distance Digest*, an Internet newsletter which offers a "free multi-carrier cost comparison service". One can access these services on the Internet at www.abtolls.com, www.trac.org, www.phone-bill-busters.com, and www.thedigest.com.

Table 1.1
Residential Rates for Local Service in Urban Areas
(As of October 15, 2004)

	Average Rate	Median Rate [2]
Monthly Charge for Flat-Rate Service [1]	$14.53	$13.43
Federal and State Subscriber Line Charges	5.81	6.26
Taxes, 911 and Other Charges	3.97	3.86
Total Monthly Charge for Flat-Rate Service	**$24.31**	**$23.55**
Number of Sample Cities with Flat-Rate Service	95	-
Monthly Charge for Measured/Message Service [1]	$7.69	$8.01
Federal and State Subscriber Line Charges	5.78	6.05
Taxes, 911 and Other Charges	3.15	3.15
Total Monthly Charge for Measured/Message Service	**$16.62**	**$17.21**
Cost of a 5-Minute Daytime Call	0.08	0.08
Number of Sample Cities with Message/Measured Service	95	-
Basic Connection Charge [1]	$39.26	$39.40
Taxes	3.32	2.81
Total Connection Charge	**$42.59**	**$42.21**
Additional Charge if Drop Line and Connection Block Needed	12.45	0.00
Lowest-Cost Inside Wiring Maintenance Plan	$3.98	$4.45

Note: Detail may not add to totals due to rounding.

[1] Rate includes additional monthly charges for touch-tone service.

[2] Where a rate exists for fewer than 95 cities, the median represents the midpoint rate for those cities which have the service offering.

Table 1.2
Average Residential Rates for Local Service in Urban Areas, 1986-2004
(As of October 15)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 [1]	2004 [2]
Representative Monthly Charge [3,4]	$12.58	$12.44	$12.32	$12.30	$12.36	$13.03	$13.05	$13.16	$13.19	$13.62	$13.71	$13.67	$13.75	$13.77	$13.64	$14.49	$14.38	$14.54	$14.53
Subscriber Line Charges	2.04	2.66	2.67	3.53	3.55	3.56	3.55	3.55	3.55	3.54	3.54	3.53	3.52	3.58	4.50	5.05	5.74	5.86	5.81
Additional Monthly Charge for Touch Tone Service	1.57	1.52	1.54	1.52	1.33	1.06	0.97	0.94	0.77	0.44	0.30	0.25	0.10	0.09	0.06	0.04	[4]	[4]	[4]
Taxes, 911, and Other Charges	1.51	1.56	1.58	1.70	2.00	2.12	2.15	2.29	2.31	2.41	2.40	2.42	2.39	2.48	2.57	3.03	3.94	4.12	3.97
Total Monthly Charge	**$17.70**	**$18.18**	**$18.11**	**$19.05**	**$19.24**	**$19.77**	**$19.72**	**$19.95**	**$19.81**	**$20.01**	**$19.95**	**$19.88**	**$19.76**	**$19.93**	**$20.78**	**$22.62**	**$24.07**	**$24.52**	**$24.31**
Basic Connection Charge [4]	45.63	44.04	42.94	43.06	43.06	42.00	41.50	41.38	41.28	40.91	41.11	41.04	41.24	41.26	41.45	40.02	39.83	39.22	39.26
Additional Connection Charge for Touch-tone Service	1.34	1.31	1.55	1.76	1.77	1.27	1.22	1.23	0.85	0.23	0.23	0.17	0.12	0.12	0.12	0.12	[4]	[4]	[4]
Taxes, 911, and Other Charges	2.28	2.20	2.11	2.44	2.32	2.30	2.29	2.30	2.33	2.44	2.36	2.46	2.38	2.57	2.53	2.81	1.33	3.32	3.32
Total Connection Charge	**$49.25**	**$47.55**	**$46.60**	**$47.26**	**$47.15**	**$45.57**	**$45.01**	**$44.92**	**$44.46**	**$43.58**	**$43.70**	**$43.67**	**$43.74**	**$43.95**	**$44.10**	**$42.95**	**$41.16**	**$42.54**	**$42.59**
Additional Charge if Drop Line and Connection Block Needed	[1]	[1]	6.04	6.07	6.89	6.89	6.50	7.29	6.74	5.90	5.74	5.65	5.64	5.86	5.84	5.84	5.85	12.13	12.45
Lowest-Cost Inside Wiring Maintenance Plan	0.58	0.85	0.89	1.07	1.07	1.20	1.25	1.31	1.45	1.52	1.78	1.68	2.22	2.66	3.03	3.62	3.62	3.64	3.98

Note: Details may not add to totals due to rounding.

[1] Revised.

[2] Subject to revision.

[3] Rates are based upon flat-rate service where available and measured/message service with 100 five-minute, same-zone, business-day calls elsewhere. Beginning in 2001, all rates reflect flat-rate service.

[4] Beginning in 2002, rate includes additional monthly charges for touch-tone service.

Table 1.3

Residential Telephone Rates in the Sample Cities [1]

(As of October 15, 2004)

State	City	Telephone Company	Monthly Telephone Rate Including Touch-Tone, Surcharges, and Taxes		Cost of a Five-Minute Same-Zone Daytime Call	Connection Charges Including Touch-Tone, Surcharges, and Taxes	Least-Cost Inside Wiring Maintenance Plan
			Flat-Rate Service	Measured/Message Service			
Alabama	Huntsville	BellSouth	$26.84	$22.04	$0.05	$40.00	$5.50
Alaska	Anchorage	Anchorage	21.61			53.50	2.00
Arizona	Tuscon	Qwest	22.66	17.25	0.20	27.50	4.75
Arkansas	Pine Bluff	SBC	27.53	18.88	0.07	45.00	4.45
Arkansas	West Memphis	SBC	33.55	17.88	0.07	45.00	4.45
California	Anaheim	SBC	16.05	11.69	0.05	33.01	2.99
California	Bakersfield	SBC	16.05	10.87	0.05	33.01	2.99
California	Fresno	SBC	16.05	10.87	0.05	33.01	2.99
California	Long Beach	Verizon	28.47	20.06	0.08	46.00	1.75
California	Los Angeles	SBC	16.05	10.87	0.05	33.01	2.99
California	Oakland	SBC	16.05	10.87	0.05	33.01	2.99
California	Salinas	SBC	16.05	10.87	0.05	33.01	2.99
California	San Diego	SBC	16.05	10.87	0.05	33.01	2.99
California	San Francisco	SBC	16.05	10.87	0.05	33.01	2.99
California	San Jose	SBC	16.05	10.87	0.05	33.01	2.99
Colorado	Boulder	Qwest	27.17	20.52	0.13	35.00	4.75
Colorado	Colorado Springs	Qwest	24.68	18.78	0.13	35.00	4.75
Colorado	Denver	Qwest	25.62	19.36	0.13	35.00	4.75
Connecticut	Ansonia	Verizon	22.15	15.52	0.18	65.00	3.95
Connecticut	Norwalk	Verizon	21.08	15.54	0.18	65.00	3.95
District of Columbia	Washington	Verizon	21.46	13.36	0.05	21.00	3.45
Florida	Miami	BellSouth	21.14			40.88	5.50
Florida	Tampa	Verizon	22.27	17.05	0.10	55.00	3.95
Florida	West Palm Beach	BellSouth	20.65			40.88	5.50
Georgia	Albany	BellSouth	25.91	18.18	0.12	42.50	5.50
Georgia	Atlanta	BellSouth	28.90			42.50	5.50
Hawaii	Honolulu	Verizon	26.23			45.50	3.95
Illinois	Chicago	SBC	21.78	10.00	0.05	39.40	3.95
Illinois	Decatur	SBC	28.78	17.10	0.05	39.40	4.95
Illinois	Rock Island	SBC	28.53	16.85	0.05	39.40	4.95
Indiana	Indianapolis	SBC	19.74	14.26	0.21	47.00	4.99
Indiana	Terre Haute	Verizon	25.95			57.20	3.95
Iowa	Fort Dodge	Frontier	19.90			12.95	3.95
Kentucky	Louisville	BellSouth	28.87	24.16	0.06	42.00	5.50
Louisiana	Baton Rouge	BellSouth	23.28	16.46	0.25	41.00	5.50
Louisiana	New Orleans	BellSouth	22.12	15.62	0.06	41.00	5.50
Maine	Portland	Verizon	27.28			44.75	3.45
Maryland	Baltimore	Verizon	27.94	20.05	0.08	44.25	3.45
Massachusetts	Boston	Verizon	29.88	22.39	0.09	13.50	3.45
Massachusetts	Hyannis	Verizon	29.88	22.39	0.09	13.50	3.45
Massachusetts	Springfield	Verizon	29.88	22.39	0.09	13.50	3.45
Michigan	Detroit	SBC	27.45	23.42	0.07	42.25	4.95
Michigan	Grand Rapids	SBC	25.11	21.97	0.07	42.25	4.95
Michigan	Saginaw	SBC	27.27	24.45	0.07	42.25	4.95
Minnesota	Detroit Lakes	Qwest	21.69	15.96	0.00	18.35	4.75
Minnesota	Minneapolis	Qwest	22.67	17.10	0.10	18.35	4.75
Mississippi	Pascagoula	BellSouth	28.73	19.98	0.04	46.00	5.50
Missouri	Kansas City	SBC	19.81	13.76	0.08	36.19	4.95
Missouri	Mexico	SBC	18.40	12.96	0.08	36.19	4.95
Missouri	St. Louis	SBC	20.23	13.95	0.08	36.19	4.95
Montana	Butte	Qwest	26.02	18.36	0.05	26.00	4.75
Nebraska	Grand Island	Qwest	28.75	22.92	0.10	33.00	4.75
New Jersey	Phillipsburg	Verizon	17.09	13.22	0.10	42.35	3.45

Table 1.3

Residential Telephone Rates in the Sample Cities - Continued [1]

(As of October 15, 2004)

State	City	Telephone Company	Monthly Telephone Rate Including Touch-Tone, Surcharges, and Taxes		Cost of a Five-Minute Same-Zone Daytime Call	Connection Charges Including Touch-Tone, Surcharges, and Taxes	Least-Cost Inside Wiring Maintenance Plan
			Flat-Rate Service	Measured/Message Service			
New Mexico	Alamogordo	Qwest	23.74	15.04	0.15	30.00	4.75
New York	Binghamton	Verizon	30.44	18.08	0.09	55.00	2.35
New York	Buffalo	Verizon	34.47	18.51	0.09	55.00	2.35
New York	Massena	Verizon	28.65	17.97	0.09	55.00	2.35
New York	New York City	Verizon	31.67	19.11	0.09	55.00	2.35
New York	Ogdensburg	Verizon	29.42	18.46	0.09	55.00	2.35
New York	Rochester	Frontier	20.44	13.23	0.08	33.32	3.95
North Carolina	Raleigh	BellSouth	23.32			42.75	5.50
North Carolina	Rockingham	BellSouth	22.15			42.75	5.50
Ohio	Canton	SBC	22.14	16.30	0.08	36.50	4.95
Ohio	Cincinnati	Cincinnati Bell	23.61	15.21	0.15	25.70	5.95
Ohio	Cleveland	SBC	22.45	16.52	0.08	36.50	4.95
Ohio	Columbus	SBC	22.19	16.33	0.08	36.50	4.95
Ohio	Toledo	SBC	22.29	16.41	0.08	36.50	4.95
Oregon	Corvallis	Qwest	22.67	15.45	0.15	16.50	4.75
Oregon	Portland	Qwest	22.66	15.44	0.15	16.50	4.75
Pennsylvania	Allentown	Verizon	22.10	17.46	0.07	40.00	3.45
Pennsylvania	Ellwood City	Verizon	22.53	17.90	0.07	40.00	3.45
Pennsylvania	Johnstown	Verizon	23.12	15.43	0.07	52.70	3.95
Pennsylvania	New Castle	Verizon	20.73	17.88	0.07	40.00	3.45
Pennsylvania	Philadelphia	Verizon	23.45	16.57	0.07	40.00	3.45
Pennsylvania	Pittsburgh	Verizon	23.45	16.57	0.07	40.00	3.45
Pennsylvania	Scranton	Verizon	22.10	17.46	0.07	40.00	3.45
Rhode Island	Providence	Verizon	30.29	18.08	0.05	33.83	3.45
South Carolina	Beaufort	Sprint	23.80	15.65	0.12	32.30	4.00
Tennessee	Memphis	BellSouth	23.08	14.38	0.06	41.50	5.50
Tennessee	Nashville	BellSouth	22.41	14.13	0.06	41.50	5.50
Texas	Brownsville	SBC	19.13	13.83	0.08	38.35	4.95
Texas	Corpus Christi	SBC	20.48	15.18	0.08	38.35	4.95
Texas	Dallas	SBC	23.14	16.71	0.08	38.35	4.95
Texas	Fort Worth	SBC	21.49	15.35	0.08	38.35	4.95
Texas	Houston	SBC	21.92	15.57	0.08	38.35	4.95
Texas	San Antonio	SBC	19.71	14.05	0.08	38.35	4.95
Utah	Logan	Qwest	21.41	19.34	0.10	25.00	4.75
Virginia	Richmond	Verizon	31.43	24.64	0.19	38.50	1.25
Virginia	Smithfield	Verizon	30.59	21.80	0.16	40.00	2.50
Washington	Everett	Verizon	24.49	17.83	0.02	43.25	3.95
Washington	Seattle	Qwest	21.33	17.44	0.07	31.00	4.75
West Virginia	Huntington	Verizon	23.32	13.87	0.16	42.00	3.45
Wisconsin	Milwaukee	SBC	33.84	14.76	0.04	51.90	
Wisconsin	Racine	SBC	33.58	14.78	0.04	51.90	

[1] All figures are preliminary and subject to revision.

Table 1.4
Monthly Residential Telephone Rates in the Sample Cities [1]
(As of October 15)

State	City	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 [2]	2004 [3]
Alabama	Huntsville	$24.60	$24.60	$23.06	$22.67	$22.67	$22.67	$22.67	$23.61	$24.85	$25.98	$26.76	$26.84
Alaska	Anchorage	16.20	14.44	14.47	14.47	14.46	14.48	14.48	14.34	15.42	20.95	21.50	21.61
Arizona	Tuscon	18.23	18.23	19.18	19.13	19.42	19.42	19.43	20.10	20.78	22.89	23.39	22.66
Arkansas	Pine Bluff	22.60	22.22	22.06	22.14	22.22	22.22	22.26	23.22	25.09	26.08	26.11	27.53
Arkansas	West Memphis	29.00	29.55	28.57	28.65	28.78	20.79	28.75	29.72	31.58	32.72	32.71	33.55
California	Anaheim	12.18	12.18	15.59	15.69	15.57	15.57	15.42	15.34	15.71	17.48	16.67	16.05
California	Bakersfield	12.18	12.18	15.59	15.69	15.57	15.57	15.42	15.34	15.71	17.48	16.67	16.05
California	Fresno	12.18	12.18	15.59	15.69	16.67	17.13	15.42	15.34	15.71	17.48	16.67	16.05
California	Long Beach	17.35	16.78	23.56	23.51	23.51	23.51	23.51	24.48	25.05	24.69	28.31	28.47
California	Los Angeles	13.39	13.39	17.09	17.20	15.57	16.01	16.59	16.87	17.28	17.48	16.67	16.05
California	Oakland	13.09	13.09	16.72	16.82	15.57	16.01	16.23	16.49	16.89	17.48	16.67	16.05
California	Salinas	12.79	12.91	16.49	16.59	15.57	16.01	16.02	16.26	16.65	17.48	16.67	16.05
California	San Bernadino	17.12	16.55	23.24	23.19	23.19	23.19	23.19	24.15	25.05	24.69	29.02	28.92
California	San Diego	12.18	12.18	15.59	15.69	15.57	16.01	15.42	15.34	15.71	17.48	16.67	16.05
California	San Francisco	12.18	12.69	15.59	15.69	16.45	16.91	15.16	15.34	15.71	17.48	16.67	16.05
Colorado	Boulder	20.99	21.26	21.51	21.55	21.36	21.39	22.07	23.04	23.07	27.06	27.68	27.17
Colorado	Colorado Springs	20.29	20.23	19.78	20.38	20.38	20.36	20.85	21.77	22.33	24.48	25.00	24.68
Colorado	Denver	20.80	21.12	21.10	21.14	21.11	21.40	21.91	22.85	22.98	25.71	26.23	25.62
Connecticut	Ansonia	17.22	17.60	18.70	18.70	18.70	18.64	19.41	20.67	22.02	22.41	22.34	22.15
Connecticut	Norwalk	16.13	16.51	17.60	17.60	17.60	17.55	18.32	19.58	20.93	21.32	21.25	21.08
District of Columbia	Washington	21.70	21.67	20.13	21.05	19.23	20.10	19.94	20.12	21.03	21.01	21.53	21.46
Florida	Miami	18.07	16.92	16.84	16.86	16.86	16.85	16.83	17.76	18.97	20.26	21.02	21.14
Florida	Tampa	17.45	17.45	17.65	19.09	19.19	19.23	19.23	20.27	21.04	22.29	22.49	22.27
Florida	West Palm Beach	16.74	15.65	15.59	15.89	15.89	15.60	15.58	16.73	18.15	19.56	20.29	20.65
Georgia	Albany	20.60	20.63	20.63	21.29	21.29	21.34	21.88	22.98	24.22	25.11	26.25	25.91
Georgia	Atlanta	24.50	24.53	24.80	24.98	24.98	24.92	24.92	26.04	27.25	28.56	29.54	28.90
Hawaii	Honolulu	19.35	20.60	21.35	22.52	22.40	22.40	22.40	23.28	23.28	25.34	26.35	26.23
Illinois	Chicago	18.21	18.20	17.31	17.63	17.18	17.18	14.52	15.52	21.64	24.68	22.12	21.78
Illinois	Decatur	21.56	21.54	20.19	20.18	20.18	20.18	22.26	23.26	21.08	31.52	29.15	28.78
Illinois	Rock Island	22.18	22.17	20.82	20.82	20.18	20.18	21.85	22.85	20.79	31.26	28.90	28.53
Indiana	Indianapolis	21.87	20.44	19.81	18.82	18.82	18.82	19.05	20.25	20.40	20.20	20.21	19.74
Indiana	Terre Haute	22.93	23.02	23.02	22.98	22.98	22.98	19.86	22.57	23.63	26.21	25.94	25.95
Iowa	Fort Dodge	13.79	14.06	14.06	14.06	15.96	15.90	15.57	16.49	17.62	19.04	19.51	19.90
Kentucky	Louisville	24.17	24.17	23.66	23.66	24.63	24.63	24.70	26.41	27.11	28.44	29.06	28.87
Louisiana	Baton Rouge	22.25	20.81	20.93	20.66	19.57	19.57	19.57	20.47	23.17	23.00	23.65	23.28
Louisiana	New Orleans	23.28	20.33	20.14	19.99	18.78	18.78	18.78	19.69	20.67	21.84	22.49	22.12
Maine	Portland	18.24	18.27	17.99	18.19	19.12	19.70	22.53	23.34	24.72	26.31	26.99	27.28
Maryland	Baltimore	24.98	24.98	24.98	24.98	24.98	24.67	24.67	25.73	26.47	27.14	28.09	27.94
Massachusetts	Boston	21.72	23.07	23.07	23.07	23.07	23.07	23.07	23.46	24.53	25.61	29.64	29.88
Massachusetts	Hyannis	20.43	23.07	23.07	23.07	23.07	23.07	23.07	23.46	24.53	25.61	29.64	29.88
Massachusetts	Springfield	21.72	23.07	23.07	23.07	23.07	23.07	23.07	23.46	24.53	25.61	29.64	29.88
Michigan	Detroit	19.25	19.55	19.50	19.42	19.42	19.76	22.50	25.99	27.12	27.77	27.39	27.45
Michigan	Grand Rapids	17.19	17.53	18.06	17.95	18.01	18.25	20.08	23.28	24.54	25.47	25.07	25.11
Michigan	Saginaw	18.75	16.93	18.96	20.05	20.05	20.11	19.85	22.99	27.71	28.18	27.52	27.27
Minnesota	Detroit Lakes	19.86	19.84	19.91	19.91	19.63	19.63	19.63	20.57	21.50	22.41	22.42	21.69
Minnesota	Minneapolis	21.64	21.66	21.73	21.73	21.45	21.46	20.61	21.54	22.48	23.38	23.39	22.67
Mississippi	Pascagoula	26.03	26.42	26.42	26.03	26.03	25.26	24.81	25.80	27.05	28.30	28.95	28.73
Missouri	Kansas City	20.40	19.03	18.15	18.15	19.53	19.53	18.25	19.21	20.68	20.33	20.25	19.81
Missouri	Mexico	17.14	15.81	17.19	17.19	17.26	17.26	17.26	18.42	20.10	18.76	18.91	18.40
Missouri	St. Louis	20.23	19.05	18.18	18.18	18.18	18.18	18.28	19.32	20.87	20.52	20.73	20.23
Montana	Butte	18.22	18.22	18.22	18.22	19.26	19.69	22.70	23.16	24.23	26.25	26.54	26.02
Nebraska	Grand Island	21.88	21.88	21.85	21.76	23.39	23.27	26.22	27.14	26.25	29.64	29.38	28.75
New Jersey	Phillipsburg	13.04	13.04	13.04	13.04	13.05	13.05	13.05	13.21	15.31	15.93	16.30	17.09

Table 1.4
Monthly Residential Telephone Rates in the Sample Cities - Continued [1]
(As of October 15)

State	City	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 [2]	2004 [3]
New Mexico	Alamogordo	20.21	20.46	20.65	20.82	20.99	20.99	19.03	17.50	18.14	22.47	24.22	23.74
New York	Binghamton	25.31	24.52	26.03	23.80	23.76	23.74	23.74	23.90	25.01	29.05	30.57	30.44
New York	Buffalo	32.68	31.63	30.62	28.34	28.29	28.27	28.27	28.37	32.41	32.52	34.25	34.47
New York	Massena	22.90	22.88	23.40	21.19	20.33	20.31	20.31	20.50	24.94	24.88	28.79	28.65
New York	New York City	26.75	26.73	25.00	24.92	24.88	24.86	24.86	25.00	28.45	29.04	31.81	31.67
New York	Ogdensburg	23.54	23.52	24.06	21.78	20.90	20.88	20.88	21.08	25.62	25.56	29.56	29.42
New York	Rochester	19.75	18.96	16.83	16.83	17.91	17.86	17.86	18.64	19.55	20.38	20.44	20.44
North Carolina	Raleigh	18.23	18.02	17.75	17.48	17.22	17.23	17.23	18.13	19.33	21.28	23.46	23.32
North Carolina	Rockingham	16.74	16.53	16.22	15.95	15.69	15.69	15.69	16.86	19.20	20.54	21.81	22.15
Ohio	Canton	21.29	21.29	20.00	19.59	18.87	18.72	18.56	19.28	20.31	21.06	21.18	22.14
Ohio	Cincinnati	20.30	21.24	21.13	21.13	21.13	21.05	21.55	22.74	23.54	23.76	23.98	23.61
Ohio	Cleveland	21.29	21.29	20.00	19.44	18.87	18.72	18.56	19.28	20.31	21.06	21.18	22.45
Ohio	Columbus	21.29	21.29	20.00	19.85	18.87	18.72	18.56	19.28	20.31	21.06	21.18	22.19
Ohio	Toledo	21.29	21.29	20.00	19.85	18.87	18.72	18.56	19.28	20.31	21.06	21.18	22.29
Oregon	Corvallis	19.02	18.21	18.73	19.65	19.66	19.88	19.97	21.05	21.62	24.05	23.11	22.67
Oregon	Portland	21.42	18.36	22.07	23.02	21.22	21.19	21.19	22.07	23.64	25.44	21.60	22.66
Pennsylvania	Allentown	17.70	17.70	17.59	17.63	17.47	17.94	17.48	18.35	19.59	20.87	22.21	22.10
Pennsylvania	Ellwood City	15.07	15.07	16.72	16.76	16.60	16.60	16.60	18.74	20.00	21.28	22.65	22.53
Pennsylvania	Johnstown	20.11	21.95	21.78	20.31	19.48	19.48	21.94	22.86	20.97	21.54	23.33	23.12
Pennsylvania	New Castle	15.07	15.58	14.97	15.01	14.90	14.90	14.90	17.04	18.30	19.58	20.84	20.73
Pennsylvania	Philadelphia	20.09	20.09	19.98	18.72	18.56	18.56	18.56	19.41	20.67	22.13	23.57	23.45
Pennsylvania	Pittsburgh	18.78	18.78	18.67	18.72	17.48	17.48	18.56	19.41	20.67	21.95	23.57	23.45
Pennsylvania	Scranton	16.41	16.41	17.59	17.63	18.56	18.56	17.48	18.32	19.59	20.87	22.31	22.10
Rhode Island	Providence	23.09	23.50	23.50	23.50	23.50	23.50	23.49	24.43	25.52	27.68	29.32	30.29
South Carolina	Beaufort	20.30	20.30	19.76	19.76	19.76	19.76	20.41	21.33	22.26	24.56	24.45	23.80
Tennessee	Memphis	20.25	20.25	20.25	20.33	20.33	20.33	19.95	20.33	21.76	22.15	22.80	23.08
Tennessee	Nashville	19.41	19.41	19.41	19.41	19.41	19.88	19.51	19.90	20.99	21.72	22.42	22.41
Texas	Brownsville	15.27	14.33	15.33	15.31	14.91	14.78	15.33	17.16	18.33	21.97	21.54	19.13
Texas	Corpus Christi	17.00	15.93	15.89	15.90	16.22	17.15	17.17	16.23	17.32	27.39	25.77	20.48
Texas	Dallas	18.97	17.99	18.00	17.92	17.47	18.07	17.97	19.45	20.64	28.10	26.79	23.14
Texas	Fort Worth	17.77	16.70	16.73	16.62	16.17	16.75	16.89	19.17	19.66	25.82	25.05	21.49
Texas	Houston	19.42	18.39	18.44	18.28	17.98	18.31	18.31	18.87	19.55	22.19	22.45	21.92
Texas	San Antonio	17.52	16.58	16.56	16.42	16.37	16.35	16.35	17.05	18.13	19.83	20.04	19.71
Utah	Logan	15.66	15.62	15.76	15.76	15.70	17.73	17.99	19.38	19.44	22.13	21.80	21.41
Virginia	Richmond	24.60	24.60	23.90	23.78	23.78	23.78	23.78	28.67	29.60	30.06	31.60	31.43
Virginia	Smithfield	17.01	17.01	17.01	16.90	16.90	16.90	16.90	17.87	27.82	33.29	30.81	30.59
Washington	Everett	18.97	18.97	18.97	18.97	18.97	18.97	19.53	20.47	22.27	24.65	24.71	24.49
Washington	Seattle	17.00	17.00	16.22	15.93	15.97	15.61	18.16	19.03	19.23	21.91	22.01	21.33
West Virginia	Huntington	28.73	28.73	28.73	28.21	27.68	27.16	27.16	25.69	27.47	29.16	29.25	23.32
Wisconsin	Milwaukee	16.56	15.91	15.91	15.92	15.92	15.92	16.76	17.46	34.75	34.95	35.56	33.84
Wisconsin	Racine	16.61	15.96	15.87	15.88	15.88	15.88	16.40	17.09	34.61	34.93	35.54	33.58

[1] Beginning in 2001, all rates reflect flat-rate service. Rates are for flat-rate service where available and measured/message service with 100 local calls elsewhere. All rates include touch-tone service, surcharges, 911 charges, and taxes.

[2] Revised figures.

[3] Preliminary figures - subject to revision.

Table 1.5
Connection Charges for a Residential Telephone Line in the Sample Cities [1]
(As of October 15)

State	City	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 [2]	2004 [3]
Alabama	Huntsville	$42.68	$42.68	$42.68	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00	$40.00
Alaska	Anchorage	25.50	25.50	25.50	25.50	25.50	25.50	35.00	35.00	35.00	43.40	43.40	53.50
Arizona	Tuscon	51.74	51.74	51.74	48.92	48.92	48.92	49.85	46.59	38.43	35.00	30.61	30.61
Arkansas	Pine Bluff	52.72	44.16	43.92	44.08	44.05	44.05	44.16	39.70	44.16	39.70	39.70	45.00
Arkansas	West Memphis	53.25	44.24	44.54	44.67	44.71	44.57	44.69	39.70	44.69	39.70	39.70	45.00
California	Anaheim	34.32	34.32	35.19	35.47	35.61	35.93	34.29	32.23	32.47	33.01	35.82	35.82
California	Bakersfield	34.32	34.32	35.19	35.47	34.92	35.93	34.29	32.23	32.47	35.82	35.82	35.82
California	Fresno	34.32	34.32	35.19	35.47	34.92	35.93	34.29	32.23	32.47	35.82	35.82	35.82
California	Long Beach	55.25	52.89	45.73	45.61	45.61	45.61	45.61	45.61	45.51	46.00	52.46	53.09
California	Los Angeles	34.32	34.32	35.19	35.47	34.92	35.93	33.70	32.23	35.77	35.82	35.82	35.82
California	Oakland	34.32	34.32	35.19	35.47	34.92	35.93	33.70	32.23	32.47	35.82	35.82	35.82
California	Salinas	34.32	34.32	35.19	35.47	34.92	35.93	33.70	32.23	32.47	35.82	35.82	35.82
California	San Bernadino	55.25	52.89	45.73	45.61	45.61	45.61	45.61	45.61	45.51	46.00	53.84	54.01
California	San Diego	34.32	34.32	35.19	35.47	34.92	35.93	34.29	32.23	32.47	35.82	35.82	35.82
California	San Francisco	34.32	34.32	35.19	35.47	34.92	35.93	34.29	32.23	32.47	35.82	35.82	35.82
California	San Jose	34.32	34.32	35.19	35.47	35.93	35.93	34.29	32.23	34.12	35.82	35.82	35.82
Colorado	Colorado Springs	36.84	36.40	36.40	36.40	36.40	36.40	37.53	36.09	37.38	35.00	37.09	37.09
Colorado	Denver	37.56	37.56	37.56	37.56	37.56	37.56	38.72	36.09	38.54	38.27	38.27	38.27
Connecticut	Ansonia	47.70	47.70	47.70	47.70	47.70	47.70	47.70	55.00	58.30	65.00	65.00	65.00
Connecticut	Norwalk	47.70	47.70	47.70	47.70	47.70	47.70	47.70	55.00	58.30	65.00	65.00	65.00
District of Columbia	Washington	30.76	30.76	30.76	30.76	30.76	30.76	30.76	30.76	21.00	23.10	25.10	25.10
Florida	Miami	44.50	40.00	40.00	40.00	40.00	40.00	40.00	40.00	43.32	43.92	44.25	44.17
Florida	Tampa	62.98	62.98	62.98	59.13	59.13	59.13	59.13	55.00	59.13	55.00	61.15	61.15
Florida	West Palm Beach	44.50	40.00	40.00	40.00	40.00	40.00	40.00	40.00	43.28	43.88	44.05	44.05
Georgia	Albany	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50
Georgia	Atlanta	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50
Hawaii	Honolulu	45.50	45.50	45.50	49.30	50.74	50.74	50.74	50.61	50.72	45.50	53.91	53.91
Illinois	Chicago	60.56	60.56	60.56	60.56	60.56	60.56	63.03	55.00	59.76	45.40	39.60	39.40
Illinois	Decatur	60.64	60.64	60.64	60.64	60.64	60.64	62.56	55.00	59.31	45.40	39.40	39.40
Illinois	Rock Island	60.64	60.64	60.64	60.64	60.64	60.64	62.56	55.00	59.31	45.40	39.60	39.40
Indiana	Indianapolis	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00
Indiana	Terre Haute	60.06	60.06	60.06	60.06	60.06	60.06	60.06	60.06	60.06	57.20	62.35	62.35
Iowa	Fort Dodge	9.82	9.82	9.82	9.82	14.06	13.98	13.59	12.94	13.57	12.80	12.76	12.95
Kentucky	Louisville	34.50	34.50	34.50	42.00	42.00	42.00	42.00	42.00	44.52	44.52	44.52	44.52
Louisiana	Baton Rouge	51.80	51.80	44.63	44.29	42.23	42.23	42.23	41.00	44.28	44.34	44.34	44.34
Louisiana	New Orleans	51.50	52.00	44.29	44.29	42.23	42.23	42.23	41.00	42.23	42.23	42.23	42.23
Maine	Portland	47.44	47.44	47.44	47.44	47.44	47.21	47.21	44.75	46.99	44.75	48.33	48.33
Maryland	Baltimore	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	56.18	51.79
Massachusetts	Boston	38.92	38.92	38.92	38.92	38.92	38.92	38.92	37.07	14.18	13.50	14.59	14.59
Massachusetts	Hyannis	38.92	38.92	38.92	38.92	38.92	38.92	38.92	37.07	14.18	13.50	14.59	14.59
Massachusetts	Springfield	38.92	38.92	38.92	38.92	38.92	38.92	38.92	37.07	14.18	13.50	14.59	14.59
Michigan	Detroit	43.68	44.52	44.52	44.52	44.52	44.52	46.62	42.00	46.62	46.62	46.62	46.90
Michigan	Grand Rapids	43.68	44.52	44.52	44.52	44.52	44.52	44.52	42.00	44.52	44.52	44.52	44.78
Michigan	Saginaw	43.68	44.52	44.52	44.52	44.52	44.52	44.52	42.00	44.52	44.52	44.52	44.78
Minnesota	Detroit Lakes	18.75	18.75	18.75	19.97	19.54	19.54	19.54	18.35	19.54	19.54	19.54	19.54
Minnesota	Minneapolis	18.75	18.75	18.75	20.06	19.63	19.63	19.63	18.35	19.63	19.63	19.63	19.63
Mississippi	Pascagoula	49.22	49.22	49.22	49.22	49.22	49.22	49.22	46.00	49.22	49.22	49.22	49.22
Missouri	Kansas City	52.95	42.47	42.47	42.47	42.47	42.47	42.70	36.50	41.69	41.51	37.45	41.16
Missouri	Mexico	51.98	51.98	41.70	41.70	41.88	41.88	41.88	36.50	41.49	41.18	41.55	41.53
Missouri	St. Louis	53.16	53.67	43.06	43.06	43.06	43.06	43.30	36.50	42.93	42.61	42.99	42.97
Montana	Butte	35.30	35.30	25.00	25.00	25.00	25.00	26.00	26.00	26.00	26.00	26.00	26.00
Nebraska	Grand Island	30.52	30.52	30.52	36.03	36.03	36.03	37.41	35.29	37.27	37.44	37.44	37.60
New Jersey	Phillipsburg	44.52	44.52	44.52	44.89	44.89	44.89	44.89	42.35	44.89	44.89	46.16	46.16

Table 1.5
Connection Charges for a Residential Telephone Line in the Sample Cities - Continued
(As of October 15)

State	City	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 [2]	2004 [3]
New Mexico	Alamogordo	31.86	31.96	31.96	31.86	31.86	31.86	31.86	30.00	31.99	32.01	32.01	32.09
New York	Binghamton	62.48	62.42	62.71	62.59	62.47	62.41	62.41	57.13	61.53	55.00	61.61	61.61
New York	Buffalo	64.19	64.13	63.83	63.71	63.59	63.53	63.53	58.17	62.57	55.00	62.68	62.68
New York	Massena	62.69	62.63	62.34	62.22	62.10	62.05	62.05	57.33	61.18	55.00	61.26	61.26
New York	New York	64.64	64.58	64.29	64.02	63.90	63.84	63.84	58.32	62.47	55.00	62.62	62.62
New York	Ogdensburg	64.46	64.39	64.09	63.97	63.85	63.79	63.79	57.33	62.83	55.00	62.91	62.91
New York	Rochester	47.01	33.32	33.32	33.32	33.32	33.32	33.32	33.32	33.32	33.32	33.32	33.32
North Carolina	Raleigh	44.03	44.03	44.03	44.03	44.03	44.03	44.03	42.75	44.03	45.32	45.32	45.32
North Carolina	Rockingham	44.03	44.03	44.03	44.03	44.03	44.03	44.03	42.75	44.03	45.32	45.32	45.32
Ohio	Canton	45.80	45.80	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50
Ohio	Cincinnati	30.25	31.70	31.70	31.70	31.70	25.70	25.70	25.70	25.70	25.70	25.70	25.70
Ohio	Cleveland	45.80	45.80	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50
Ohio	Columbus	45.80	45.80	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50
Ohio	Toledo	45.80	45.80	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50	36.50
Oregon	Corvallis	12.00	12.00	12.00	12.36	12.36	12.36	12.36	12.36	12.72	16.50	17.90	17.99
Oregon	Portland	12.00	12.00	12.00	12.36	12.36	12.36	12.36	12.36	12.72	16.50	17.90	17.99
Pennsylvania	Allentown	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	43.60	43.60
Pennsylvania	Ellwood City	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	43.60	43.60
Pennsylvania	Johnstown	55.86	55.86	55.86	55.86	55.86	55.86	55.86	52.70	55.86	52.70	57.44	57.44
Pennsylvania	New Castle	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	43.60	43.60
Pennsylvania	Philadelphia	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.40	44.00	44.00
Pennsylvania	Pittsburgh	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	44.00	44.00
Pennsylvania	Scranton	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	43.60	43.60
Rhode Island	Providence	30.39	36.20	36.20	36.20	36.20	36.20	36.20	33.83	36.20	33.83	37.21	37.21
South Carolina	Beaufort	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30
Tennessee	Memphis	47.39	47.39	47.39	47.62	47.62	47.62	47.40	43.85	47.28	47.76	47.96	47.96
Tennessee	Nashville	45.13	45.13	45.13	45.13	45.13	45.13	44.92	41.50	44.92	45.44	45.45	45.45
Texas	Brownsville	46.66	44.06	47.12	47.08	47.07	46.65	47.39	38.35	47.39	44.06	41.51	41.51
Texas	Corpus Christi	50.45	47.39	47.28	47.31	48.25	43.85	43.91	38.35	43.91	43.91	41.47	41.47
Texas	Dallas	51.15	48.38	48.38	48.18	46.95	48.58	48.31	38.35	48.31	44.06	41.51	41.51
Texas	Fort Worth	50.80	47.82	47.90	47.59	46.31	47.95	48.36	38.35	48.36	44.06	41.32	41.32
Texas	Houston	51.22	48.37	48.40	47.98	47.20	44.06	44.06	38.35	44.06	44.06	41.13	41.13
Texas	San Antonio	49.99	47.38	47.31	46.93	47.71	43.85	43.85	38.35	43.85	43.91	41.18	41.13
Utah	Logan	19.92	19.90	19.90	26.53	26.50	26.50	26.83	25.17	27.41	25.00	26.68	27.89
Virginia	Richmond	38.50	38.50	38.50	38.50	38.50	38.50	38.50	38.50	38.50	38.50	50.79	50.79
Virginia	Smithfield	29.25	29.25	29.25	30.00	30.00	30.00	40.00	40.00	40.00	40.00	47.20	47.20
Washington	Everett	42.08	42.08	42.08	46.67	46.67	46.67	46.67	43.25	46.67	43.25	50.09	50.09
Washington	Seattle	33.08	33.08	32.98	32.98	32.98	32.98	32.98	32.98	32.98	32.98	32.98	32.98
West Virginia	Huntington	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	44.10	44.10
Wisconsin	Milwaukee	34.87	34.87	34.87	34.90	34.90	35.52	47.52	45.00	58.08	55.00	51.90	51.90
Wisconsin	Racine	34.70	34.70	34.70	34.74	34.74	35.52	47.30	55.00	57.81	55.00	51.90	51.90

[1] Rates include additonal monthly taxes and surcharges.

[2] Revised figures.

[3] Subject to revision.

Table 1.6
Comparison of Standard Local Telephone Rates to Lifeline and Link-Up Rates
(As of October 15, 2004)

	Standard Rate in Cities with Subsidy Plan (a)	Subsidy-Plan Rate (b)	Benefit (a) - (b)
Representative Monthly Charge [1]	$14.53	$8.52	$6.02
Federal and State Subscriber Line Charges	5.81	0.14	5.67
Taxes, 911 and Other Charges	3.97	1.83	2.14
Total Monthly Charge [2]	$24.31	$10.49	$13.82
Basic Connection Charge	$39.26	$12.96	$26.30
Taxes	3.32	1.12	2.21
Total Connection Charge [2]	$42.59	$14.08	$28.51

Note: Detail may not add to totals due to rounding.

[1] All standard rates reflect flat-rate service. Subsidy plan rates reflect flat-rate subsidized service where available and subsidized measured/message service with 100 calls elsewhere.

[2] Averages are for the 95 cities with subsidized monthly rates and connection assistance plans.

Table 1.7
Lifeline and Link-Up Rates in the Sample Cities
(As of October 15, 2004)

State	City	Telephone Company	Monthly Telephone Rate [1] Including Surcharges and Taxes		Connection Charge Including Surcharges and Taxes	
			Standard Rates	Lifeline Rates	Standard Rates	Link-Up Rates
Alabama	Huntsville	BellSouth	$26.84	$11.14	$40.00	$20.00
Alaska	Anchorage	Anchorage	21.61	1.64	53.50	0.00
Arizona	Tucson	Qwest	22.66	9.68	27.50	15.31
Arkansas	Pine Bluff	SBC	27.53	14.37	45.00	22.50
Arkansas	West Memphis	SBC	33.55	20.17	45.00	22.50
California	Anaheim	SBC	16.05	10.50	33.01	17.81
California	Bakersfield	SBC	16.05	10.50	33.01	17.81
California	Fresno	SBC	16.05	10.50	33.01	17.81
California	Long Beach	Verizon	28.47	5.44	46.00	11.55
California	Los Angeles	SBC	16.05	10.50	33.01	17.81
California	Oakland	SBC	16.05	10.50	33.01	17.81
California	San Bernadino	Verizon	28.92	5.54	46.00	11.74
California	San Diego	SBC	16.05	10.50	33.01	17.81
California	San Francisco	SBC	16.05	10.50	33.01	17.81
California	San Jose	SBC	16.05	10.50	33.01	17.81
Colorado	Boulder	Qwest	27.17	6.56	35.00	20.10
Colorado	Colorado Springs	Qwest	24.68	6.08	35.00	18.55
Colorado	Denver	Qwest	25.62	6.10	35.00	19.14
Connecticut	Ansonia	SBC	22.15	11.18	65.00	35.00
Connecticut	Norwalk	SBC	21.08	10.10	65.00	35.00
District of Columbia	Washington	Verizon	21.46	4.49	21.00	12.55
Florida	Miami	BellSouth	21.14	6.14	40.88	22.08
Florida	Tampa	Verizon	22.27	6.36	55.00	30.58
Florida	West Palm Beach	BellSouth	20.65	5.24	40.88	22.02
Georgia	Albany	BellSouth	25.91	10.66	42.50	21.25
Georgia	Atlanta	BellSouth	28.90	13.58	42.50	21.25
Hawaii	Honolulu	Verizon	26.23	15.42	45.50	26.95
Illinois	Chicago	SBC	21.78	14.04	39.40	9.70
Illinois	Decatur	SBC	28.78	21.12	39.40	9.70
Illinois	Rock Island	SBC	28.53	20.87	39.40	9.70
Indiana	Indianapolis	SBC	19.74	11.82	47.00	0.00
Indiana	Terre Haute	Verizon	25.95	16.08	57.20	31.18
Iowa	Fort Dodge	Frontier	19.90	10.00	12.95	6.48
Kentucky	Louisville	BellSouth	28.87	13.48	42.00	22.26
Louisiana	Baton Rouge	BellSouth	23.28	13.85	41.00	22.18
Louisiana	New Orleans	BellSouth	22.12	12.80	41.00	21.12
Maine	Portland	Verizon	27.28	9.67	44.75	10.80
Maryland	Baltimore	Verizon	27.94	7.78	44.25	16.68
Massachusetts	Boston	Verizon	29.88	8.86	13.50	7.29
Massachusetts	Hyannis	Verizon	29.88	8.86	13.50	7.29
Massachusetts	Springfield	Verizon	29.88	8.86	13.50	7.29
Michigan	Detroit	SBC	27.45	15.95	42.25	0.00
Michigan	Grand Rapids	SBC	25.11	13.81	42.25	0.00
Michigan	Saginaw	SBC	27.27	16.27	42.25	0.00
Minnesota	Detroit Lakes	Qwest	21.69	11.88	18.35	9.78
Minnesota	Minneapolis	Qwest	22.67	12.85	18.35	9.82
Mississippi	Pascagoula	BellSouth	28.73	13.18	46.00	24.61
Missouri	Kansas City	SBC	19.81	8.77	36.19	18.10
Missouri	Mexico	SBC	18.40	7.09	36.19	18.10
Missouri	St. Louis	SBC	20.23	8.98	36.19	18.10
Montana	Butte	Qwest	26.02	6.93	26.00	13.00
Nebraska	Grand Island	Qwest	28.75	16.38	33.00	18.80
New Jersey	Phillipsburg	Verizon	17.09	1.58	42.35	23.09

Table 1.7
Lifeline and Link-Up Rates in the Sample Cities - Continued
(As of October 15, 2004)

State	City	Telephone Company	Monthly Telephone Rate [1] Including Surcharges and Taxes		Connection Charge Including Surcharges and Taxes	
			Standard Rates	Lifeline Rates	Standard Rates	Link-Up Rates
New Mexico	Alamogordo	Qwest	23.74	5.26	30.00	8.02
New York	Binghamton	Verizon	30.44	13.50	55.00	5.60
New York	Buffalo	Verizon	34.47	17.74	55.00	5.70
New York	Massena	Verizon	28.65	10.28	55.00	5.57
New York	New York City	Verizon	31.67	13.72	55.00	5.69
New York	Ogdensburg	Verizon	29.42	10.56	55.00	5.72
New York	Rochester	Frontier - Rochester	20.44	8.46	33.32	10.00
North Carolina	Raleigh	BellSouth	23.32	7.97	42.75	22.66
North Carolina	Rockingham	BellSouth	22.15	6.80	42.75	22.66
Ohio	Canton	SBC	22.14	8.58	36.50	0.00
Ohio	Cincinnati	Cincinnati Bell	23.61	10.37	25.70	0.00
Ohio	Cleveland	SBC	22.45	8.70	36.50	0.00
Ohio	Columbus	SBC	22.19	8.60	36.50	0.00
Ohio	Toledo	SBC	22.29	8.64	36.50	0.00
Oregon	Corvallis	Qwest	22.67	7.39	16.50	8.99
Oregon	Portland	Qwest	22.66	7.38	16.50	8.99
Pennsylvania	Allentown	Verizon	22.10	8.67	40.00	21.80
Pennsylvania	Ellwood City	Verizon	22.53	9.10	40.00	21.80
Pennsylvania	Johnstown	Verizon	23.12	9.15	52.70	28.72
Pennsylvania	New Castle	Verizon	20.73	7.30	40.00	21.80
Pennsylvania	Philadelphia	Verizon	23.45	9.90	40.00	22.00
Pennsylvania	Pittsburgh	Verizon	23.45	9.90	40.00	22.06
Pennsylvania	Scranton	Verizon	22.10	8.67	40.00	21.80
Rhode Island	Providence	Verizon	30.29	13.40	33.83	18.61
South Carolina	Beaufort	Sprint	23.80	7.77	32.30	16.15
Tennessee	Memphis	BellSouth	23.08	7.01	41.50	24.00
Tennessee	Nashville	BellSouth	22.41	6.68	41.50	22.52
Texas	Brownsville	SBC	19.13	3.89	38.35	19.18
Texas	Corpus Christi	SBC	20.48	3.34	38.35	19.18
Texas	Dallas	SBC	23.14	7.06	38.35	19.18
Texas	Fort Worth	SBC	21.49	5.50	38.35	19.18
Texas	Houston	SBC	21.92	5.27	38.35	19.18
Texas	San Antonio	SBC	19.71	4.92	38.35	19.18
Utah	Logan	Qwest	21.41	5.57	25.00	13.95
Virginia	Richmond	Verizon	31.43	16.97	38.50	25.39
Virginia	Smithfield	Verizon	30.59	13.70	40.00	23.60
Washington	Everett	Verizon	24.49	10.24	43.25	25.05
Washington	Seattle	Qwest	21.33	9.61	31.00	16.49
West Virginia	Huntington	Verizon	23.32	20.35	42.00	0.00
Wisconsin	Milwaukee	SBC	33.84	23.87	51.90	0.00
Wisconsin	Racine	SBC	33.58	23.85	51.90	0.00

[1] Rates are for flat-rate service where available and measured/message service with 100 calls elsewhere. Rates are subject to revision.

Table 1.8

Average Local Rates for Businesses with a Single Line in Urban Areas
(As of October 15, 2004)

	Average Rate	Median Rate [1]
Monthly Charge for Flat-Rate Service [2]	$32.81	$33.42
Federal and State Subscriber Line Charges	5.84	6.50
Taxes, 911, and Other Charges	7.57	7.07
Total Monthly Charge for Flat-Rate Service	**$46.21**	**$46.99**
Number of Sample Cities with Flat-Rate Service	53	
Monthly Charge for Measured/Message Service [2]	$17.59	$18.14
Federal and State Subscriber Line Charges	5.66	6.05
Taxes, 911, and Other Charges	4.90	4.59
Total Monthly Charge for Measured/Message Service	**$28.15**	**$28.78**
Cost of a 5-Minute Daytime Call	0.10	0.08
Number of Sample Cities with Message/Measured Service	85	
Basic Connection Charge [2]	$67.24	$62.85
Taxes	6.93	5.71
Total Connection Charge	**$74.17**	**$68.56**
Additional Charge if Drop Line and Connection Block Needed	13.76	0.00
Lowest-Cost Inside Wiring Maintenance Plan	$5.25	$5.75

Note: Detail may not add to totals due to rounding.

[1] Where a rate exists for fewer than 95 cities, the median represents the midpoint rate for those cities which have the service offering.

[2] Includes additional monthly charges for touch-tone service.

Table 1.9
Average Local Rates for Businesses with a Single Line in Urban Areas
(As of October 15)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 [1]	2004 [2]
Monthly Representative Service Charge [3]	$31.06	$30.97	$32.29	$32.45	$32.70	$32.25	$32.48	$32.58	$32.76	$32.44	$32.41	$32.18	$31.88	$30.86	$30.65	$32.42
Subscriber Line Charges	3.55	3.57	3.57	3.56	3.57	3.57	3.57	3.54	3.54	3.54	3.52	4.39	4.91	5.63	5.76	5.72
Extra for Touch-Tone Service [4]	2.43	2.35	1.84	1.71	1.67	1.21	0.97	0.82	0.38	0.32	0.25	0.19	0.18	[4]	[4]	[4]
Taxes, 911, and Other Charges	4.21	4.32	4.42	4.57	4.63	4.61	4.79	4.87	4.99	4.97	5.03	5.04	5.45	5.47	5.55	5.62
Total Monthly Charge	**$41.25**	**$41.21**	**$42.12**	**$42.29**	**$42.57**	**$41.64**	**$41.80**	**$41.81**	**$41.67**	**$41.27**	**$41.21**	**$41.80**	**$42.43**	**$41.95**	**$41.96**	**$43.75**
Monthly Charge for Flat-Rate Service	$33.04	$33.29	$34.12	$34.06	$34.85	$34.39	$34.45	$34.42	$34.68	$34.39	$33.73	$33.45	$32.02	$32.92	$33.17	$32.81
Subscriber Line Charges	3.65	3.69	3.70	3.70	3.70	3.70	3.69	3.61	3.61	3.56	3.50	4.35	4.77	5.77	6.03	5.84
Extra for Touch-Tone Service [4]	2.12	2.11	1.87	1.84	1.76	1.12	1.00	0.89	0.53	0.49	0.47	0.43	0.39	[4]	[4]	[4]
Taxes, 911, and Other Charges	4.90	4.98	5.22	5.34	5.50	5.36	5.58	5.55	5.58	5.63	5.49	5.68	5.98	8.16	7.91	7.57
Total Monthly Charge for Flat-Rate Service	**$43.71**	**$44.07**	**$44.91**	**$44.94**	**$45.81**	**$44.57**	**$44.71**	**$44.47**	**$44.39**	**$44.07**	**$43.20**	**$43.90**	**$43.15**	**$46.85**	**$47.12**	**$46.21**
Number of Sample Cities with Flat-Rate Service	59	56	54	54	54	53	53	53	53	54	54	54	54	52	52	53
Monthly Charge for Measured/Message Service	$16.18	$16.17	$16.76	$16.55	$16.60	$16.74	$17.06	$17.26	$17.28	$17.16	$17.06	$16.92	$17.16	$17.56	$17.21	$17.59
200 Five-Minute, Business-Day, Same-Zone Calls	16.11	16.19	16.70	17.23	17.57	17.38	17.15	17.10	17.18	17.15	17.24	17.63	17.56	16.78	17.17	19.36
Subscriber Line Charges	3.54	3.55	3.55	3.54	3.55	3.55	3.54	3.51	3.51	3.53	3.52	4.39	4.90	5.56	5.65	5.66
Extra for Touch-Tone Service [4]	2.48	2.39	1.87	1.73	1.68	1.22	0.98	0.83	0.39	0.33	0.25	0.20	0.19	[4]	[4]	[4]
Tax, Including 911 Charges	4.41	4.53	4.56	4.77	4.86	4.83	5.01	5.13	5.22	5.19	5.28	5.32	5.76	4.71	4.78	4.90
Total Monthly Charge for Measured/Message Service	**$42.72**	**$42.83**	**$43.44**	**$43.82**	**$44.26**	**$43.72**	**$43.75**	**$43.84**	**$43.57**	**$43.35**	**$43.35**	**$44.45**	**$45.57**	**$44.61**	**$44.82**	**$47.51**
Number of Sample Cities with Measured/Message Service	83	83	84	84	84	87	87	86	85	85	85	85	85	86	85	85
Cost of a Five-Minute, Business-Day, Same-Zone Call	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.10
Basic Connection Charge	$71.05	$71.36	$72.75	$72.55	$71.41	$69.88	$67.87	$68.47	$68.67	$65.83	$67.87	$67.77	$67.04	$67.29	$67.23	$67.24
Additional Connection Charge for Touch-Tone Service [4]	1.70	1.89	1.13	1.19	1.17	0.92	0.27	0.17	0.17	0.12	0.12	0.12	0.12	[4]	[4]	[4]
Tax, Including 911 Charges	4.06	4.15	4.32	4.33	4.25	4.13	4.17	4.20	4.45	4.13	4.53	4.40	4.69	5.09	6.95	6.93
Total Connection Charge	**$76.81**	**$77.40**	**$78.20**	**$78.07**	**$76.83**	**$74.93**	**$72.31**	**$72.85**	**$73.29**	**$70.09**	**$72.55**	**$72.29**	**$71.86**	**$72.39**	**$74.18**	**$74.17**
Additional Charge if Drop Line and Connection Block Needed	$5.92	$7.87	$6.90	$6.83	$6.64	$6.49	$7.28	$6.98	$6.54	$6.54	$6.65	$6.62	$6.62	$6.52	$13.43	$13.76
Lowest-Cost Inside Wiring Maintenance Plan	$1.78	$1.91	$2.05	$2.03	$2.08	$2.26	$2.39	$2.63	$2.84	$3.04	$3.53	$3.92	$4.86	$4.73	$4.65	$5.25

Note: Details may not add to totals due to rounding.

[1] Revised.

[2] Subject to revision.

[3] Rates are based on flat-rate service where available and measured/message service with 200 five-minute, same-zone, business-day calls elsewhere.

[4] Starting in 2002, additional monthly charges for touch-tone service are included in the monthly charge.

Table 1.10
Telephone Rates in the Sample Cities for a Business with a Single Line
(As of October 15, 2004)

State	City	Telephone Company	Monthly Telephone Rate Including Touch-Tone, Surcharges, and Taxes		Cost of a Five-Minute Same-Zone Daytime Call	Connection Charges Including Touch-Tone, Surcharges, and Taxes
			Flat-Rate Service	Measured/Message Service		
Alabama	Huntsville	BellSouth	$49.59	$35.77	$0.17	$69.00
Alaska	Anchorage	Anchorage	35.68			56.50
Arizona	Tucson	Qwest	42.54			47.30
Arkansas	Pine Bluff	SBC	47.10	31.05	0.07	93.43
Arkansas	West Memphis	SBC	58.67	28.79	0.07	94.55
California	Anaheim	SBC		16.47	0.01	72.92
California	Bakersfield	SBC		16.28	0.01	72.92
California	Fresno	SBC		16.27	0.01	72.83
California	Long Beach	Verizon		30.75	0.08	101.34
California	Los Angeles	SBC		16.27	0.07	72.92
California	Oakland	SBC		16.27	0.07	72.92
California	Salinas	SBC		16.27	0.07	72.92
California	San Bernadino	Verizon		31.24	0.08	100.07
California	San Diego	SBC		16.27	0.07	72.92
California	San Francisco	SBC		16.27	0.07	72.92
California	San Jose	SBC		16.27	0.07	72.92
Colorado	Boulder	Qwest	51.27	30.97	0.13	62.03
Colorado	Colorado Springs	Qwest	46.04	28.06	0.13	57.23
Colorado	Denver	Qwest	48.31	29.21	0.11	59.05
Connecticut	Ansonia	SBC	47.11	29.33	0.18	79.50
Connecticut	Norwalk	SBC	44.17	29.33	0.18	79.50
District of Columbia	Washington	Verizon		22.08	0.08	99.49
Florida	Miami	BellSouth	44.70	40.97	0.06	64.58
Florida	Tampa	Verizon	45.17	35.32	0.10	81.30
Florida	West Palm Beach	BellSouth	43.13	39.01	0.06	64.42
Georgia	Albany	BellSouth	46.47	39.55	0.12	58.25
Georgia	Atlanta	BellSouth	64.22			58.25
Hawaii	Honolulu	Verizon	51.52			53.91
Illinois	Chicago	SBC		12.88	0.10	58.42
Illinois	Decatur	SBC		20.46	0.10	57.98
Illinois	Rock Island	SBC		20.16	0.10	57.98
Indiana	Indianapolis	SBC	50.22	37.51	0.16	59.00
Indiana	Terre Haute	Verizon	41.47			71.40
Iowa	Fort Dodge	Frontier	29.78			21.81
Kentucky	Louisville	BellSouth	45.60			77.38
Louisiana	Baton Rouge	BellSouth	46.00	42.49	0.05	91.93
Louisiana	New Orleans	BellSouth	43.59	40.44	0.06	87.55
Maine	Portland	Verizon	46.38			60.48
Maryland	Baltimore	Verizon		24.52	0.09	115.29
Massachusetts	Boston	Verizon		26.22	0.12	100.46
Massachusetts	Hyannis	Verizon	55.13	26.22	0.12	100.46
Massachusetts	Springfield	Verizon		26.22	0.12	100.46
Michigan	Detroit	SBC		24.54	0.09	46.90
Michigan	Grand Rapids	SBC		22.86	0.09	44.78
Michigan	Saginaw	SBC		26.36	0.09	44.78
Minnesota	Detroit Lakes	Qwest	44.26	29.70	0.10	51.01
Minnesota	Minneapolis	Qwest	54.01	39.29	0.10	51.25
Mississippi	Pascagoula	BellSouth	50.71	43.33	0.09	71.69
Missouri	Kansas City	SBC	51.85	28.02	0.08	61.38
Missouri	Mexico	SBC	36.95	26.17	0.08	59.45
Missouri	St. Louis	SBC	51.34	28.67	0.08	62.56
Montana	Butte	Qwest	44.39	29.35	0.05	61.25
Nebraska	Grand Island	Qwest	40.06	29.41	0.10	51.28
New Jersey	Phillipsburg	Verizon		22.89	0.07	87.50

Table 1.10
Telephone Rates in the Sample Cities for a Business with a Single Line - Continued
(As of October 15, 2004)

State	City	Telephone Company	Monthly Telephone Rate Including Touch-Tone, Surcharges, and Taxes		Cost of a Five-Minute Same-Zone Daytime Call	Connection Charges Including Touch-Tone, Surcharges, and Taxes
			Flat-Rate Service	Measured/Message Service		
New Mexico	Alamogordo	Qwest	47.57	29.92	0.15	57.70
New York	Binghamton	Verizon		30.58	0.10	120.90
New York	Buffalo	Verizon		29.44	0.10	121.00
New York	Massena	Verizon		28.70	0.10	119.94
New York	New York City	Verizon		30.08	0.10	121.27
New York	Ogdensburg	Verizon		29.47	0.10	123.12
New York	Rochester	Frontier		20.39	0.09	54.96
North Carolina	Raleigh	BellSouth	53.63			68.90
North Carolina	Rockingham	BellSouth	44.17			68.90
Ohio	Canton	Ameritech		38.19	0.08	62.85
Ohio	Cincinnati	Cincinnati Bell	53.79	37.31	0.15	49.75
Ohio	Cleveland	SBC		33.71	0.08	62.85
Ohio	Columbus	SBC		33.33	0.08	62.85
Ohio	Toledo	SBC		35.69	0.08	62.85
Oregon	Corvallis	Qwest	37.49	28.51	0.15	33.79
Oregon	Portland	Qwest	37.48	28.50	0.15	33.79
Pennsylvania	Allentown	Verizon		33.06	0.07	81.75
Pennsylvania	Ellwood City	Verizon		35.79	0.07	81.75
Pennsylvania	Johnstown	Verizon		24.05	0.15	62.24
Pennsylvania	New Castle	Verizon		35.79	0.07	81.75
Pennsylvania	Philadelphia	Verizon		27.59	0.07	82.50
Pennsylvania	Pittsburgh	Verizon		27.59	0.07	82.50
Pennsylvania	Scranton	Verizon		33.06	0.07	81.75
Rhode Island	Providence	Verizon		31.01	0.02	49.07
South Carolina	Beaufort	Sprint	41.54	28.00	0.12	35.60
Tennessee	Memphis	BellSouth	56.40	42.15	0.12	67.64
Tennessee	Nashville	BellSouth	54.56	41.08	0.12	64.06
Texas	Brownsville	SBC	36.50	27.59	0.08	62.22
Texas	Corpus Christi	SBC	39.16	30.25	0.08	62.00
Texas	Dallas	SBC	51.97	40.54	0.08	62.22
Texas	Fort Worth	SBC	44.72	34.38	0.08	62.22
Texas	Houston	SBC	47.80	36.48	0.08	62.22
Texas	San Antonio	SBC	39.69	30.09	0.08	62.00
Utah	Logan	Qwest	30.09	27.11	0.08	55.78
Virginia	Richmond	Verizon	78.58	28.67	0.19	84.42
Virginia	Smithfield	Verizon	52.87	38.61	0.16	47.20
Washington	Everett	Verizon	43.83	29.94	0.02	75.85
Washington	Seattle	Qwest	40.18	30.32	0.07	55.55
West Virginia	Huntington	Verizon	65.32	33.29	0.16	82.97
Wisconsin	Milwaukee	SBC		23.94	0.09	68.27
Wisconsin	Racine	SBC		24.20	0.09	67.95

Table 1.11
Monthly Telephone Rates in the Sample Cities for a Business with a Single Line [1]
(As of October 15)

State	City	1994	1995	1996	1997	1998	1999	2000	2002	2003 [2]	2004 [3]
Alabama	Huntsville	$60.55	$56.15	$53.46	$50.90	$48.40	$45.97	$46.91	$48.97	$49.86	$49.59
Alaska	Anchorage	31.04	31.05	31.05	31.08	31.12	31.11	31.11	35.57	35.68	35.68
Arizona	Tucson	40.72	41.73	41.71	42.00	42.00	42.01	42.68	44.17	43.27	42.54
Arkansas	Pine Bluff	41.10	40.91	41.05	41.13	41.13	41.39	42.53	45.51	45.70	47.10
Arkansas	West Memphis	53.30	53.70	53.85	53.03	53.80	54.14	55.06	58.66	58.61	58.67
California	Anaheim	29.10	30.43	30.65	30.25	30.28	28.34	27.20	18.92	19.00	18.47
California	Bakersfield	29.15	31.06	31.29	30.64	30.92	28.23	27.20	18.92	17.72	18.28
California	Fresno	29.97	31.06	31.29	31.10	30.92	28.11	27.78	19.49	17.72	30.27
California	Long Beach	36.92	43.95	43.84	40.67	43.84	43.84	44.81	43.22	46.67	46.75
California	Los Angeles	31.38	33.36	33.60	31.75	33.16	30.24	30.55	18.92	17.72	30.27
California	Oakland	30.67	32.63	32.86	NA	32.45	29.58	29.24	18.92	17.72	30.27
California	Salinas	31.00	32.97	33.21	31.10	32.79	29.94	29.54	18.82	17.72	30.27
California	San Bernadino	36.41	43.35	43.25	43.29	43.25	43.25	44.20	43.20	47.43	47.24
California	San Diego	28.54	30.43	30.65	30.56	30.30	27.62	27.20	18.92	17.72	30.27
California	San Francisco	31.18	32.63	33.38	33.29	32.45	29.58	29.24	18.92	17.72	30.27
California	San Jose	29.96	31.90	32.13	32.02	31.33	28.93	28.56	18.92	17.72	30.27
Colorado	Boulder	46.88	47.16	47.15	47.03	46.94	45.52	46.25	51.01	51.75	51.27
Colorado	Colorado Springs	44.27	43.82	44.42	44.42	44.40	42.87	43.51	45.89	46.41	46.04
Colorado	Denver	46.69	46.68	46.65	46.59	46.57	45.22	45.89	48.48	49.00	48.31
Connecticut	Ansonia	40.76	43.70	43.70	43.70	43.65	44.39	45.67	47.38	47.30	47.11
Connecticut	Norwalk	37.91	40.86	40.86	40.86	40.70	41.46	42.72	44.47	44.36	44.17
District of Columbia	Washington	35.32	33.37	39.17	37.84	34.85	35.81	36.34	36.18	39.16	39.08
Florida	Miami	40.65	40.65	40.67	40.13	37.40	40.64	41.63	43.86	44.75	44.70
Florida	Tampa	37.66	37.87	41.09	41.09	41.18	41.18	42.21	44.98	45.39	45.17
Florida	West Palm Beach	39.47	37.39	38.13	38.67	40.66	37.38	38.60	41.76	42.57	43.13
Georgia	Albany	39.74	39.74	41.00	41.00	41.15	41.70	42.98	45.16	46.80	46.47
Georgia	Atlanta	53.64	58.82	58.87	58.87	58.81	58.81	60.25	62.60	64.84	64.22
Hawaii	Honolulu	42.74	44.39	46.09	47.32	47.32	47.32	48.20	49.63	51.85	51.52
Illinois	Chicago	34.12	32.12	31.91	31.91	33.74	35.12	36.12	33.08	33.23	32.88
Illinois	Decatur	38.01	35.96	35.71	35.15	40.17	42.49	43.49	40.50	20.81	40.46
Illinois	Rock Island	38.64	36.58	36.58	35.77	40.79	42.02	43.08	40.24	40.51	40.16
Indiana	Indianapolis	57.46	56.78	55.84	55.84	55.84	56.07	57.27	59.03	54.51	50.22
Indiana	Terre Haute	47.07	47.07	47.03	47.03	43.91	43.91	37.99	41.96	41.46	41.47
Iowa	Fort Dodge	22.44	22.44	22.44	22.44	25.95	25.34	26.26	28.81	29.25	29.78
Kentucky	Louisville	60.96	61.01	55.87	56.84	45.27	45.33	48.75	45.12	45.80	45.60
Louisiana	Baton Rouge	48.55	49.50	47.76	46.12	45.40	41.53	42.43	45.72	47.26	46.00
Louisiana	New Orleans	50.21	50.21	46.30	46.34	45.64	41.30	42.22	43.31	43.96	43.59
Maine	Portland	40.54	38.63	38.82	39.75	41.33	43.06	43.78	48.37	49.12	46.38
Maryland	Baltimore	43.57	43.57	43.57	43.60	43.16	43.12	44.14	41.28	42.69	42.52
Massachusetts	Boston	43.22	42.78	42.78	42.78	42.78	42.78	42.99	42.67	47.00	50.22
Massachusetts	Hyannis	46.92	46.92	46.92	48.38	48.38	48.38	47.72	42.67	47.00	55.13
Massachusetts	Springfield	43.22	38.89	38.89	38.89	38.89	38.89	39.31	42.67	47.00	50.22
Michigan	Detroit	37.02	37.81	40.89	40.89	38.32	40.68	43.28	42.49	42.46	42.54
Michigan	Grand Rapids	35.29	36.02	35.81	35.88	36.66	37.57	39.97	41.18	41.12	40.86
Michigan	Saginaw	35.11	36.59	37.95	39.14	37.46	38.35	40.71	44.92	44.61	44.36
Minnesota	Detroit Lakes	42.35	42.41	42.41	42.28	42.28	42.29	43.22	44.97	44.98	44.26
Minnesota	Minneapolis	54.91	54.98	54.98	54.85	54.85	52.05	52.99	54.71	54.72	54.01
Mississippi	Pascagoula	57.33	57.33	57.41	56.16	55.88	55.88	54.51	50.20	50.85	50.71
Missouri	Kansas City	46.02	45.57	45.57	45.15	45.15	45.34	46.37	49.29	48.48	51.85
Missouri	Mexico	32.28	36.13	36.13	36.29	36.29	36.29	37.64	37.10	37.46	36.95
Missouri	St. Louis	46.02	45.15	45.15	45.10	45.10	45.40	46.64	49.81	49.90	51.34
Montana	Butte	43.82	43.82	43.82	44.07	45.36	42.29	41.84	44.62	44.91	44.39
Nebraska	Grand Island	47.87	47.84	47.79	47.79	47.57	49.51	44.78	40.91	40.65	40.06
New Jersey	Phillipsburg	27.58	27.58	26.65	26.51	27.86	27.86	28.79	30.48	30.85	31.64

Table 1.11
Monthly Telephone Rates in the Sample Cities for a Business with a Single Line - Continued [1]
(As of October 15)

State	City	1994	1995	1996	1997	1998	1999	2000	2002	2003 [2]	2004 [3]
New Mexico	Alamogordo	55.84	56.03	56.20	56.37	56.37	50.20	44.55	47.53	48.03	47.57
New York	Binghamton	51.24	49.77	49.68	48.07	45.44	48.03	47.91	48.56	49.01	50.58
New York	Buffalo	50.80	50.58	50.49	49.12	49.08	48.82	48.69	48.06	49.51	49.44
New York	Massena	49.67	49.46	49.37	49.09	49.05	47.74	47.61	45.57	48.84	48.70
New York	New York	51.13	50.92	50.73	50.07	48.03	49.05	48.91	48.56	50.22	50.08
New York	Ogdensburg	51.07	50.85	50.76	49.78	47.74	49.08	48.95	48.31	49.62	49.47
New York	Rochester	49.84	48.28	48.28	48.86	48.82	44.30	44.77	38.59	38.62	38.59
North Carolina	Raleigh	41.76	41.53	40.74	39.94	39.96	39.96	40.86	42.59	45.16	53.63
North Carolina	Rockingham	36.42	36.11	35.32	34.52	34.52	34.52	36.08	41.31	44.23	44.17
Ohio	Canton	44.48	44.22	44.22	44.22	43.11	43.96	44.84	46.31	46.53	48.35
Ohio	Cincinnati	53.19	52.99	52.99	51.88	51.37	51.73	55.48	53.94	54.16	53.79
Ohio	Cleveland	44.48	43.19	42.16	43.38	40.23	40.20	40.20	41.71	41.79	43.87
Ohio	Columbus	44.48	43.19	42.16	42.16	40.23	40.20	40.20	41.68	41.79	43.49
Ohio	Toledo	44.48	44.22	44.22	42.16	42.29	41.23	42.11	43.74	43.85	45.85
Oregon	Corvallis	39.69	36.99	39.56	39.58	39.83	39.97	38.11	39.55	37.86	37.49
Oregon	Portland	46.18	42.79	42.29	42.04	42.00	42.00	42.88	41.86	38.85	37.48
Pennsylvania	Allentown	35.98	37.34	37.34	36.53	37.26	37.26	38.15	45.34	47.21	47.06
Pennsylvania	Ellwood City	36.52	36.52	38.81	39.99	39.99	39.99	40.88	47.92	49.94	49.79
Pennsylvania	Johnstown	37.70	37.37	37.72	37.26	40.01	40.01	40.94	32.69	38.31	38.05
Pennsylvania	New Castle	38.81	38.81	38.81	38.53	39.99	39.99	40.88	47.92	31.41	49.79
Pennsylvania	Philadelphia	30.63	30.63	28.55	29.99	31.53	31.53	32.42	39.94	41.49	41.59
Pennsylvania	Pittsburgh	30.63	31.72	31.72	31.72	31.53	34.26	35.15	39.94	41.75	41.59
Pennsylvania	Scranton	35.98	35.98	37.34	37.26	37.26	37.26	38.15	45.34	47.21	47.06
Rhode Island	Providence	48.44	48.44	47.82	47.82	47.16	70.51	71.44	70.03	35.17	35.01
South Carolina	Beaufort	38.69	38.04	38.04	38.04	38.69	38.69	39.60	42.30	42.19	41.54
Tennessee	Memphis	54.70	54.70	54.95	54.95	54.95	54.69	55.71	55.12	55.77	56.40
Tennessee	Nashville	52.35	52.35	52.35	52.35	53.77	53.52	54.47	53.58	54.77	54.56
Texas	Brownsville	29.23	31.23	31.23	33.82	35.26	31.44	33.83	36.37	35.94	36.50
Texas	Corpus Christi	31.90	31.82	31.85	31.01	30.95	29.92	31.16	37.96	39.23	39.16
Texas	Dallas	38.66	38.65	38.49	33.35	34.54	38.59	39.11	45.70	50.01	51.97
Texas	Fort Worth	34.44	34.50	34.27	37.51	38.81	34.83	37.25	38.47	42.69	44.72
Texas	Houston	41.27	41.37	40.35	39.48	42.85	42.85	39.87	49.45	47.76	47.80
Texas	San Antonio	34.19	34.14	33.86	30.95	30.95	31.56	33.12	39.00	39.81	39.69
Utah	Logan	31.88	31.93	30.22	30.14	28.46	27.82	29.56	32.12	31.37	30.09
Virginia	Richmond	75.06	75.06	72.53	72.53	NA	74.56	77.97	78.63	78.74	78.58
Virginia	Smithfield	30.08	30.08	30.08	29.98	29.98	29.98	30.94	50.23	52.89	52.87
Washington	Everett	39.98	39.98	39.98	39.98	39.98	41.37	42.31	43.98	44.05	43.83
Washington	Seattle	37.03	37.03	37.03	37.19	36.47	36.47	37.42	40.82	40.92	40.18
West Virginia	Huntington	73.39	73.39	75.05	73.03	72.02	72.02	67.31	60.60	60.90	65.32
Wisconsin	Milwaukee	37.48	37.48	37.51	39.69	39.69	40.80	41.15	41.04	40.84	41.94
Wisconsin	Racine	39.40	39.12	39.16	39.53	39.52	40.63	40.97	41.91	40.82	42.20

[1] Rates are based upon flat-rate service where available and measured/message service with 200 five-minute, same-zone, business day calls.

[2] Revised.

[3] Subject to revision.

Table 1.12
Connection Charges for a Single Business Line in the Sample Cities [1]
(As of October 15)

State	City	1994	1995	1996	1997	1998	1999	2001	2002	2003 [2]	2004 [3]
Alabama	Huntsville	$73.62	$73.62	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	69.00
Alaska	Anchorage	30.75	30.75	30.75	30.75	53.00	53.00	53.00	65.70	65.70	56.50
Arizona	Tucson	62.31	62.47	58.91	58.91	58.91	60.03	61.48	53.80	47.30	47.30
Arkansas	Pine Bluff	93.44	92.94	93.27	93.19	93.22	93.43	93.43	93.43	93.43	93.43
Arkansas	West Memphis	93.60	94.24	94.51	94.61	94.30	94.55	94.55	94.55	94.55	94.55
California	Anaheim	69.87	71.64	72.23	73.16	71.10	71.10	66.10	72.92	72.92	72.92
California	Bakersfield	69.87	71.64	72.23	73.16	71.10	69.80	66.10	72.92	72.92	72.92
California	Fresno	69.87	71.64	72.23	73.16	71.10	69.80	66.10	72.92	72.92	72.83
California	Long Beach	80.20	84.33	92.51	92.51	92.51	92.51	92.40	93.30	101.34	101.34
California	Los Angeles	69.87	71.64	72.23	73.16	71.10	69.80	66.10	73.93	73.93	72.92
California	Oakland	69.87	71.64	72.23	73.16	71.10	69.80	66.10	72.92	72.92	72.92
California	Salinas	69.87	71.64	72.23	73.16	71.10	69.80	66.10	72.92	72.92	72.92
California	San Bernadino	80.20	84.33	91.25	91.25	91.25	91.25	91.13	92.03	100.07	100.07
California	San Diego	69.87	71.64	72.23	73.16	71.10	69.80	66.10	72.92	72.92	72.92
California	San Francisco	69.87	71.64	72.23	73.16	71.10	69.80	66.10	72.92	72.92	72.92
California	San Jose	69.87	71.64	72.23	73.16	71.10	69.80	66.10	72.92	72.92	72.92
Colorado	Boulder	74.84	74.91	75.08	75.08	75.08	60.94	59.54	61.94	61.94	62.03
Colorado	Colorado Springs	72.80	72.80	72.80	72.80	72.80	58.97	57.67	56.11	57.23	57.23
Colorado	Denver	75.11	75.11	75.11	75.11	75.11	60.84	59.45	59.05	59.05	59.05
Connecticut	Ansonia	68.90	68.90	68.90	68.90	68.90	68.90	68.90	79.50	79.50	79.50
Connecticut	Norwalk	68.90	68.90	68.90	68.90	68.90	68.90	68.90	79.50	79.50	79.50
District of Columbia	Washington	66.03	66.03	83.25	83.25	83.25	83.25	83.25	83.25	99.49	99.49
Florida	Miami	59.92	60.20	60.20	60.20	59.92	60.20	64.45	64.23	64.58	64.58
Florida	Tampa	78.89	78.89	74.07	74.07	74.07	74.07	74.07	74.07	81.30	81.30
Florida	West Palm Beach	59.92	59.92	59.92	59.92	60.20	59.92	64.39	64.18	64.42	64.42
Georgia	Albany	52.25	52.25	52.25	58.25	58.25	58.25	58.25	58.25	58.25	58.25
Georgia	Atlanta	52.25	52.25	52.25	58.25	58.25	58.25	58.25	58.25	58.25	58.25
Hawaii	Honolulu	47.50	47.50	51.47	52.97	52.97	54.97	49.61	44.61	53.91	53.91
Illinois	Chicago	93.03	57.64	57.64	57.64	57.64	59.99	58.42	58.42	58.42	58.42
Illinois	Decatur	93.17	57.72	57.72	57.72	57.72	59.55	57.98	57.98	57.98	57.98
Illinois	Rock Island	93.17	57.72	57.72	57.72	57.72	59.55	57.98	57.98	57.98	57.98
Indiana	Indianapolis	59.00	59.00	59.00	59.00	59.00	59.00	59.00	59.00	59.00	59.00
Indiana	Terre Haute	68.78	68.78	68.78	68.78	68.78	68.78	68.78	68.78	71.40	71.40
Iowa	Fort Dodge	15.65	15.65	15.65	15.65	22.22	21.60	21.57	21.57	21.51	21.81
Kentucky	Louisville	47.50	47.50	73.00	73.00	73.00	73.00	77.38	77.38	77.38	77.38
Louisiana	Baton Rouge	88.06	87.55	87.55	87.55	87.55	87.55	91.80	87.55	91.93	91.93
Louisiana	New Orleans	87.55	87.55	87.55	87.55	87.55	87.55	87.55	87.55	87.55	87.55
Maine	Portland	59.36	59.36	59.36	59.36	59.08	59.08	58.80	58.80	60.48	60.48
Maryland	Baltimore	98.50	98.50	98.50	98.50	87.00	87.00	87.00	87.00	115.29	115.29
Massachusetts	Boston	97.67	97.67	97.67	97.67	97.67	97.67	97.67	97.67	100.46	100.46
Massachusetts	Hyannis	97.67	97.67	97.67	97.67	97.67	97.67	97.67	97.67	100.46	100.46
Massachusetts	Springfield	97.67	97.67	97.67	97.67	97.67	97.67	97.67	97.67	100.46	100.46
Michigan	Detroit	44.52	44.52	44.52	44.52	44.52	46.62	46.62	46.62	46.62	46.90
Michigan	Grand Rapids	43.68	44.52	44.52	44.52	44.52	44.52	44.52	44.52	44.52	44.78
Michigan	Saginaw	44.52	44.52	44.52	44.52	44.52	44.52	44.52	44.52	44.52	44.78
Minnesota	Detroit Lakes	49.50	49.50	47.93	51.01	51.01	51.01	51.01	51.01	51.01	51.01
Minnesota	Minneapolis	49.50	49.50	48.15	51.25	51.25	51.25	51.25	51.25	51.25	51.25
Mississippi	Pascagoula	71.69	71.69	71.69	71.69	71.69	71.69	71.69	71.69	71.69	71.69
Missouri	Kansas City	70.78	61.44	61.44	61.50	61.63	61.13	59.69	60.37	60.83	61.38
Missouri	Mexico	68.55	59.70	59.70	59.96	60.80	59.96	59.41	58.96	59.49	59.45
Missouri	St. Louis	70.78	61.63	61.63	61.63	59.96	61.98	61.46	62.13	62.59	62.56
Montana	Butte	61.40	61.40	61.40	61.40	61.40	61.40	61.25	61.25	61.25	61.25
Nebraska	Grand Island	49.05	49.05	49.13	49.13	49.13	51.02	50.83	51.05	51.05	51.28
New Jersey	Phillipsburg	79.50	79.50	80.27	80.27	80.27	80.27	85.09	85.09	87.50	87.50

Table 1.12
Connection Charges for a Single Business Line in the Sample Cities - Continued [1]
(As of October 15)

State	City	1994	1995	1996	1997	1998	1999	2001	2002	2003 [2]	2004 [3]
New Mexico	Alamogordo	57.46	57.47	57.29	57.29	57.29	57.29	57.53	57.57	57.57	57.70
New York	Binghamton	120.48	120.92	120.68	120.46	122.51	120.34	118.64	117.72	120.90	120.90
New York	Buffalo	123.65	123.08	122.85	122.62	123.00	122.51	120.64	117.82	121.00	121.00
New York	Massena	120.77	120.20	119.98	119.75	123.10	119.64	128.76	116.76	119.94	119.94
New York	New York	124.53	123.95	123.45	123.22	120.34	123.10	120.45	118.09	121.27	121.27
New York	Ogdensburg	124.17	123.58	123.35	123.12	119.64	123.00	121.15	119.94	123.12	123.12
New York	Rochester	57.16	55.56	55.56	55.56	57.27	57.27	56.48	54.96	54.96	54.96
North Carolina	Raleigh	64.38	64.38	64.38	66.95	66.95	66.95	66.95	68.90	68.90	68.90
North Carolina	Rockingham	64.38	64.38	64.38	66.95	66.95	66.95	66.95	68.90	68.90	68.90
Ohio	Canton	72.15	62.85	62.85	62.85	62.85	62.85	62.85	62.85	62.85	62.85
Ohio	Cincinnati	55.78	55.78	55.78	55.78	49.75	49.75	49.75	49.75	49.75	49.75
Ohio	Cleveland	72.15	62.85	62.85	62.85	62.85	62.85	62.85	62.85	62.85	62.85
Ohio	Columbus	72.15	62.85	62.85	62.85	62.85	62.85	62.85	62.85	62.85	62.85
Ohio	Toledo	72.15	62.85	62.85	62.85	62.85	62.85	62.85	62.85	62.85	62.85
Oregon	Corvallis	31.00	31.00	31.93	31.93	31.93	31.93	32.86	33.60	33.64	33.79
Oregon	Portland	31.00	31.00	31.00	31.93	31.93	31.93	32.86	33.64	33.64	33.79
Pennsylvania	Allentown	79.50	79.50	79.50	79.50	79.50	79.50	79.50	79.50	81.75	81.75
Pennsylvania	Ellwood City	79.50	79.50	79.50	79.50	79.50	79.50	79.50	79.50	81.75	81.75
Pennsylvania	Johnstown	60.44	60.44	60.44	60.44	60.44	60.44	60.44	78.43	62.24	62.24
Pennsylvania	New Castle	79.50	79.50	79.50	79.50	79.50	79.50	79.50	79.50	81.75	81.75
Pennsylvania	Philadelphia	79.50	79.50	79.50	79.50	79.50	79.50	79.50	79.50	82.50	82.50
Pennsylvania	Pittsburgh	79.50	79.50	79.50	79.50	79.50	79.50	79.50	79.50	82.50	82.50
Pennsylvania	Scranton	79.50	79.50	79.50	79.50	79.50	79.50	79.50	79.50	81.75	81.75
Rhode Island	Providence	46.50	46.50	46.50	46.50	47.73	47.73	47.73	47.73	49.12	49.07
South Carolina	Beaufort	35.60	35.60	35.60	35.60	35.60	35.60	35.60	35.60	35.60	35.60
Tennessee	Memphis	66.80	66.80	67.12	67.12	63.62	66.82	66.65	67.33	67.64	67.64
Tennessee	Nashville	63.62	63.62	63.62	63.62	68.37	63.33	63.33	63.47	64.06	64.06
Texas	Brownsville	64.57	69.00	69.00	68.99	69.45	69.45	69.45	62.22	62.22	62.22
Texas	Corpus Christi	69.45	69.29	69.34	70.72	64.27	64.35	64.35	62.00	62.00	62.00
Texas	Dallas	70.91	70.91	70.61	68.82	64.57	70.80	70.80	62.22	62.22	62.22
Texas	Fort Worth	70.09	70.21	69.75	67.87	70.28	70.87	70.87	62.22	62.22	62.22
Texas	Houston	70.89	70.93	69.18	70.32	71.20	64.57	64.57	62.22	62.22	62.22
Texas	San Antonio	69.45	69.34	68.78	68.78	70.72	64.27	64.27	62.00	62.00	62.00
Utah	Logan	53.06	53.06	53.06	53.00	53.00	53.66	53.30	53.36	53.36	55.78
Virginia	Richmond	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	84.42	84.42
Virginia	Smithfield	29.25	29.25	29.25	29.25	29.25	40.00	40.00	40.00	47.20	47.20
Washington	Everett	57.19	57.19	70.67	70.67	70.67	70.67	70.67	70.67	75.85	75.85
Washington	Seattle	55.25	55.25	55.25	55.45	55.45	55.45	55.29	55.55	55.55	55.55
West Virginia	Huntington	96.90	96.90	96.90	96.90	79.00	79.00	79.00	79.00	82.97	82.97
Wisconsin	Milwaukee	68.21	68.21	68.27	68.27	67.95	68.27	68.27	68.27	68.27	68.27
Wisconsin	Racine	68.21	67.88	67.95	67.95	72.60	67.95	67.95	67.95	67.95	67.95

[1] Charges include touch-tone charges, surcharges, and taxes.

[2] Revised figures.

[3] Subject to revisision.

Table 1.13
Standard Deviation Analysis of Residential Rates in the Sample Cities
(as of October 15, 2004)

a.	Maximum Charge	$34.47
b.	Minimum Charge	$16.05
c.	Representative Monthly Charge (Weighted Average)	$24.31
d.	Weighted Standard Deviation (Std Dev)	$4.95
e.	**Average + 2*(Std Dev) (= c + 2d)**	**$34.21**
f.	Percent to Average (= [e/c] * 100)	141%

Table 1.14
Historical Standard Deviation Analysis of Residential Rates in the Sample Cities
(As of October 15)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 [1]	2004 [2]
Maximum Rate	$32.68	$31.63	$30.62	$28.65	$28.78	$28.27	$28.75	$29.72	$34.75	$34.95	$35.56	$34.47
Minimum Rate	$12.18	$12.18	$13.04	$13.04	$13.05	$13.05	$13.05	$13.21	$15.31	$15.93	$16.30	$16.05
Representative Monthly Rate (Average)	$19.95	$19.81	$20.01	$19.95	$19.88	$19.76	$19.93	$20.78	$22.62	$24.07	$24.65	$24.31
Weighted Standard Deviation (Std Dev)	$4.23	$4.28	$3.41	$3.28	$3.35	$3.24	$3.46	$3.57	$4.20	$4.32	$4.90	$4.95
Average + 2*(Std Dev)	**$28.41**	**$28.38**	**$26.84**	**$26.51**	**$26.58**	**$26.24**	**$26.85**	**$27.92**	**$31.01**	**$32.71**	**$34.45**	**$34.21**
Percentage to Average	**142%**	**143%**	**134%**	**133%**	**134%**	**133%**	**135%**	**134%**	**137%**	**136%**	**140%**	**141%**
Average + 3*(Std Dev)	***$32.65***	***$32.66***	***$30.25***	***$29.78***	***$29.93***	***$29.47***	***$30.31***	***$31.49***	***$35.21***	***$37.03***	***$39.35***	***$39.16***
Percentage to Average	***164%***	***165%***	***151%***	***149%***	***151%***	***149%***	***152%***	***152%***	***156%***	***154%***	***160%***	***161%***

[1] Revised figures.

[2] Subject to revision.

Table 1.15
Average Revenue per Minute for Interstate Toll Service Calls

Year	Revenue per Minute
1992	$0.15
1993	0.15
1994	0.14
1995	0.12
1996	0.12
1997	0.11
1998	0.11
1999	0.11
2000	0.09
2001	0.08
2002	0.07
2003	0.07

Source: Industry Analysis and Technology Division of the Wireline Competition Bureau
Telecommunications Industry Revenues (March 2005).

II. Expenditures on Telephone Service

A. Residential Expenditures

The Bureau of Labor Statistics (BLS) conducts surveys of consumer expenditures, in part, to develop weights for the consumer price indices. The surveys collect income, expenditure, and demographic information for "consumer units." Consumer units are often referred to as households, but the definition is not identical to households, as defined by the Census Bureau.[1] For instance, there were approximately 110 million consumer units in 2001, compared with approximately 107.7 million households. BLS uses two types of surveys: diary surveys, where household members record most types of purchases for a few weeks; and interview surveys, where households are interviewed to determine their expenditures for the prior three months. Households selected for the interview survey are interviewed in five successive quarters. Tables 2.1 through 2.5 present the annual average total expenditures and telephone expenditures by various demographic classifications.

Prior to 1984, BLS published separate expenditure estimates based on the diary and the interview surveys. At that time, telephone expenditures were collected only through the interview surveys, and average levels of telephone expenditures were published only in the interview summaries. BLS began publishing integrated estimates in 1984, combining information from both types of surveys.

Expenditure data were not collected for rural households for 1980 through 1983. Nationwide expenditure data are available for 1984 through 2002. According to BLS, more than 85 percent of households are in urban areas, and the estimates of telephone expenditures by urban households are similar to estimates for nationwide average telephone expenditures. Nonetheless, 1980 through 1983 data are not completely comparable with subsequent data.

Several changes in the telephone industry make it difficult to interpret changes in the BLS estimates of household expenditures for telephone service. Prior to 1983, most residential telephones were leased from local exchange carriers. As a consequence of the FCC's Computer Inquiry II proceeding, telephone sets were detariffed on January 1, 1984. Existing tariffed equipment became known as "embedded rate base" and much of this equipment was sold "in place" to consumers. Significant amounts of equipment purchases were included on local telephone bills in 1983 and 1984. Telephone bills have not included significant amounts of equipment sales since that time. The remaining Bell System embedded rate base was transferred to AT&T in 1984, but the lease payments were included in local telephone bills into 1987.

The BLS has changed the consumer expenditure survey questionnaires to reflect changes in the equipment market. Beginning in 1982, the survey specifically included telephones and accessories in its list of home furnishings and related household items. Amounts appearing on the telephone bills, however, were included as telephone service until 1986. Thus, the 1983 and 1984 estimates include the sale of the embedded base. The current questionnaire separates equipment sales from other items that appear on telephone bills. The questionnaire does not specifically address payments for leasing telephone equipment, commonly known as customer premises equipment (CPE). CPE lease payments may still be reported as telephone service expenditures.

[1] We also refer to consumer units as "households."

The consumer expenditure survey continues to classify payments for inside wiring maintenance as part of telephone service. This probably accounts for between $10 to $20 of average annual household telephone expenditures. Beginning in 1991, consumers have been asked to separately identify cellular telephone payments. The BLS has not yet published a separate estimate for cellular telephone expenditures, but instead continues to include these with other telephone expenditures.

Table 2.6 presents estimates of annual household telecommunications expenditure by the type of service provider. This table is derived from Bill Harvesting® data collected by TNS Telecoms, which provides information on actual usage in the residential telecom market as collected from the actual telecommunications bills of households. TNS Telecoms, a telecommunications market information firm, conducts nationwide surveys and Bill Harvesting® on a quarterly basis from over 120,000 households each year. The company has donated databases to the Commission containing information on residential phone usage.

B. Business Expenditures

One of the few sources of information on expenditures for telecommunications services by businesses is contained in the input-output (I-O) accounts of the U.S. economy. The accounts are created by the Bureau of Economic Analysis from the economic censuses conducted every five years by the Bureau of the Census. The accounts are generally released about five years after the economic censuses. The accounts show the production of commodities (goods and services) by each industry, the use of commodities by each industry, the commodity composition of gross domestic product, and the industry distribution of value added.

Table 2.7 shows the most recent I-O account of the use of communications by U.S. industry. Table 2.8 presents the most recent account of the commodities used by the U.S. communications industry.

C. Additional Sources of Information on Expenditures for Telephone Service

Additional information from the *Consumer Expenditure Survey* is available from the Bureau of Labor Statistics at www.bls.gov/cex/.

TNS Telecoms has donated databases containing information on residential phone usage collected from actual consumer telecommunications bills to the Commission. TNS Telecoms has granted the Commission permission to use these databases for industry research purposes and to publish the industry level results. TNS Telecoms has been monitoring the telecommunications market since 1995 through both the ReQuest® consumer survey and Bill Harvesting® in the residential market and the BusinessWave® business survey in the business market. Table 2.6 comes from these databases. For additional information visit www.tnstelecoms.com or contact them at 1-866-811-TNST or by e- mail at contact@tnstelecoms.com. Their address is 101 Greenwood Ave, Suite 502, Jenkintown, PA 19046.

Additional information on the input-output accounts of the U.S. economy is available from the Bureau of Economic Analysis at www.bea.doc.gov on the Internet.

Concordance between I-O industry codes and 1987 standard industrial classification (SIC) codes can be found in Appendix A of Benchmark Input-Output Accounts for the U.S. Economy, 1997 in *Survey of Current Business*, November, 1997. The U.S. Census Bureau has since replaced the SIC codes with the North American Industry Classification System (NAICS). Information concerning the conversion from 1987 SIC codes to NAICS can be found at www.census.gov/epcd/naics02/.

The Bureau of the Census publishes the *Service Annual Survey* that also provides some estimates of household and business expenditures on telephone service. This information can be found at www.census.gov on the Internet.

Table 2.1
Average Annual Household Expenditures
by Household Location

	All Households	Urban Households	Rural Households	Census Region			
				Northeast	Midwest	South	West
Total Household Expenditures							
1980	$16,723	$16,723		$17,222	$16,024	$16,188	$17,962
1981	17,558	17,558		17,053	17,324	17,086	19,275
1982	18,071	18,071		16,980	18,143	17,820	19,710
1983	19,692	19,692		19,077	19,580	19,074	21,538
1984	21,975	22,729	$18,217	21,593	21,167	21,587	24,238
1985	23,490	24,129	20,257	22,808	22,664	23,180	25,961
1986	23,866	24,571	19,677	24,905	22,706	22,545	26,476
1987	24,414	25,063	20,513	25,079	23,021	23,292	27,309
1988	25,892	26,617	21,380	26,348	24,753	24,671	28,830
1989	27,809	28,584	23,106	28,241	26,062	26,232	32,144
1990	28,369	28,989	24,499	28,369	25,919	27,011	32,445
1991	29,614	30,382	24,785	31,026	27,675	28,062	33,131
1992	29,846	30,569	25,347	31,177	28,445	27,750	33,647
1993	30,692	31,431	26,296	31,634	28,884	29,247	34,348
1994	31,731	32,233	28,668	32,549	30,331	30,072	35,318
1995	32,264	33,101	27,160	33,009	31,909	30,289	35,206
1996	33,797	34,502	28,853	34,163	33,025	32,871	35,795
1997	34,819	35,614	29,353	36,070	33,791	32,226	39,037
1998	35,535	36,349	29,813	37,535	34,513	32,958	38,938
1999	37,027	37,905	30,831	38,446	36,337	33,328	42,364
2000	38,045	38,942	31,831	38,902	39,213	34,707	41,328
2001	39,518	40,355	33,681	41,169	39,548	36,285	43,261
2002	40,677	41,600	34,067	42,390	40,601	37,281	44,728
2003	40,817	41,619	35,157	42,162	40,280	37,625	45,381
Household Expenditure for Telephone Service							
1980	$325	$325		$335	$303	$339	$320
1981	360	360		358	353	365	366
1982	375	375		351	364	372	426
1983	415	415		410	393	435	419
1984	435	450	359	433	407	445	458
1985	455	466	402	459	419	457	500
1986	471	478	425	470	444	477	494
1987	499	503	475	501	464	505	532
1988	537	544	493	524	498	545	585
1989	567	577	505	570	532	572	601
1990	592	599	549	589	547	616	611
1991	618	621	601	621	595	616	647
1992	623	629	580	636	589	624	646
1993	658	666	606	677	616	673	664
1994	690	698	642	700	663	690	713
1995	708	720	633	717	706	714	691
1996	772	779	726	763	753	796	764
1997	809	814	773	785	778	839	817
1998	830	834	801	814	801	858	828
1999	849	854	812	846	858	862	822
2000	877	889	790	856	884	891	864
2001	914	927	825	897	914	924	914
2002	957	972	851	952	934	987	936
2003	956	967	875	932	917	1,002	941
Expenditures on Telephone Service as a Percentage of Total Household Expenditures							
1980	1.94%	1.94%		1.95%	1.89%	2.09%	1.78%
1981	2.05	2.05		2.10	2.04	2.14	1.90
1982	2.08	2.08		2.07	2.01	2.09	2.16
1983	2.11	2.11		2.15	2.01	2.28	1.95
1984	1.98	1.98	1.97%	2.01	1.92	2.06	1.89
1985	1.94	1.93	1.98	2.01	1.85	1.97	1.93
1986	1.97	1.95	2.16	1.89	1.96	2.12	1.87
1987	2.04	2.01	2.32	2.02	2.02	2.17	1.95
1988	2.07	2.04	2.31	1.99	2.01	2.21	2.03
1989	2.04	2.02	2.19	2.02	2.04	2.18	1.87
1990	2.09	2.07	2.24	2.08	2.11	2.28	1.88
1991	2.09	2.04	2.42	2.01	2.15	2.20	1.95
1992	2.09	2.06	2.29	2.04	2.07	2.25	1.92
1993	2.14	2.12	2.30	2.14	2.13	2.30	1.93
1994	2.17	2.16	2.24	2.15	2.18	2.30	2.02
1995	2.19	2.18	2.33	2.17	2.21	2.36	1.96
1996	2.28	2.26	2.52	2.23	2.28	2.28	2.13
1997	2.32	2.26	2.77	2.18	2.30	2.60	2.09
1998	2.34	2.29	2.69	2.17	2.32	2.60	2.13
1999	2.29	2.25	2.63	2.20	2.36	2.59	1.94
2000	2.31	2.28	2.48	2.20	2.25	2.57	2.09
2001	2.31	2.30	2.45	2.18	2.31	2.55	2.11
2002	2.35	2.34	2.50	2.25	2.30	2.65	2.09
2003	2.34	2.32	2.49	2.21	2.28	2.66	2.07

Table 2.2
Average Annual Household Expenditures
by Race and National Origin

	By Race		By National Origin	
	White & Other	Black	Hispanic	Non-Hispanic
1980	$17,335	$12,016		
1981	18,169	12,856		
1982	18,693	13,229		
1983	20,567	12,878		
1984	22,847	14,631		
1985	24,399	15,979		
1986	24,806	16,203		
1987	25,376	16,324		
1988	27,004	16,670		
1989	28,944	18,343		
1990	29,547	19,130		
1991	30,794	20,091		
1992	31,158	19,695		
1993	31,967	20,684		
1994	32,614	22,413	$26,433	$32,165
1995	33,737	23,739	26,744	32,729
1996	34,994	24,926	27,868	34,338
1997	36,076	25,509	29,333	35,325
1998	36,848	25,796	30,013	36,044
1999	38,354	27,374	33,105	37,385
2000	39,406	28,152	32,735	38,549
2001	40,968	28,903	34,361	40,009
2002	42,135	30,136	34,742	41,295
2003	42,451	28,708	34,575	41,521
Household Expenditure for Telephone Service				
1980	$321	$356		
1981	359	370		
1982	368	432		
1983	411	448		
1984	432	462		
1985	454	463		
1986	470	478		
1987	498	506		
1988	537	536		
1989	563	603		
1990	588	624		
1991	613	657		
1992	619	647		
1993	650	719		
1994	681	756	$793	$681
1995	698	782	796	700
1996	757	887	870	763
1997	791	945	833	807
1998	818	915	811	831
1999	837	934	872	847
2000	862	986	889	876
2001	899	1,024	917	914
2002	944	1,050	1,021	950
2003	946	1,027	968	954
Expenditures on Telephone Service as Percentage of Total Household Expenditures				
1980	1.85%	2.96%		
1981	1.98	2.88		
1982	1.97	3.27		
1983	2.00	3.48		
1984	1.89	3.16		
1985	1.86	2.90		
1986	1.89	2.95		
1987	1.96	3.10		
1988	1.99	3.22		
1989	1.95	3.29		
1990	1.99	3.26		
1991	1.99	3.27		
1992	1.99	3.29		
1993	2.03	3.48		
1994	2.07	3.37	3.00%	2.12%
1995	2.09	3.29	2.98	2.14
1996	2.16	3.56	3.12	2.22
1997	2.19	3.70	2.84	2.28
1998	2.22	3.55	2.70	2.31
1999	2.18	3.41	2.63	2.27
2000	2.19	3.50	2.72	2.27
2001	2.19	3.54	2.67	2.28
2002	2.24	3.48	2.94	2.30
2003	2.23	3.58	2.80	2.30

Table 2.3
Average Annual Household Expenditures
by Household Income

	Households Grouped by Total Income from Lowest to Highest Quintile				
	1	2	3	4	5
Total Household Expenditures					
1980	$7,746	$11,452	$15,370	$20,143	$29,717
1981	7,945	11,688	16,099	21,280	31,404
1982	8,080	11,788	16,200	21,444	33,311
1983	8,557	12,504	17,239	23,359	36,936
1984	10,894	14,337	19,469	26,138	41,825
1985	11,417	15,092	20,374	27,760	45,156
1986	11,477	14,639	21,088	28,698	46,242
1987	10,355	15,686	21,708	29,603	46,470
1988	10,893	16,880	23,290	32,084	48,718
1989	12,119	17,616	24,476	34,231	53,093
1990	12,908	17,924	24,673	34,247	55,411
1991	13,464	18,986	26,144	36,151	57,597
1992	12,643	19,257	26,573	36,094	57,981
1993	13,957	19,712	26,603	37,299	59,521
1994	14,356	20,891	28,513	39,033	60,803
1995	14,607	22,126	29,125	39,395	62,639
1996	15,896	22,799	30,402	41,965	66,794
1997	16,008	23,558	31,447	42,846	66,800
1998	16,630	23,709	31,400	43,811	70,648
1999	16,766	24,850	33,078	46,015	75,080
2000	17,940	26,550	34,716	46,794	75,102
2001	18,883	26,492	35,660	48,772	77,125
2002	19,061	27,140	36,881	50,432	79,199
2003	18,492	26,729	36,213	50,468	81,731
Household Expenditures for Telephone Service					
1980	$202	$266	$335	$365	$450
1981	235	294	361	415	487
1982	257	314	354	423	506
1983	268	353	386	472	571
1984	295	350	430	476	630
1985	311	363	449	503	628
1986	337	383	453	526	662
1987	335	403	501	547	670
1988	352	441	538	585	727
1989	370	459	564	644	757
1990	402	496	585	647	818
1991	415	532	596	665	834
1992	424	533	621	677	844
1993	457	532	652	731	911
1994	455	591	672	761	963
1995	491	599	703	785	968
1996	513	641	750	892	1,100
1997	530	671	794	909	1,142
1998	527	661	801	947	1,194
1999	559	671	825	975	1,227
2000	575	705	860	1,004	1,305
2001	558	727	906	1,054	1,343
2002	584	741	928	1,150	1,433
2003	564	768	932	1,142	1,441
Expenditures on Telephone Service as a Percentage of Total Household Expenditures					
1980	2.61%	2.32%	2.18%	1.81%	1.51%
1981	2.96	2.52	2.24	1.95	1.55
1982	3.18	2.66	2.19	1.97	1.52
1983	3.13	2.82	2.24	2.02	1.55
1984	2.71	2.44	2.21	1.82	1.51
1985	2.72	2.41	2.20	1.81	1.39
1986	2.94	2.62	2.15	1.83	1.43
1987	3.24	2.57	2.31	1.85	1.44
1988	3.23	2.61	2.31	1.82	1.49
1989	3.05	2.61	2.30	1.88	1.43
1990	3.11	2.77	2.37	1.89	1.48
1991	3.08	2.80	2.28	1.84	1.45
1992	3.35	2.77	2.34	1.88	1.46
1993	3.27	2.70	2.45	1.96	1.53
1994	3.17	2.83	2.36	1.95	1.58
1995	3.38	2.71	2.41	1.99	1.55
1996	3.20	2.94	2.46	2.05	1.57
1997	3.24	3.02	2.53	2.09	1.63
1998	3.17	2.79	2.55	2.16	1.69
1999	3.33	2.70	2.49	2.12	1.63
2000	3.21	2.66	2.48	2.15	1.74
2001	2.96	2.74	2.54	2.16	1.74
2002	3.06	2.73	2.52	2.28	1.81
2003	3.05	2.87	2.57	2.26	1.76

Table 2.4
Average Annual Household Expenditures
by Age of the Head of the Household

	By Age of the Head of the Household						
	Under 25	25-34	35-44	45-54	55-64	65-74	Over 74
1980	$10,903	$17,452	$21,235	$22,517	$17,535		
1981	11,309	18,503	22,890	23,385	17,418		
1982	11,368	18,814	23,309	23,539	18,449		
1983	11,855	19,708	25,230	25,896	20,585		
1984	13,461	22,294	28,214	28,696	23,401	$15,842	$11,122
1985	13,763	23,349	29,604	30,946	24,766	17,938	13,012
1986	14,142	23,931	31,219	32,218	24,808	17,506	12,198
1987	14,368	24,177	31,473	31,708	25,707	18,888	12,230
1988	16,373	25,770	33,077	33,205	25,765	20,120	13,339
1989	16,577	26,683	35,589	36,073	26,617	21,152	15,919
1990	16,518	28,107	35,579	36,996	29,244	20,895	15,448
1991	16,745	29,280	36,446	38,137	31,945	22,564	15,782
1992	17,258	29,554	37,196	37,427	31,704	22,862	17,764
1993	17,468	28,594	37,429	41,020	32,973	23,706	18,530
1994	18,417	30,468	37,565	41,420	33,682	25,059	19,280
1995	18,425	31,493	38,397	42,179	32,626	25,277	18,572
1996	18,384	33,020	39,944	42,722	36,132	27,739	19,603
1997	18,450	34,902	40,413	45,239	35,954	27,792	20,279
1998	19,436	34,779	42,154	45,475	37,329	27,830	20,987
1999	21,725	36,181	42,836	46,538	39,427	29,911	22,900
2000	22,543	38,945	45,149	46,160	39,340	30,782	21,908
2001	23,526	39,451	46,908	47,930	41,462	32,023	23,099
2002	24,229	40,318	48,330	48,748	44,330	32,243	23,759
2003	22,396	40,525	47,175	50,101	44,191	33,629	25,016
	Household Expenditures for Telephone Service						
1980	$248	$343	$401	$415	$319		
1981	275	377	433	458	364		
1982	266	389	436	484	391		
1983	275	439	472	535	421		
1984	292	450	541	558	451	$341	$266
1985	323	449	535	576	473	377	298
1986	342	485	546	580	483	399	316
1987	381	504	586	607	521	401	328
1988	417	534	617	669	543	458	338
1989	396	583	640	719	567	486	360
1990	430	604	682	750	590	476	376
1991	471	629	684	803	641	487	376
1992	469	648	698	753	652	502	421
1993	512	687	734	782	707	520	441
1994	570	726	766	819	697	551	445
1995	541	744	777	859	723	577	443
1996	537	838	856	925	814	618	459
1997	550	893	921	952	842	627	458
1998	560	888	947	993	835	679	494
1999	562	924	950	1008	869	711	506
2000	589	950	1,018	1,007	909	720	511
2001	629	1,001	1,035	1,072	926	746	551
2002	641	1,032	1,096	1,109	981	794	579
2003	616	1,001	1,097	1,156	981	773	572
	Expenditures on Telephone Service as a Percentage of Total Household Expenditures						
1980	2.27%	1.97%	1.89%	1.84%	1.82%		
1981	2.43	2.04	1.89	1.96	2.09		
1982	2.34	2.07	1.87	2.06	2.12		
1983	2.32	2.23	1.87	2.07	2.05		
1984	2.17	2.02	1.92	1.94	1.93	2.15%	2.39%
1985	2.35	1.92	1.81	1.86	1.91	2.10	2.29
1986	2.42	2.03	1.75	1.80	1.95	2.28	2.59
1987	2.65	2.08	1.86	1.91	2.03	2.12	2.68
1988	2.55	2.07	1.87	2.01	2.11	2.28	2.53
1989	2.39	2.18	1.80	1.99	1.98	2.30	2.26
1990	2.60	2.15	1.92	2.03	2.02	2.28	2.43
1991	2.81	2.15	1.88	2.11	2.01	2.16	2.38
1992	2.72	2.19	1.88	2.01	2.06	2.20	2.37
1993	2.93	2.40	1.96	1.91	2.14	2.19	2.40
1994	3.09	2.38	2.04	1.98	2.07	2.20	2.31
1995	2.94	2.36	2.02	2.04	2.22	2.28	2.39
1996	2.92	2.54	2.14	2.17	2.25	2.23	2.34
1997	2.98	2.56	2.28	2.10	2.34	2.26	2.26
1998	2.88	2.55	2.25	2.18	2.24	2.44	2.35
1999	2.59	2.55	2.22	2.17	2.20	2.38	2.21
2000	2.61	2.44	2.25	2.18	2.31	2.34	2.33
2001	2.67	2.54	2.21	2.24	2.23	2.33	2.39
2002	2.65	2.56	2.27	2.27	2.21	2.46	2.44
2003	2.75	2.47	2.33	2.31	2.22	2.30	2.29

Table 2.5
Average Annual Household Expenditures
by Size of the Household

	By Size of the Household				
	1	2	3	4	Over 4
Total Household Expenditures					
1980					
1981					
1982					
1983					
1984	$12,994	$21,515	$26,653	$28,403	
1985	13,954	23,442	28,317	31,408	
1986	13,733	24,675	28,050	32,232	
1987	14,693	24,761	28,549	32,753	
1988	15,671	26,350	30,446	34,455	$32,706
1989	16,814	28,622	32,643	35,803	35,871
1990	17,128	28,851	33,688	37,493	36,279
1991	17,569	30,648	34,389	38,806	38,269
1992	17,797	30,773	34,982	40,658	38,019
1993	17,999	31,603	35,416	42,397	39,981
1994	19,343	33,062	36,732	41,480	40,702
1995	19,389	33,100	37,838	42,819	41,561
1996	20,082	35,559	39,531	43,670	43,217
1997	20,923	36,617	40,926	45,225	43,929
1998	21,483	36,973	41,388	47,020	45,569
1999	22,404	38,895	42,885	49,119	47,581
2000	23,059	38,627	45,156	52,032	49,100
2001	23,507	40,359	45,508	54,395	53,805
2002	24,190	41,797	48,098	54,033	55,501
2003	23,657	43,693	47,406	55,201	52,565
Household Expenditures for Telephone Service					
1980					
1981					
1982					
1983					
1984	$311	$420	$494	$515	
1985	330	458	501	548	
1986	347	470	539	563	
1987	367	489	587	590	
1988	409	527	601	626	$681
1989	423	564	633	650	739
1990	440	582	681	681	769
1991	449	617	693	722	808
1992	470	616	700	722	821
1993	472	656	740	803	854
1994	502	699	774	817	879
1995	506	714	815	839	894
1996	544	777	921	904	972
1997	583	789	954	995	1,016
1998	581	839	990	991	1,022
1999	592	847	994	1,050	1,094
2000	607	865	1,031	1,108	1,136
2001	620	905	1,091	1,166	1,194
2002	624	955	1,160	1,219	1,262
2003	623	965	1,161	1,227	1,229
Expenditures on Telephone Service as a Percentage of Total Household Expenditures					
1980					
1981					
1982					
1983					
1984	2.39%	1.95%	1.85%	1.81%	
1985	2.36	1.95	1.77	1.74	
1986	2.53	1.90	1.92	1.75	
1987	2.50	1.97	2.06	1.80	
1988	2.61	2.00	1.97	1.82	2.08%
1989	2.52	1.97	1.94	1.82	2.06
1990	2.57	2.02	2.02	1.82	2.12
1991	2.56	2.01	2.02	1.86	2.11
1992	2.64	2.00	2.00	1.78	2.16
1993	2.62	2.08	2.09	1.89	2.14
1994	2.60	2.11	2.11	1.97	2.16
1995	2.61	2.16	2.15	1.96	2.15
1996	2.71	2.19	2.33	2.07	2.25
1997	2.79	2.15	2.33	2.20	2.31
1998	2.70	2.27	2.39	2.11	2.24
1999	2.64	2.18	2.32	2.14	2.30
2000	2.63	2.24	2.28	2.13	2.31
2001	2.64	2.24	2.40	2.14	2.22
2002	2.58	2.28	2.41	2.26	2.27
2003	2.63	2.21	2.45	2.22	2.34

Table 2.6

Average Annual Household Telecommunications Expenditures by Type of Provider*

	Local Exchange	Long Distance Carriers	Wireless Carriers	Total Expenditures
1995	$346	$250	$82	$596
1996	359	250	108	717
1997	379	305	129	813
1998	398	270	164	832
1999	402	257	205	864
2000	416	211	279	906
2001	426	176	351	953
2002	436	149	417	1,001
2003	441	122	492	1,055

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor* ™, Bill Harvesting®.

Note: These data are average annual *expenditures* based on sample data for those households with wireline telephone service. These data do ***not*** reflect average annual *bills*. For example, the average household in the sample spent $492 for wireless service in 2003. This average was calculated by simply dividing the total wireless expenditures of households in the sample by the total number of households in the sample. Of course, a number of households in the sample did not take wireless service in 2003 and therefore paid nothing. The average annual bill for wireless service for 2003 - averaged over only those households that received a bill - was therefore much higher, about $740. In addition, these data are only representative of telecommunications revenues from servicing residential *end-users,* and do not reflect any revenues received from servicing business customers or other *carriers*.

* Excludes households in Alaska and Hawaii.

Table 2.7
1999 Use of Communications Commodities by Industry

I-O Industry Group	Total Industry Output (Millions)	Purchases of Communications Except Radio & Television (Millions)	Communications Purchases of Percent of Industry Output	Communications Purchases by Industry as a Percent of Total Communications Commodities
1 Livestock and livestock products	$99,657	$325	0.33%	0.08%
2 Other Agricutural products	109,658	364	0.33	0.09
3 Forestry and fishery products	15,667	15	0.10	0.00
4 Agricutlural, forestry, and fishery services	52,241	239	0.46	0.06
5 & 6 Metallic ores mining	10,157	38	0.38	0.01
7 Coal mining	21,602	44	0.21	0.01
8 Crude petroleum and natural gas	102,534	233	0.23	0.06
9&10 Nonmetallic minerals mining	16,107	63	0.39	0.02
11 New Construction	745,620	3,115	0.42	0.81
12 Repair and maintenance construction	320,753	1,512	0.47	0.39
13 Ordinance and accessories	16,367	90	0.55	0.02
14 Food and kindred products	494,576	879	0.18	0.23
15 Tobacco manufactures	51,623	77	0.15	0.02
16 Broad and narrow fabrics, yarn and thread mills	42,356	72	0.17	0.02
17 Miscellaneous textile goods and fllor coverings	22,792	74	0.33	0.02
18 Apparel	64,897	166	0.26	0.04
19 Miscellaneous fabricated textile products	29,577	74	0.25	0.02
20 & 21 Lumber and wood products	128,487	240	0.19	0.06
22 & 23 Furniture and fixtures	71,860	254	0.35	0.07
24 Paper & allied products, except containers	118,003	330	0.28	0.09
25 Paperboard containers and boxes	42,615	131	0.31	0.03
26A Newspapers and periodicals	26,219	477	1.82	0.12
26B Other printing & publishing	103,135	587	0.57	0.15
27A Industraial and other chemicals	135,401	335	0.25	0.09
27B Agricultural fertilizers and chemicals	21,842	54	0.24	0.01
28 Plastics and synthetic materials	67,270	319	0.47	0.08
29A Drugs	100,278	379	0.38	0.10
29B Cleaning and toilet preparations	49,832	192	0.39	0.05
30 Paints & allied products	18,803	53	0.28	0.01
31 Petroleum refining and related industries	170,914	254	0.15	0.07
32 Rubber & miscellaneous plastics products	169,957	549	0.32	0.14
33 & 34 Footwear, leather, and leather products	8,341	24	0.29	0.01
35 Glass and glass products	23,402	89	0.38	0.02
36 Stone and clay products	72,779	229	0.32	0.06
37 Primary iron and steel manufacturing	94,889	223	0.23	0.06
38 Primary nonferrous metals manufacturing	85,226	196	0.23	0.05
39 Metal containers	12,933	26	0.20	0.01
40 Heating, plumbing, & structural metal parts	79,497	248	0.31	0.06
41 Screw machine products and stampings	56,294	142	0.25	0.04
42 Other fabricated metal products	82,339	294	0.36	0.08
43 Engines and trubines	28,605	66	0.23	0.02
44 & 45 Farm,construction and mining machinery	51,060	155	0.30	0.04
46 Materials handling machinery and equipment	14,887	55	0.37	0.01
47 Metal working machinery and equipment	39,832	176	0.44	0.05
48 Special industrial machinery and equipment	34,257	173	0.50	0.04
49 General industrial machnery and equipment	40,186	191	0.48	0.05
50 Miscellaneous machinery, except electrical	39,073	120	0.31	0.03
51 Computer and office equipment	104,654	560	0.54	0.15
52 Service industry machinery	39,049	131	0.34	0.03
53 Electrical industrial equipment and apparatus	41,404	180	0.43	0.05
54 Household appliances	22,462	92	0.41	0.02

Table 2.7
1999 Use of Communications Commodities by Industry - Continued

I-O Industry Group	Total Industry Output (Millions)	Purchases of Communications Except Radio & Television (Millions)	Communications Purchases of Percent of Industry Output	Communications Purchases by Industry as a Percent of Total Communications Commodities
55 Electric lighting and wiring equipment	26,750	101	0.38	0.03
56 Audio, video, and communications equipment	99,938	585	0.58	0.15
57 Electronic components and accessories	150,787	759	0.50	0.20
58 Miscellaneous electircal machinery and supplies	28,130	83	0.29	0.02
59A Motor vehicles (passenger cars and trucks)	260,164	335	0.13	0.09
59B Truck/bus bodies, trailers, and motor vehicle	148,382	317	0.21	0.08
60 Aircraft parts	127,044	273	0.21	0.07
61 Other transportation equipment	48,489	119	0.25	0.03
62 Scientific and controlling instruments	134,192	764	0.57	0.20
63 Opthalmic and photographic equipment	21,812	154	0.71	0.04
64 Miscellaneous manufacturing	51,756	197	0.38	0.05
65A Railroads, and related services	81,841	607	0.74	0.16
65B Motor freight transportation and warehousing	245,876	3,281	1.33	0.85
65C Water transportation	40,925	54	0.13	0.01
65D Air transportation	148,915	1,618	1.09	0.42
65E Pipelines, freight forwarders and related services	41,670	1,635	3.92	0.43
66 Communications, except radio and TV	384,486	63,517	16.52	16.52
67 Radio and television broadcasting	5,928	933	15.74	0.24
68A Electric services (utilities)	230,976	402	0.17	0.10
68B Gas production and distribution (utilties)	101,547	61	0.06	0.02
68C Water and sanitary services	72,083	563	0.78	0.15
69A Wholesale trade	883,029	18,481	2.09	4.81
69B Retail trade	796,357	9,895	1.24	2.57
70A Finance	761,040	13,090	1.72	3.40
70B Insurance	356,818	6,791	1.90	1.77
71A Owner-occupied dwellings	673,525	-	0.00	0.00
71B Real estate and royalties	855,883	5,761	0.67	1.50
72A Hotels and lodging places	88,331	1,186	1.34	0.31
72B Personal and repair services	134,522	1,805	1.34	0.47
73A Computer and data processing services	419,702	9,237	2.20	2.40
73B Legal engineering accounting services	397,290	5,375	1.35	1.40
73C Other businesses and professional services	653,498	9,601	1.47	2.50
73D Advertising	213,214	586	0.27	0.15
74 Eating and drinking places	394,950	1,573	0.40	0.41
75 Automobile repair and services	282,793	2,350	0.83	0.61
76 Amusements	216,302	1,842	0.85	0.48
77A Health Services	798,018	7,865	0.99	2.05
77B Educational and social services	345,272	3,805	1.10	0.99
78 Federal government enterprises	79,082	452	0.57	0.12
79 State and local government enterprises	46,513	659	1.42	0.17
82 General government industry	1,004,347		0.00	0.00
84 Household industry	13,111.00		0.00	0.00
Personal consumption expenditures	6,246,517	158,405	2.54	
Gross private fixed investment	1,577,194	9,262	0.59	
Changes in private inventories	59,500		0.00	
Exports	909,737	5,597	0.62	
Imports	-1,159,626		0.00	
Federal government purchases	565,000	6,670	1.18	
State and local government purchases	1,076,000	12,942	1.20	
Gross Domestic Product	25,274,351	192,877	0.76	
Intermediate Use	6,998,244	191,609	2.74	
Total Commodity Output	16,272,567	384,486	2.36	

Table 2.8
1999 Use of Commodities by the Communications Industry

I-O Industry Group		Total Commodity Output (Millions)	Sales to Communications Except Radio and Television Industry (Millions)	Percentage of Total Sales to Communications Except Radio & Television Industry	Sales to Communications Except Radio & TV as Percent of Communications Industry Output
1	Livestock and livestock products	$99,657		0.00%	0.00%
2	Other Agricutural products	109,658	$2	0.00	0.00
3	Forestry and fishery products	15,667		0.00	0.00
4	Agricutlural, forestry, and fishery services	52,241	131	0.25	0.03
5 & 6	Metallic ores mining	10,157		0.00	0.00
7	Coal mining	21,602		0.00	0.00
8	Crude petroleum and natural gas	102,534		0.00	0.00
9&10	Nonmetallic minerals mining	16,107		0.00	0.00
11	New Construction	745,620		0.00	0.00
12	Repair and maintenance construction	320,753	18,025	5.62	4.62
13	Ordinance and accessories	16,367		0.00	0.00
14	Food and kindred products	494,576		0.00	0.00
15	Tobacco manufactures	51,623		0.00	0.00
16	Broad and narrow fabrics, yarn and thread mills	42,356		0.00	0.00
17	Miscellaneous textile goods and fllor coverings	22,792	2	0.01	0.00
18	Apparel	64,897	148	0.23	0.04
19	Miscellaneous fabricated textile products	29,577	8	0.03	0.00
20 & 21	Lumber and wood products	128,487	56	0.04	0.01
22 & 23	Furniture and fixtures	71,860		0.00	0.00
24	Paper & allied products, except containers	118,003	370	0.31	0.09
25	Paperboard containers and boxes	42,615	191	0.45	0.05
26A	Newspapers and periodicals	26,219	247	0.94	0.06
26B	Other printing & publishing	103,135	1,362	1.32	0.35
27A	Industraial and other chemicals	135,401	22	0.02	0.01
27B	Agricultural fertilizers and chemicals	21,842		0.00	0.00
28	Plastics and synthetic materials	67,270		0.00	0.00
29A	Drugs	100,278	8	0.01	0.00
29B	Cleaning and toilet preparations	49,832	36	0.07	0.01
30	Paints & allied products	18,803	101	0.54	0.03
31	Petroleum refining and related industries	170,914	356	0.21	0.09
32	Rubber & miscellaneous plastics products	169,957	901	0.53	0.23
33 & 34	Footwear, leather, and leather products	8,341	3	0.03	0.00
35	Glass and glass products	23,402	46	0.20	0.01
36	Stone and clay products	72,779		0.00	0.00
37	Primary iron and steel manufacturing	94,889		0.00	0.00
38	Primary nonferrous metals manufacturing	85,226	36	0.04	0.01
39	Metal containers	12,933		0.00	0.00
40	Heating, plumbing, & structural metal parts	79,497		0.00	0.00
41	Screw machine products and stampings	56,294	608	1.08	0.16
42	Other fabricated metal products	82,339	557	0.68	0.14
43	Engines and trubines	28,605	490	1.71	0.13
44 & 45	Farm,construction and mining machinery	51,060		0.00	0.00
46	Materials handling machinery and equipmen	14,887		0.00	0.00
47	Metal working machinery and equipmen	39,832	11	0.03	0.00
48	Special industrial machinery and equipmen	34,257		0.00	0.00
49	General industrial machnery and equipmen	40,186	748	1.86	0.19
50	Miscellaneous machinery, except electrical	39,073	34	0.09	0.01
51	Computer and office equipmen	104,654	837	0.80	0.21
52	Service industry machinery	39,049	7	0.02	0.00
53	Electrical industrial equipment and apparatus	41,404	836	2.02	0.21
54	Household appliances	22,462		0.00	0.00
55	Electric lighting and wiring equipmen	26,750	197	0.73	0.06
56	Audio, video, and communications equipment	99,938	5,740	5.74	1.47
57	Electronic components and accessories	150,787	6,843	4.54	1.75

Table 2.8
1999 Use of Commodities by the Communications Industry - Continued

I-O Industry Group		Total Commodity Output (Millions)	Sales to Communications Except Radio and Television Industry (Millions)	Percentage of Total Sales to Communications Except Radio & Television Industry	Sales to Communications Except Radio & TV as Percent of Communications Industry Output
58	Miscellaneous electrical machinery and supplies	28,130	358	1.27	0.09
59A	Motor vehicles (passenger cars and trucks)	260,164		0.00	0.00
59B	Truck and bus bodies, trailers, and motor vehicle	148,382	72	0.05	0.02
60	Aircraft parts	127,044		0.00	0.00
61	Other transportation equipment	48,489		0.00	0.00
62	Scientific and controlling instrument	134,192	39	0.03	0.01
63	Opthalmic and photographic equipmen	21,812	135	0.62	0.03
64	Miscellaneous manufacturing	51,756	212	0.41	0.05
65A	Railroads, and related services	81,841	377	0.46	0.10
65B	Motor freight transportation and warehousing	245,876	537	0.22	0.14
65C	Water transportation	40,925	40	0.10	0.01
65D	Air transportation	148,915	1,612	1.08	0.41
65E	Pipelines, freight forwarders and related services	41,670	21	0.05	0.01
66	Communications, except radio and TV	384,486	63,517	16.52	16.28
67	Radio and television broadcasting	5,928	272	4.59	0.07
68A	Electric services (utilities)	230,976	1,323	0.57	0.34
68B	Gas production and distribution (utilties)	101,547	184	0.18	0.05
68C	Water and sanitary services	72,083	478	0.66	0.12
69A	Wholesale trade	883,029	3,570	0.40	0.91
69B	Retail trade	796,357	135	0.02	0.03
70A	Finance	761,040	4,304	0.57	1.10
70B	Insurance	356,818	794	0.22	0.20
71A	Owner-occupied dwellings	673,525		0.00	0.00
71B	Real estate and royalties	855,883	8,016	0.94	2.05
72A	Hotels and lodging places	88,331	1,390	1.57	0.36
72B	Personal and repair services	134,522	3,021	2.25	0.77
73A	Computer and data processing services	419,702	6,835	1.63	1.75
73B	Legal engineering accounting and related services	397,290	15,886	4.00	4.07
73C	Other businesses and professional services	653,498	11,515	1.76	2.95
73D	Advertising	213,214	7,402	3.47	1.90
74	Eating and drinking places	394,950	1,256	0.32	0.32
75	Automobile repair and services	282,793	2,697	0.95	0.69
76	Amusements	216,302	6,044	2.79	1.55
77A	Health Services	798,018		0.00	0.00
77B	Educational and social services, and membership	345,272	474	0.14	0.12
78	Federal government enterprises	79,082	1,424	1.80	0.36
79	State and local government enterprises	46,513	148	0.32	0.04
82	General government industry	1,004,347		0.00	0.00
84	Household industry	13,111		0.00	0.00
	Total Sales	16,277,252	390,265	2.40	100.00
	Value Added	9,281,532	200,065	2.16	51.26

III. Price Indices

The U.S. Department of Labor's Bureau of Labor Statistics (BLS) calculates telephone service price indices as part of two major programs. The Consumer Price Index (CPI) program publishes indices based on the amount of money that residential customers in urban areas pay for telephone service. The Producer Price Index (PPI) program publishes indices based on the amount of money that companies receive for providing telephone service. Unlike the CPI, the PPI indices cover business as well as residential telephone service.

A. Consumer Price Indices

The Consumer Price Index is the nation's most widely recognized measure of retail price changes. It is published monthly by the BLS, and measures the prices all urban consumers pay for most goods and services. BLS defines urban areas as Metropolitan Statistical Areas (MSAs) and small cities with populations greater than 2500. According to BLS, over 85 percent of the U.S. population lives in urban areas.

The BLS has published an index for telephone services since 1935. In 1978 it began publishing an index for local telephone service, interstate toll service, and intrastate toll service. In 1998 it added an index for cellular telephone services. At that time, the BLS also revised the telephone services index to include information from the cellular index and created an aggregate index by combining the interstate and intrastate toll service indices into an index for long distance services. Telephone service price changes are also included in the CPI index for all goods and services, as well as in other broad indices. According to the BLS, as of the end of December 2004, telephone prices account for roughly 2% of the CPI for all goods and services.[1]

Table 3.1 shows the annual changes in the CPI indices since 1980. In addition to showing the nominal changes in telephone prices, the table shows the changes in telephone prices after adjusting for the impact of inflation, as measured by the CPI for all goods and services. Chart 1 illustrates the changes in toll rates since the AT&T divestiture in 1984; since then, rates for both interstate and intrastate toll calls have fallen. Chart 2 adjusts the price indices for interstate and intrastate toll service for the impacts of inflation. Relative to the prices of other goods and services, long distance rates have fallen substantially since the AT&T divestiture in 1984.

Table 3.2 shows three monthly consumer price indices that were first published in 1998. A long distance service index has been created using the existing information collected for the interstate and intrastate toll indices. An index for cellular telephone service has been created and the previous "telephone services" index has been replaced with a new measure that includes the cellular price index. Since the previous index for telephone services did not include cellular services, the two series are not strictly comparable. Users should exercise caution because current price trends in the cellular market deviate significantly from those in the wireline telephony market.

[1] *See* http://www.bls.gov/cpi/cpiri2004.pdf.

B. Producer Price Indices

The Producer Price Index (PPI) is a statistical series established by the BLS to measure changes in the prices charged by producers. This index, formerly known as the Wholesale Price Index, was first published in 1902. The BLS began publishing indices for telecommunications products in 1972. These indices were wholly redesigned in mid-1995. Consequently, the current indices are not comparable to indices prior to 1995. In addition to 39 current indices of telecommunications products, the BLS publishes overall indices by stage of processing -- finished goods, intermediate goods, and crude materials for further processing.

With the release of data for January 2004, the Producer Price Index program changed its basis for industry classification from the 1987 Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS). Developed in cooperation with Canada and Mexico, NAICS represents a profound change for statistical programs focusing on emerging economic activities. The system was developed using a production-oriented conceptual framework, grouping establishments into industries based on the activity in which they are primarily engaged. While many NAICS industries directly compare with SIC industries, a number of SIC industries were split or combined to form a new NAICS industry. The PPI treats the SIC-to-NAIC comparison as continuous if 80 percent or more of the weight of the SIC-based index comprises at least 80 percent of the weight of the NAICS-based index. All index series that have passed this test are published under the NAICS structure using the index base date and price index history established by the SIC-based index. Documentation of the NAICS to SIC concordance for all subsectors, industry groups, and products may be found at http:// www.bls.gov/ppi/ppinaics.htm.[2]

Since the PPI indexes the prices received by producers, it includes the prices paid by businesses as well as consumers. The PPI does not include taxes or other government surcharges. Additionally, it is subject to substantial fluctuations from month to month and each index is revised four months following its release. Consequently, analysts should use caution when using the PPI to measure short-run trends in telecommunications prices. It is suggested that users consider constructing a three to four month moving average of the series to improve the analysis of trends. Table 3.3 presents the monthly PPI indices for the period since their revision in mid-1995. Certain Producer Price Index categories were discontinued in 1995. These PPIs may be found at http://www.bls.gov.

C. Additional Sources of Information on Price Indices

The BLS maintains current and complete access to all of the price indices at stats.bls.gov on the Internet. Visitors can find documentation on the construction of the indices there as well.

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[2] Several telecommunications PPIs published by the BLS under the SIC classification system are no long published after the conversion to NAICS. These include "Other Local Service" (SIC pcu4813#114), "Other Local Service except Directory Assistance" (SIC pcu4813#11409), "LEC Intrastate Private Line Service" (SIC pcu4813#311), "Directory Advertising" (SIC pcu4813#91), and "Other Telephone Services" (SIC pcu4813#99). In addition, "Directory Assistance" (SIC pcu4813#11401) is now classified as "Other Local Service" (NAICS 517110114) and "Telephone Communications except Radiotelephone" is now referred to as "Wired Telecommunications Carriers".

Table 3.1

Changes in the Consumer Price Indices Since 1980

(Percent change from December of the previous year through December of the year shown)

	All Goods and Services	Telephone Services		Land-line Telephone Services, Local Charges		Land-line Interstate Toll Calls		Land-line Intrastate Toll Calls		Wireless Telephone Services	
			Inflation Adjusted		Inflation Adjusted		Inflation Adjusted		Inflation Adjusted		Inflation Adjusted
1980	12.5%	4.6%	-7.1%	7.0%	-4.9%	3.4%	-8.1%	-0.6%	-11.6%		
1981	8.9%	11.7%	2.5%	12.6%	3.3%	14.6%	5.2%	6.2%	-2.5%		
1982	3.8%	7.2%	3.3%	10.8%	6.7%	2.6%	-1.2%	4.2%	0.3%		
1983	3.8%	3.6%	-0.2%	3.1%	-0.6%	1.5%	-2.2%	7.4%	3.4%		
1984	3.9%	9.2%	5.1%	17.2%	12.7%	-4.3%	-8.0%	3.6%	-0.3%		
1985	3.8%	4.7%	0.8%	8.9%	5.0%	-3.7%	-7.2%	0.6%	-3.1%		
1986	1.1%	2.7%	1.6%	7.1%	5.9%	-9.4%	-10.4%	0.3%	-0.8%		
1987	4.4%	-1.3%	-5.5%	3.3%	-1.0%	-12.4%	-16.1%	-3.0%	-7.1%		
1988	4.4%	1.3%	-3.0%	4.5%	0.1%	-4.2%	-8.2%	-4.2%	-8.3%		
1989	4.6%	-0.3%	-4.7%	0.6%	-3.9%	-1.3%	-5.7%	-2.6%	-6.9%		
1990	6.1%	-0.4%	-6.2%	1.0%	-4.8%	-3.7%	-9.3%	-2.2%	-7.8%		
1991	3.1%	3.5%	0.4%	5.1%	2.0%	1.3%	-1.7%	-1.5%	-4.4%		
1992	2.9%	-0.3%	-3.1%	0.5%	-2.4%	-1.3%	-4.1%	-2.4%	-5.1%		
1993	2.7%	1.8%	-0.9%	1.0%	-1.7%	6.5%	3.7%	0.2%	-2.5%		
1994	2.7%	0.7%	-2.0%	-0.3%	-2.9%	5.4%	2.7%	-1.0%	-3.6%		
1995	2.5%	1.2%	-1.3%	2.6%	0.0%	0.1%	-2.3%	-3.8%	-6.2%		
1996	3.3%	2.1%	-1.2%	0.9%	-2.4%	3.7%	0.4%	6.1%	2.7%		
1997	1.7%	0.2%	-1.4%	1.0%	-0.6%	-4.3%	-5.9%	2.8%	1.1%		
1998	1.6%	0.3%	-1.9%	1.3%	-0.3%	-0.8%	-2.4%	1.5%	-0.1%		
1999	2.7%	0.4%	-2.2%	2.9%	0.2%	-0.7%	-3.3%	-1.6%	-4.1%	-11.6%	-13.9%
2000	3.4%	-2.3%	-5.5%	5.6%	2.1%	-11.2%	-14.1%	-6.0%	-9.1%	-12.3%	-15.2%
2001	1.6%	1.3%	-0.2%	4.5%	2.9%	-2.0%	-3.3%	-1.7%	-3.2%	-5.5%	-6.9%
2002	2.4%	0.2%	-2.1%	5.3%	2.9%	-5.9%	-8.2%	-6.1%	-3.2%	-0.3%	-2.0%
2003	1.8%	-2.7%	-4.4%	2.6%	0.8%	-10.8%	-12.4%	-9.3%	-10.9%	-1.3%	-3.1%
2004	3.3%	-2.5%	-5.6%	1.1%	-2.1%	-8.7%	-11.7%	-6.6%	-9.6%	-1.4%	-4.5%

Chart 1

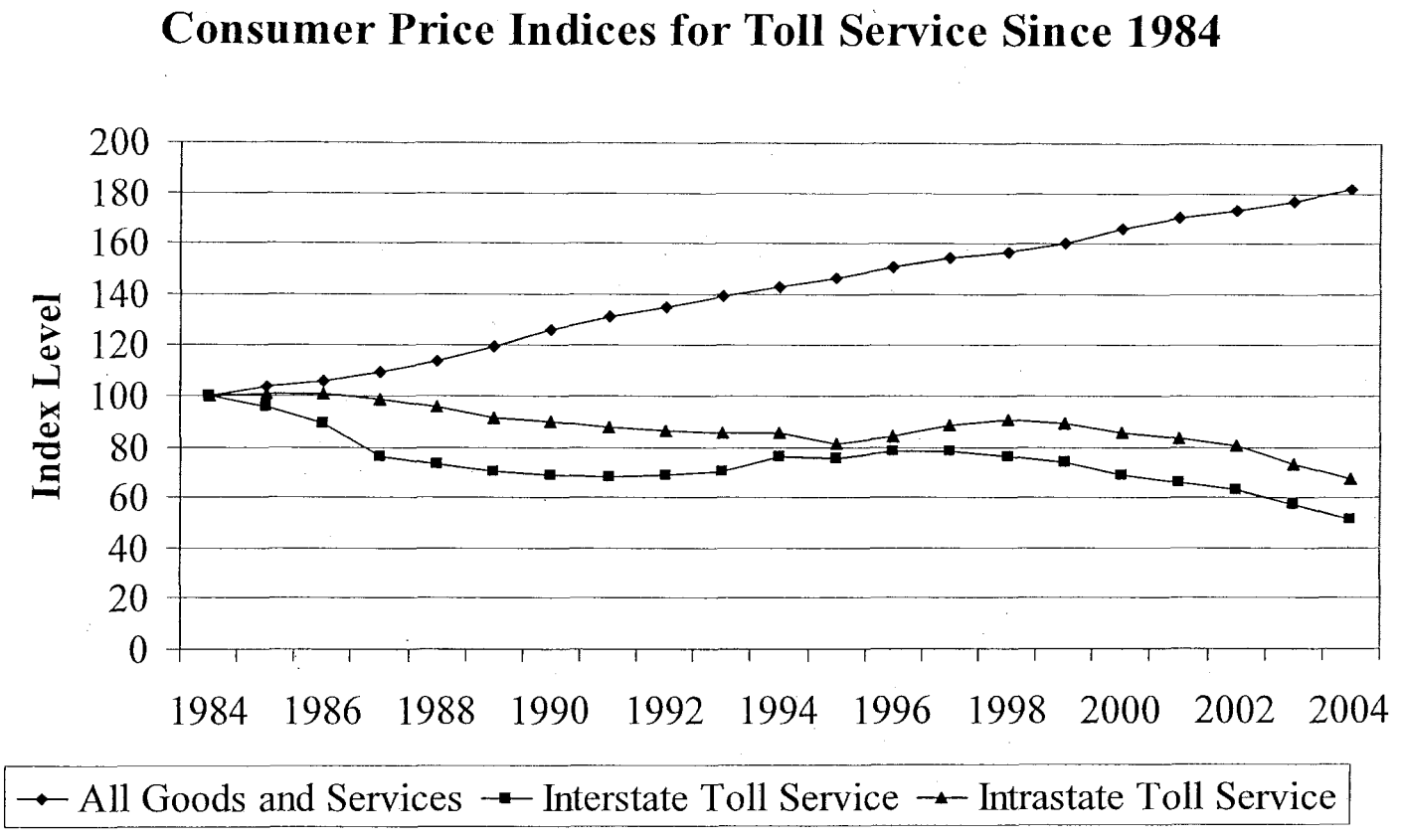
Consumer Price Indices for Toll Service Since 1984
Index Level
200
180
160
140
120
100
80
60
40
20
0
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
All Goods and Services
Interstate Toll Service
Intrastate Toll Service

Chart 2

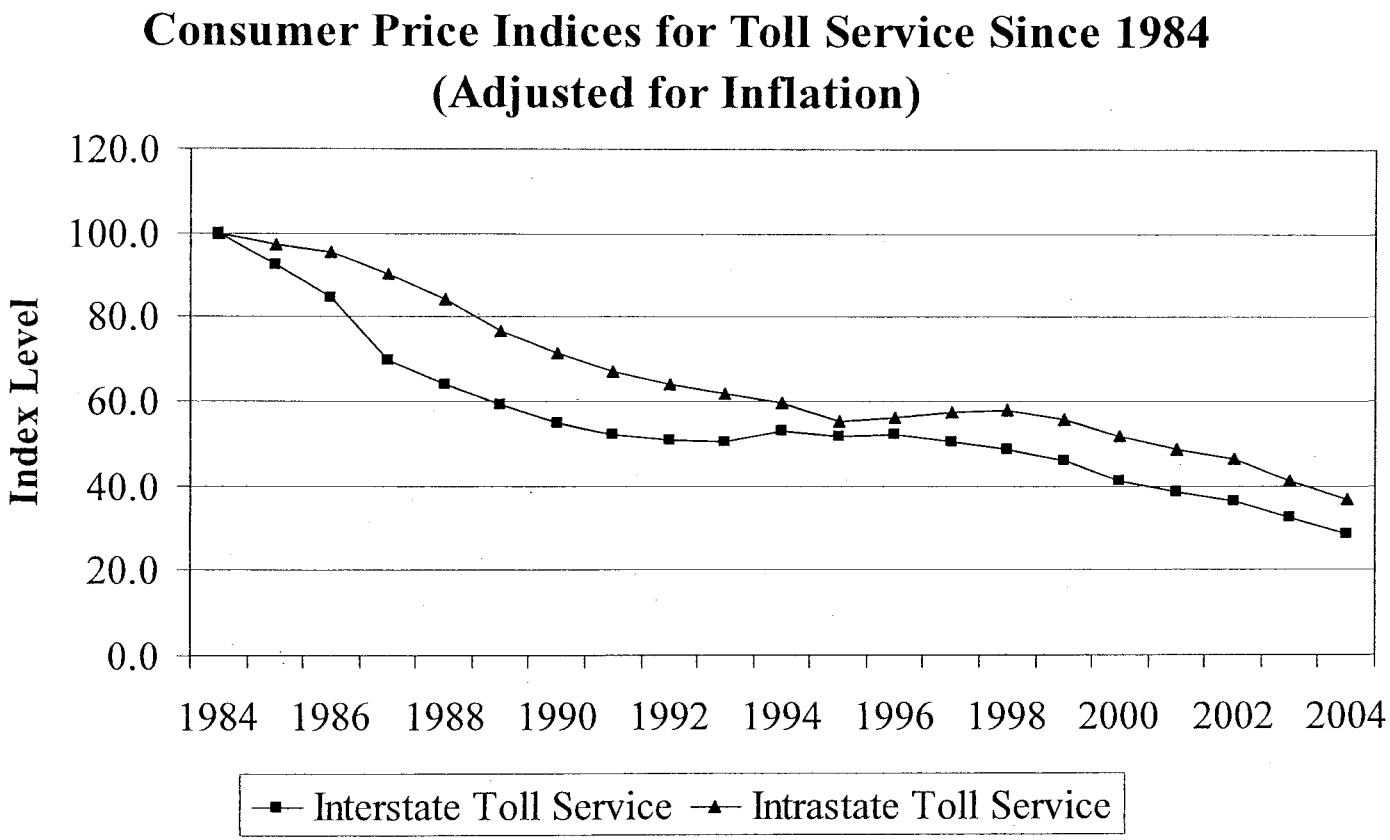
Consumer Price Indices for Toll Service Since 1984
(Adjusted for Inflation)
Index Level
120.0
100.0
80.0
60.0
40.0
20.0
0.0
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
Interstate Toll Service
Intrastate Toll Service

Table 3.2
Monthly Consumer Price Indices
(December 1997 = 100)

		All Goods and Services	Telephone Services	Land-line Telephone Services, Local Charges	Land-line Telephone Services, Long-Distance Charges	Land-line Interstate Toll Calls	Land-line Intrastate Toll Calls	Wireless Telephone Services
BLS Series ID		CUUR0000SA0	CUUR0000SEED	CUUR0000SEED01	CUUR0000SEED02	CUUR0000SS27051	CUUR0000SS27061	CUUR0000SEED03
2000	January	104.6	100.9	104.8	98.5	98.3	100.1	80.6
	February	105.3	99.4	104.9	95.5	94.0	99.2	79.7
	March	106.1	98.9	105.1	94.4	93.1	98.5	79.2
	April	106.2	98.6	105.2	93.7	92.4	97.8	78.9
	May	106.3	98.5	105.3	93.4	92.0	97.6	78.2
	June	106.9	97.2	105.8	90.6	89.0	95.0	76.8
	July	107.1	98.2	107.3	91.3	89.8	95.7	74.9
	August	107.1	98.9	109.5	90.7	89.2	95.1	73.7
	September	107.7	97.0	108.5	87.9	86.2	92.0	72.8
	October	107.9	98.3	109.8	89.4	87.9	92.9	73.0
	November	107.9	97.5	110.3	87.2	85.0	91.9	72.9
	December	107.9	98.4	110.0	89.5	87.5	93.9	71.1
2001	January	108.6	98.8	110.5	89.9	88.0	94.2	68.9
	February	109.0	98.7	110.7	89.5	87.6	93.7	68.9
	March	109.2	99.4	110.9	90.7	89.0	94.5	68.7
	April	109.7	99.0	111.9	89.1	87.2	93.1	68.8
	May	110.2	98.7	112.1	88.2	86.2	92.6	68.5
	June	110.4	99.0	112.3	88.7	86.7	93.0	68.1
	July	110.0	99.6	113.2	88.9	86.8	93.0	68.6
	August	110.0	99.6	113.9	88.5	86.4	92.7	68.1
	September	110.5	99.2	114.1	87.6	85.5	92.0	67.2
	October	110.2	99.9	114.6	88.5	86.4	92.9	67.1
	November	110.0	99.6	114.8	87.6	85.5	92.2	67.5
	December	109.5	99.7	114.9	87.9	85.8	92.3	67.2
2002	January	109.8	100.3	115.7	88.2	86.2	92.6	67.5
	February	110.2	100.3	116.1	87.9	85.8	92.6	67.5
	March	110.8	99.1	114.1	87.0	85.0	91.6	67.5
	April	111.5	98.2	114.0	85.1	82.7	90.1	67.6
	May	111.5	99.3	116.8	85.2	82.6	90.4	66.7
	June	111.5	99.2	116.9	85.0	82.4	90.1	66.6
	July	111.7	99.5	118.7	84.0	81.3	89.1	67.0
	August	112.0	100.6	120.2	84.7	82.6	89.1	67.8
	September	112.2	100.1	120.4	83.7	81.4	88.2	67.5
	October	112.4	99.9	120.6	83.0	80.7	87.5	67.9
	November	112.4	99.8	120.8	82.7	80.7	87.0	67.5
	December	112.2	99.9	121.0	82.6	80.7	86.7	67.4
2003	January	112.6	100.4	121.3	83.4	81.9	87.0	67.6
	February	113.5	100.5	121.2	83.5	82.2	86.9	67.7
	March	114.2	99.7	121.7	81.5	79.8	85.1	67.6
	April	113.9	98.7	121.9	79.2	77.4	83.1	67.5
	May	113.7	98.1	122.0	77.9	76.0	81.8	67.5
	June	113.8	97.5	122.2	76.7	74.6	80.8	66.3
	July	114.0	98.1	123.1	77.2	75.6	80.8	66.2
	August	114.4	97.8	123.7	76.0	74.0	79.7	66.1
	September	114.8	97.4	123.8	75.2	73.3	78.9	66.1
	October	114.6	97.1	124.0	74.3	72.1	78.7	66.1
	November	114.3	97.2	124.2	74.1	71.8	78.3	66.7
	December	114.2	97.2	124.1	74.3	72.0	78.6	66.5
2004	January	114.8	97.0	124.4	73.9	71.6	78.0	66.3
	February	115.4	97.1	124.2	73.9	71.6	77.8	66.6
	March	116.2	96.7	124.2	73.1	70.6	77.2	66.5
	April	116.6	96.5	123.9	72.8	70.1	77.2	66.4
	May	117.2	95.9	124.2	71.3	68.8	75.5	66.5
	June	117.6	95.8	124.2	71.2	68.4	75.4	66.4
	July	117.4	95.6	124.7	70.1	67.6	74.2	66.5
	August	117.5	95.0	124.7	68.7	66.0	72.9	66.5
	September	117.7	95.3	124.9	69.6	67.0	73.9	66.3
	October	118.4	94.6	125.2	68.3	65.7	72.6	65.5
	November	118.4	94.9	125.1	69.3	66.4	74.0	65.5
	December	118.0	94.8	125.5	68.6	65.7	73.4	65.6

Note: Figures for local telephone service, interstate toll service, and intrastate toll service after May, 2000 are converted from 1982-1984 base index series reported by the Bureau of Labor Statistics. Historical data on these series based upon the 1982-1984 index for January, 1972 through May, 2000 can be found in the Industry Analysis and Technology Division, Wireline Competition Bureau, *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service* (July 2002).

Table 3.3
Monthly Producer Price Indices
(June 1995 = 100)

	Wired Telecommunications Carriers	Local Service, except Private Lines	Residence Local Service	Business Local Service	Coin Local Service	Other Local Service
NAICS Series ID	517110	5171101	517110111	517110112	517110113	517110114
1999 January	96.9	100.4	100.2	100.4	101.7	103.6
February	96.2	100.4	100.2	100.5	101.7	103.6
March	96.6	100.4	100.2	100.5	101.7	103.6
April	97.3	100.5	100.2	100.5	101.7	103.6
May	97.0	100.5	100.2	100.5	101.7	103.6
June	97.1	100.5	100.2	100.5	101.7	103.6
July	95.5	100.5	100.2	100.5	101.8	104.0
August	95.8	100.5	100.2	100.5	101.8	104.0
September	95.7	100.5	100.4	100.5	101.8	104.0
October	95.2	100.5	100.4	100.5	101.8	104.0
November	94.3	100.5	100.4	100.5	101.8	104.0
December	94.5	100.5	100.3	100.5	101.8	104.0
2000 January	94.8	100.6	100.3	100.6	101.8	104.0
February	94.1	100.6	100.3	100.6	101.8	104.0
March	94.8	100.7	100.3	100.9	101.8	104.0
April	94.1	100.7	100.5	100.7	101.5	104.0
May	93.4	100.7	100.6	100.6	101.9	104.0
June	94.1	100.8	100.8	100.5	102.3	104.0
July	94.0	101.3	101.7	100.6	102.7	104.0
August	94.0	101.3	101.7	100.6	103.2	104.0
September	93.8	101.5	101.9	100.6	103.6	104.2
October	93.4	101.4	101.9	100.5	103.6	104.2
November	93.0	101.4	101.9	100.5	103.6	104.2
December	93.1	101.4	101.9	100.5	103.6	104.2
2001 January	92.2	101.4	101.9	100.5	103.6	104.5
February	92.0	101.5	101.9	100.5	103.6	104.5
March	92.0	101.5	101.9	100.5	103.6	104.5
April	91.9	101.9	102.5	100.7	103.5	104.5
May	91.8	101.9	102.6	100.7	103.4	104.5
June	91.4	102.0	102.9	100.7	103.6	104.5
July	91.5	102.7	104.4	100.7	103.7	104.8
August	91.8	102.8	104.4	100.7	103.9	104.8
September	92.0	102.9	104.5	100.7	104.1	104.8
October	90.1	102.9	104.5	100.8	104.3	104.8
November	90.1	102.9	104.5	100.8	104.3	104.8
December	89.2	102.9	104.5	100.8	104.3	104.8
2002 January	88.4	103.4	105.2	101.0	104.3	104.8
February	88.0	103.4	105.2	101.0	104.3	104.8
March	87.9	103.4	105.3	101.0	104.3	104.8
April	87.5	103.4	105.4	101.0	104.3	104.8
May	87.8	103.4	105.3	101.0	104.3	104.8
June	87.7	103.5	105.5	101.1	104.3	104.8
July	87.4	104.0	106.1	101.1	104.3	119.5
August	87.8	104.0	106.1	101.2	104.3	119.5
September	87.7	104.0	106.2	101.1	103.9	119.9
October	85.5	104.0	106.2	101.1	103.9	119.9
November	86.4	103.9	106.2	101.1	103.9	119.9
December	86.0	104.0	106.2	101.1	103.9	119.9
2003 January	85.7	103.9	106.2	101.1	103.9	119.9
February	85.8	103.9	106.2	101.1	103.9	119.9
March	85.8	104.0	106.2	101.1	103.9	119.9
April	85.5	104.5	106.8	101.5	103.9	119.9
May	85.9	104.8	107.4	101.6	103.9	119.9
June	85.9	105.0	107.9	101.6	103.9	119.9
July	86.0	105.2	108.2	101.6	103.9	120.3
August	86.1	105.2	108.2	101.6	103.9	120.3
September	85.7	105.2	108.2	101.6	103.9	120.3
October	85.2	105.2	108.3	101.6	103.9	120.3
November	84.7	105.2	108.3	101.6	103.9	120.3
December	84.1	105.2	108.3	101.6	103.9	120.3
2004 January	84.5	105.4	108.6	101.6	103.9	120.3
February	84.0	105.4	108.6	101.6	103.9	120.3
March	84.1	105.4	108.6	101.6	103.9	120.3
April	83.9	105.4	108.6	101.6	103.9	120.3
May	83.7	105.4	108.6	101.6	103.9	120.3
June	83.8	105.4	108.6	101.6	103.9	120.3
July	83.6	105.4	108.6	101.7	103.9	120.3
August	83.7	105.4	108.6	101.7	103.9	120.3
September	83.5	105.5	108.7	101.7	103.9	120.5
October*	83.2	105.4	108.6	101.7	103.9	120.5
November*	83.0	105.4	108.6	101.7	103.9	120.5
December*	83.0	105.4	108.5	101.7	103.9	120.5

* Subject to revision

Table 3.3
Monthly Producer Price Indices - Continued
(June 1995 = 100)

	Public Switched Toll Service	Residence Switched Toll Service	Intrastate Residence Switched Toll Service	Interstate Residence Switched Toll Service	International Residence Switched Toll Service	Business Switched Toll Service	Business Switched Access Toll Service
NAICS Series ID	5171102	51711021	517110211	517110212	517110213	51711022	517110221
1999 January	93.9	97.3	97.2	105.0	72.7	89.9	100.0
February	92.5	95.4	96.4	102.0	69.6	89.1	99.7
March	93.3	96.9	97.0	106.0	68.0	89.0	100.0
April	94.5	97.6	96.6	108.0	69.1	90.8	101.2
May	93.9	97.3	96.8	106.8	69.5	89.9	100.5
June	94.2	97.4	96.7	107.2	69.3	90.5	101.9
July	91.1	98.4	97.2	108.7	71.6	82.4	93.8
August	91.7	99.4	97.5	110.1	73.9	82.5	95.8
September	91.4	99.0	96.6	110.1	73.1	82.4	94.8
October	90.5	97.6	96.9	107.5	69.7	82.1	94.1
November	88.8	95.4	95.2	104.0	67.0	80.9	92.4
December	89.3	95.8	94.3	106.6	65.8	81.5	93.4
2000 January	89.7	96.5	94.8	107.4	67.5	81.6	95.4
February	88.4	94.1	96.2	100.1	65.9	81.6	92.9
March	89.7	96.2	95.0	105.9	68.2	82.1	95.3
April	88.3	94.6	94.4	102.8	67.0	80.8	93.4
May	87.0	92.9	93.6	99.3	65.7	80.0	93.2
June	88.3	95.1	94.4	104.1	67.0	80.3	94.0
July	87.8	94.3	93.8	102.1	68.0	80.0	94.6
August	87.7	94.2	93.8	102.2	67.2	80.0	94.5
September	87.3	94.8	93.9	104.7	64.5	78.4	92.6
October	86.6	93.2	93.5	101.7	61.6	78.8	93.1
November	85.6	92.6	93.5	101.7	58.4	77.3	91.5
December	85.9	93.0	93.7	101.8	60.2	77.5	91.1
2001 January	84.2	92.2	93.3	107.4	60.9	74.7	87.6
February	83.8	92.1	94.1	99.5	61.8	73.9	87.9
March	83.9	92.4	94.7	98.2	61.3	73.8	87.5
April	83.4	92.1	94.3	98.6	61.3	73.0	87.2
May	83.1	92.2	94.3	98.2	60.4	72.2	85.8
June	82.4	91.4	95.2	98.9	57.4	71.6	84.7
July	81.9	91.3	95.6	96.9	57.9	70.7	84.3
August	82.5	92.8	95.8	96.0	54.8	70.2	83.2
September	82.7	91.7	95.9	101.2	52.9	72.0	84.3
October	79.2	88.4	94.9	92.2	49.7	68.2	80.5
November	79.1	89.0	95.5	94.7	45.6	67.4	77.6
December	77.4	88.2	96.0	92.4	44.5	64.6	74.6
2002 January	75.7	86.7	95.4	89.1	43.9	62.7	72.7
February	75.0	85.2	95.8	85.4	42.4	62.8	73.3
March	74.6	84.5	95.6	84.8	40.2	62.8	73.6
April	73.8	83.9	95.3	82.9	41.2	61.9	73.4
May	74.5	83.5	95.3	82.1	40.6	63.7	73.7
June	74.2	83.3	95.1	81.3	41.6	63.3	74.3
July	73.3	83.1	94.7	80.9	42.1	61.5	72.1
August	74.1	84.1	96.9	81.5	42.3	62.0	72.4
September	73.8	83.0	96.9	78.8	41.4	62.8	72.8
October	69.7	77.1	96.8	63.6	39.4	60.7	71.1
November	71.4	80.9	96.4	74.9	38.3	60.2	69.8
December	70.7	80.9	95.7	75.4	38.5	58.6	69.1
2003 January	70.0	79.9	95.6	73.0	38.2	58.3	68.5
February	70.4	79.7	87.4	81.2	37.2	59.2	68.9
March	70.2	79.8	87.4	81.6	37.0	58.7	67.9
April	69.4	78.2	86.9	78.2	35.6	58.9	68.7
May	69.8	79.5	87.1	82.2	34.4	58.3	67.1
June	69.7	78.9	87.1	80.7	33.8	58.7	68.3
July	69.8	79.4	86.9	81.3	36.3	58.4	67.0
August	69.9	79.5	86.7	82.2	35.4	58.5	67.2
September	69.3	78.1	85.9	79.8	33.9	58.7	67.7
October	68.3	77.6	85.4	79.5	32.5	57.4	66.5
November	67.4	76.1	84.7	76.5	31.8	57.0	64.9
December	66.3	74.6	83.7	73.5	31.3	56.3	64.6
2004 January	66.7	75.4	83.1	76.6	30.8	56.4	64.7
February	65.9	74.1	82.6	73.1	31.4	56.1	64.3
March	66.1	74.7	82.2	76.4	29.1	55.8	63.9
April	65.8	74.4	82.1	75.2	29.9	55.5	63.4
May	65.4	74.3	82.0	75.3	29.1	54.9	62.5
June	65.5	74.3	82.1	75.7	28.5	55.0	62.9
July	65.2	74.4	82.3	75.1	29.5	54.2	62.4
August	65.3	75.0	82.5	76.8	29.6	53.9	62.0
September	64.9	74.3	81.9	75.7	28.7	53.8	61.8
October*	64.3	74.0	82.2	74.9	28.2	52.8	60.4
November*	64.0	73.3	81.9	74.0	26.4	52.9	61.1
December*	63.9	73.4	81.8	74.3	27.0	52.7	60.4

* Subject to revision

Table 3.3
Monthly Producer Price Indices - Continued
(June 1995 = 100)

	Outbound Business Switched Access Toll Service	Intrastate Business Switched Access Toll Service, Outbound	Interstate Business Switched Access Toll Service, Outbound	International Business Switched Access Toll Service, Outbound	Inbound Business Switched Access Toll Service	Intrastate Business Switched Access Toll Service, Inbound	Interstate Business Switched Access Toll Service, Inbound	International Business Switched Access Toll Service, Inbound
NAICS Series ID	5171102211	51711022111	51711022112	51711022113	5171102212	51711022121	51711022122	51711022123
1999 January	108.1	104.7	122.2	88.1	86.0	75.3	79.6	69.9
February	106.4	104.5	118.4	86.2	88.0	78.0	83.4	65.2
March	107.5	104.9	120.3	88.0	87.0	74.7	82.9	65.4
April	107.9	104.3	122.2	88.1	89.4	76.5	86.8	70.9
May	107.9	104.1	120.6	92.3	87.8	74.4	83.7	75.7
June	110.5	104.7	123.8	100.2	86.9	73.6	82.4	74.5
July	100.0	102.5	104.6	84.2	83.0	70.7	74.5	79.3
August	103.2	102.9	112.9	83.5	83.0	70.0	75.3	74.4
September	101.8	102.5	110.4	82.1	82.5	69.8	74.8	69.0
October	100.0	102.3	109.6	72.6	83.7	70.5	76.1	79.9
November	98.8	101.9	108.1	69.3	81.3	68.3	72.3	74.7
December	99.3	101.9	107.0	75.4	83.1	69.7	75.0	81.2
2000 January	102.1	102.4	109.9	85.2	83.8	70.7	76.6	76.2
February	98.5	101.5	104.8	76.9	83.2	70.2	75.7	75.0
March	101.4	103.0	113.6	69.3	84.6	76.1	74.9	80.1
April	100.0	102.0	110.5	70.5	81.9	69.5	74.6	58.9
May	100.5	102.0	110.5	74.0	80.7	68.4	72.7	56.5
June	100.6	102.2	111.1	72.6	82.6	68.8	77.4	52.0
July	101.6	102.2	110.5	80.9	82.5	68.7	77.3	51.0
August	101.6	102.2	110.8	80.3	82.2	68.3	76.6	54.1
September	100.1	102.0	110.0	73.0	79.5	61.9	74.2	51.9
October	98.9	101.8	108.2	69.6	83.1	69.4	78.2	52.9
November	97.5	101.3	105.6	68.3	81.1	67.5	75.2	46.9
December	96.9	100.8	103.0	72.4	81.1	67.2	74.8	52.5
2001 January	92.1	99.4	95.6	62.8	79.7	65.8	72.5	51.1
February	91.2	99.0	95.5	58.0	82.2	68.5	77.3	46.8
March	91.0	99.5	92.7	62.2	81.5	67.6	75.7	51.4
April	91.0	98.4	96.1	57.1	80.6	66.3	74.5	50.7
May	89.3	97.7	93.2	55.1	79.7	66.4	72.3	49.6
June	87.0	98.0	86.7	55.3	80.6	66.7	74.3	49.3
July	87.1	98.4	86.3	55.3	79.4	67.5	71.0	49.3
August	86.2	98.3	85.6	51.9	77.8	64.9	69.1	47.4
September	88.2	97.6	91.1	53.3	77.6	63.5	68.9	51.9
October	81.5	95.4	77.6	48.9	78.6	66.8	70.1	45.9
November	80.2	96.7	70.8	53.5	73.2	62.0	60.2	45.4
December	74.6	93.4	60.7	51.3	74.5	56.5	66.9	40.4
2002 January	72.6	93.3	56.2	48.9	72.7	60.8	60.8	37.4
February	72.3	93.3	55.1	49.3	75.1	62.6	64.7	37.9
March	73.3	93.1	57.4	50.9	74.1	63.2	61.9	39.8
April	72.7	92.8	54.5	53.9	74.7	60.7	65.2	36.4
May	72.4	91.7	49.7	64.2	76.1	63.3	66.2	41.0
June	72.9	92.1	52.9	61.1	76.7	62.5	67.0	41.0
July	70.5	91.9	49.4	53.4	74.8	63.2	63.5	39.4
August	69.3	91.8	48.7	48.4	77.6	64.7	68.2	42.1
September	69.7	91.8	49.0	50.2	78.0	64.9	67.6	55.1
October	68.3	91.4	48.9	43.0	75.9	62.6	64.0	58.4
November	67.7	91.0	48.2	42.2	73.6	61.0	61.5	45.7
December	66.0	90.5	44.4	40.9	74.4	60.2	63.9	45.3
2003 January	65.3	90.2	42.5	41.6	73.9	62.9	60.3	52.2
February	64.4	89.9	41.1	39.8	76.7	63.2	65.9	54.3
March	64.4	90.0	40.6	40.4	74.0	63.3	60.2	52.6
April	64.4	89.4	41.4	40.4	76.0	63.4	64.2	55.4
May	62.3	89.1	37.6	36.8	75.5	63.5	62.6	57.5
June	63.0	89.2	37.8	39.8	77.4	64.6	66.4	54.8
July	61.8	88.9	34.5	40.4	75.9	64.5	61.9	65.5
August	62.0	88.8	34.3	41.9	76.1	64.6	62.9	60.3
September	61.3	88.8	34.4	38.1	78.6	67.2	65.8	68.8
October	61.1	88.7	35.5	35.1	75.8	64.3	62.7	59.8
November	60.0	88.5	32.9	34.4	73.3	62.4	59.8	47.7
December	59.5	88.3	31.9	33.7	73.4	60.0	61.7	46.1
2004 January	59.2	88.2	32.1	32.0	74.0	61.2	62.6	43.1
February	58.3	87.2	30.4	32.7	74.5	60.0	64.6	41.7
March	58.4	88.1	30.5	30.4	73.3	60.5	62.4	35.8
April	57.8	87.5	29.4	31.0	72.9	60.9	60.9	39.6
May	57.1	86.9	28.5	30.2	71.6	60.5	58.4	39.5
June	57.4	87.1	28.7	30.9	72.5	60.2	60.6	38.8
July	57.0	87.0	27.6	31.4	71.5	59.8	58.5	40.4
August	57.1	86.7	27.9	31.5	70.6	61.0	55.6	40.4
September	56.6	86.6	27.2	30.6	70.8	61.3	56.0	39.8
October*	54.7	85.0	24.9	27.9	70.2	60.8	55.3	38.5
November*	55.1	86.1	25.3	27.2	71.3	60.9	58.0	35.1
December*	55.0	85.4	25.1	28.3	69.7	60.0	54.7	39.0

* Subject to revision

Table 3.3
Monthly Producer Price Indices - Continued
(June 1995 = 100)

	Business Special Access Switched Toll Service, except Private Lines	Outbound Business Special Access Switched Toll Service	Intrastate Business Special Access Switched Toll Service, Outbound	Interstate Business Special Access Switched Toll Service, Outbound	International Business Special Access Switched Toll Service, Outbound	Inbound Business Special Access Switched Toll Service	Intrastate Business Special Access Switched Toll Service, Inbound
NAICS Series ID	517110222	5171102221	51711022211	51711022212	51711022213	5171102222	51711022221
1999 January	72.9	65.4	67.0	61.4	68.5	86.3	77.3
February	71.2	63.5	63.0	58.3	68.0	84.9	84.6
March	70.5	62.3	63.5	58.5	63.8	85.2	80.3
April	73.3	64.7	69.5	63.6	61.5	88.6	79.8
May	72.0	63.1	66.0	63.5	57.7	88.0	79.9
June	71.2	60.0	61.9	60.0	54.2	91.2	83.8
July	63.0	58.3	61.5	56.6	53.6	71.6	64.0
August	60.1	51.5	54.5	53.1	38.7	75.7	67.4
September	61.4	54.2	58.7	55.0	43.4	74.4	65.5
October	61.9	57.6	60.8	57.3	50.6	69.5	59.5
November	61.4	53.9	54.0	51.2	50.1	74.8	65.6
December	61.5	56.0	56.3	53.7	52.5	71.2	61.6
2000 January	58.2	50.6	47.0	44.9	51.3	71.9	62.4
February	62.4	55.5	55.3	51.9	53.8	74.8	66.0
March	59.7	52.6	52.3	49.4	49.1	72.5	63.1
April	59.7	53.2	52.6	50.2	49.7	71.3	61.6
May	57.7	51.7	50.0	48.3	48.6	68.5	58.3
June	57.0	50.5	51.3	48.4	43.8	68.8	58.6
July	55.4	49.0	49.4	48.0	40.3	66.8	56.1
August	55.6	48.7	50.3	48.2	38.5	67.9	57.4
September	54.3	46.5	46.3	45.3	36.9	68.3	57.9
October	54.7	48.9	49.2	46.8	41.6	65.3	54.3
November	53.3	48.2	49.1	47.2	38.7	62.5	50.9
December	54.5	45.7	45.5	44.2	36.4	70.3	60.5
2001 January	53.0	43.8	40.7	39.4	39.0	69.5	59.5
February	50.2	42.8	43.1	39.7	34.4	63.5	52.1
March	50.7	41.9	41.1	39.5	32.2	66.5	55.4
April	48.9	41.3	47.0	34.8	35.4	62.4	52.9
May	49.3	41.4	49.5	35.5	33.8	63.4	58.5
June	49.6	40.7	44.4	34.9	34.4	65.5	56.8
July	47.9	41.1	41.5	38.7	30.8	60.1	49.9
August	48.4	39.5	37.5	34.6	33.0	64.4	57.7
September	51.2	43.5	49.1	37.2	38.5	65.1	58.5
October	47.4	40.7	49.7	33.6	34.1	59.6	53.3
November	50.2	41.9	29.5	32.6	47.3	65.0	60.8
December	47.7	40.2	47.8	30.0	38.8	61.3	53.4
2002 January	46.0	36.9	47.2	25.7	34.9	62.8	62.8
February	45.3	39.1	48.3	29.4	36.1	56.2	45.7
March	44.9	38.9	52.2	28.3	35.5	55.3	48.1
April	42.8	36.8	53.8	25.0	33.1	53.5	45.4
May	46.7	39.4	50.0	30.2	34.8	59.9	57.0
June	45.0	38.7	49.0	29.5	34.2	56.2	51.9
July	43.9	38.1	49.7	27.7	34.5	54.2	48.5
August	44.8	38.4	43.7	29.4	35.0	56.2	51.2
September	45.9	40.0	52.1	30.4	35.8	56.3	50.5
October	43.3	36.8	45.8	27.0	33.0	54.8	47.2
November	43.9	37.9	47.7	28.6	33.3	54.5	46.3
December	41.2	35.4	43.1	24.3	33.5	51.6	46.6
2003 January	41.5	34.9	47.3	25.1	29.0	53.2	54.0
February	42.8	36.1	42.5	27.3	31.0	54.8	46.7
March	43.1	37.4	46.8	29.7	29.9	53.2	51.5
April	42.6	36.3	47.1	25.3	33.3	53.9	47.8
May	43.4	37.5	41.8	28.1	35.1	53.7	50.8
June	42.6	35.9	44.2	26.2	31.7	54.7	46.9
July	43.7	39.4	51.1	31.0	32.9	51.0	51.0
August	43.9	38.8	49.6	30.0	33.2	52.5	44.3
September	43.5	38.6	50.5	29.0	34.1	51.7	52.3
October	41.9	36.7	46.2	28.4	29.8	51.0	48.1
November	43.5	38.7	49.3	30.5	32.2	51.6	50.2
December	42.3	36.9	46.9	28.5	30.2	51.6	48.8
2004 January	42.4	36.6	47.4	28.1	29.6	52.5	49.4
February	42.3	37.1	42.6	31.7	26.8	51.3	46.9
March	42.0	35.6	42.4	29.6	25.4	53.5	50.0
April	42.0	36.1	46.0	29.7	25.3	52.4	46.7
May	41.8	36.0	43.6	29.7	26.0	52.2	48.4
June	41.6	35.7	43.8	29.3	25.5	52.0	50.5
July	40.4	35.1	43.0	27.7	26.5	49.8	47.7
August	40.0	34.5	44.1	26.4	26.2	49.8	48.4
September	40.2	34.4	45.0	26.8	25.1	50.5	51.7
October*	39.8	34.6	44.0	26.5	26.5	48.8	48.0
November*	39.1	33.9	41.2	26.1	25.6	48.3	45.0
December*	39.5	33.9	42.2	26.1	25.4	49.5	47.2

* Subject to revision

Table 3.3
Monthly Producer Price Indices - Continued
(June 1995 = 100)

	Interstate Business Special Access Switched Toll Service, Inbound	International Business Special Access Switched Toll Service, Inbound	Other Toll Service	Private Line Service	Intrastate Private Line Service	Other Telephone Services
NAICS Series ID	51711022222	51711022223	51711029	5171103	51711031	5171109
1999 January	97.6	96.0	101.5	100.2	100.6	100.8
February	93.0	96.1	101.5	100.3	100.8	100.8
March	94.7	96.0	101.5	100.3	100.8	100.8
April	101.2	96.2	101.4	100.3	100.8	100.8
May	100.0	96.2	102.0	100.3	100.8	100.8
June	104.9	96.9	100.1	100.3	100.8	100.8
July	74.2	97.1	101.6	100.3	100.8	100.2
August	80.7	96.5	100.0	100.3	100.8	100.2
September	79.0	96.2	101.9	100.3	100.8	100.8
October	71.6	92.1	100.0	100.3	100.8	100.8
November	79.6	85.0	98.8	100.3	100.8	100.9
December	74.3	84.5	99.1	100.4	101.2	100.4
2000 January	75.2	90.6	99.1	100.4	101.2	100.7
February	79.5	90.0	99.6	100.4	101.2	100.9
March	76.1	90.8	100.2	100.4	101.2	100.5
April	74.3	88.5	100.6	100.4	101.2	100.6
May	70.2	89.1	100.3	100.4	101.2	100.0
June	70.6	89.1	100.8	100.4	101.2	100.0
July	67.6	85.2	100.6	100.4	101.2	100.7
August	69.2	93.0	100.3	100.4	101.2	100.6
September	69.8	95.5	100.4	100.4	101.2	101.3
October	65.2	93.0	99.3	100.4	101.1	100.0
November	61.2	78.2	99.8	100.4	101.2	101.3
December	72.9	88.8	95.6	100.4	101.2	101.0
2001 January	71.6	84.2	101.7	100.4	101.1	101.5
February	62.7	81.3	102.9	100.4	101.0	101.5
March	67.2	84.5	101.0	100.4	101.0	101.5
April	60.4	90.4	101.6	100.4	101.0	101.5
May	60.6	90.1	101.4	100.3	100.7	101.5
June	65.0	93.2	101.2	100.3	101.0	101.5
July	56.9	92.6	100.3	100.3	101.0	101.4
August	62.8	88.5	100.2	100.3	101.0	101.4
September	63.7	87.7	101.0	100.5	101.5	101.5
October	55.1	85.7	100.6	100.6	101.7	101.5
November	63.0	80.7	100.3	100.6	101.7	101.7
December	58.3	70.4	101.6	100.6	101.7	101.7
2002 January	58.4	78.6	102.4	100.6	101.7	101.7
February	50.6	76.0	100.5	100.6	101.9	101.7
March	48.4	77.2	99.2	100.6	101.9	101.7
April	45.6	75.6	99.2	100.7	102.2	101.7
May	54.5	74.4	99.9	100.8	102.3	101.6
June	48.9	74.6	100.1	100.9	102.5	101.6
July	46.1	74.2	99.5	100.9	102.7	101.6
August	49.1	75.6	99.6	100.9	102.7	101.6
September	49.6	75.2	99.5	100.9	102.7	101.6
October	47.6	73.5	95.9	101.3	103.7	101.9
November	47.3	74.5	96.4	101.3	103.7	101.8
December	41.6	74.0	93.9	101.3	103.7	102.0
2003 January	42.7	73.9	91.5	101.3	103.7	102.0
February	47.7	74.4	92.4	101.3	103.7	101.9
March	43.4	60.9	90.5	101.3	103.7	101.9
April	45.8	61.3	90.4	101.3	103.7	101.9
May	44.5	59.2	87.2	101.3	103.7	101.9
June	47.5	55.4	86.9	101.3	103.7	101.9
July	39.4	56.4	85.6	101.2	103.6	101.9
August	44.2	54.6	86.7	101.2	103.6	101.7
September	40.4	56.2	84.9	101.2	103.6	101.7
October	40.2	58.6	84.1	101.2	103.6	101.9
November	40.8	52.4	82.7	101.2	103.6	101.9
December	41.1	52.3	81.6	101.2	103.6	101.9
2004 January	42.7	55.6	82.9	101.2	103.6	101.9
February	41.1	54.3	80.7	101.2	103.6	101.9
March	44.4	62.6	78.7	101.2	103.6	101.8
April	43.3	48.5	77.4	101.2	103.6	101.8
May	42.4	46.9	76.9	101.2	103.6	101.8
June	41.4	49.2	75.2	101.2	103.6	101.8
July	38.2	46.6	74.6	101.2	103.6	101.8
August	38.0	45.1	73.3	101.2	103.6	101.8
September	38.2	44.4	74.0	101.3	103.8	101.8
October*	36.1	44.1	71.9	101.2	103.6	102.0
November*	36.0	37.1	71.2	101.2	103.6	102.0
December*	37.7	38.1	71.7	101.2	103.6	102.0

* Subject to revision

Appendix

Residential Rate Review

Please update these data for October 15, 2004

I. Access Rates **Monthly Charges per line (Express all figures in DOLLAR amounts)**	Generally Available Service		Subsidized Services Such as Lifeline	
	(#1) Unlimited or Flat-Rate Service	(#2) Measured or Message Service	(#3) Unlimited or Flat-Rate Service	(#4) Measured or Message Service
a. Recurring service charge incl. touch-tone b. Federal subscriber line charge (SLC) c. State subscriber line charge				
d1. Federally tariffed local number portability (LNP) surcharge d2. Federal universal service surcharge on Federal SLC and LNP d3. Other mandatory surcharges (such as gross receipts tax, regulatory fees or passthrough charges on the State SLC) accounted as company revenue				
d4. Tax or surcharge for funding 911 service d5. Federal excise tax d6. Intrastate telecommunications relay service (TRS or relay) tax or surcharge d7. Tot. other taxes (sales, excise, etc.) levied on customers by state, county, local govts. e. Total Surcharges and Taxes (sum d1 to d7)				
f. Total Monthly Recurring Charge = a + b + c + e				
g. Lowest monthly inside wiring plan h. Optional extended area plan				
Charges for calls in local service area i. Number of voice calls or message units included in monthly rate if message service j. Dollar calling allowance for voice calls incl. in monthly rate if measured service k. Charge for a 5-minute, business day, same-zone voice call				

II. Service Connection Charges	Normal Service	Subsidized Service (e.g., Link-Up)
a. Total connection charge for residential service if no premises visit is required b. Minimum additional charge if drop line and terminal block are needed to connect service. Do not include any inside wiring charges.		

III. Other Mandatory Charges for Connection	Normal Service	Subsidized Service (e.g., Link-Up)
a. Mandatory surcharges on connection accounted as company revenue (in dollars) b. State, county, and local taxes and surcharges on connection (total in dollars) c. Other mandatory connection charges (in dollars)		

Notes

Form Completed by: _____ **Contact Telephone Number:** _____

Contact E-mail: _____

Business Rate Review

Please update these data for October 15, 2004

I. Access Rates

	Single Line Business	
	Unlimited Service	Measured Service
Monthly Charges per line (Express all figures in DOLLAR amounts)		
a. Recurring service charge (including touch-tone)		
b. Federal subscriber line charge (SLC)		
c. State subscriber line charge		
d1. Federally tariffed local number portability (LNP) surcharge		
d2. Federal universal service surcharge on the Fed. SLC and LNP		
d3. Other mandatory surcharges (such as gross receipts tax, regulatory or passthrough charges on the State SLC) accounted as company revenue		
d4. Tax or surcharge for funding 911 service		
d5. Federal excise tax		
d6. Intrastate telecommunications relay service (TRS or relay) tax		
d7. Total other taxes (such as sales, excise, etc.) levied on customers by state, county, local governments		
e. Total Surcharges and Taxes (sum d1 to d7)		
f. Total Monthly Recurring Charge = a + b + c + e		
g. Lowest monthly inside wiring		
Charges for calls in the local service area		
h. The number of voice calls or message units included in the monthly recurring rate if message service		
i. The dollar calling allowance for voice calls included in the monthly recurring rate if measured service		
j. The charge for a 5-minute, business day, same-zone voice call		

II. Service Connection Charges

	Single Line Business
a. Total connection charge for single-line business service. Assume no premise visit is required.	
b. Minimum additional charge if drop line and terminal block are needed to connect service. Do not include any inside wiring charges. Do not include the cost of an NT1 interface or power supply for ISDN lines.	

III. Other Mandatory Charges for Connection

a. Mandatory surcharges on connection accounted as company revenue (in dollars)	
b. State, county, and local taxes and surcharges on connection (total in dollars)	
c. Other mandatory connection charges (in dollars)	

IV. Payphone Charges

a. Tariff rate for a 5-minute, business day, same-zone call at a company-owned payphone	

Notes

Form Completed by: _____ **Contact Telephone Number:** _____

Contact E-mail: _____

Customer Response

Publication: *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service, 2005.*

You can help us provide the best possible information to the public by completing this form and returning it to the Industry Analysis & Technology Division of the FCC's Wireline Competition Bureau.

1. Please check the category that best describes you:
   - ____ press
   - ____ current telecommunications carrier
   - ____ potential telecommunications carrier
   - ____ business customer evaluating vendors/service options
   - ____ consultant, law firm, lobbyist
   - ____ other business customer
   - ____ academic/student
   - ____ residential customer
   - ____ FCC employee
   - ____ other federal government employee
   - ____ state or local government employee
   - ____ Other (please specify)

2. Please rate the report:

	Excellent	Good	Satisfactory	Poor	No opinion
Data accuracy	◯	◯	◯	◯	◯
Data presentation	◯	◯	◯	◯	◯
Timeliness of data	◯	◯	◯	◯	◯
Completeness of data	◯	◯	◯	◯	◯
Text clarity	◯	◯	◯	◯	◯
Completeness of text	◯	◯	◯	◯	◯

3. Overall, how do you rate this report?

Excellent	Good	Satisfactory	Poor	No opinion
◯	◯	◯	◯	◯

4. How can this report be improved?

5. May we contact you to discuss possible improvements?
   Name:
   Telephone #:

Questions? Contact Paul Zimmerman at 202-418-7285 or email paul.zimmerman@fcc.gov		
Fax this response to	Or	Mail this response to
202-418-0520		FCC/IATD Washington, D.C. 20554

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-24)
Household Income

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-24

US Census Bureau, 2003 Household Income and Expenditures.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 32
Company/ Alltel
Witness: David C. Blessing (DCB-24)
Date: 12/01/05

Subject	Households	Families			Nonfamily households
		Total	Married-couple families	Female householder, no husband present	
NUMBER					
Total	6,341,121	4,238,409	3,242,027	739,159	2,102,712
Less than $10,000	606,995	243,787	94,603	125,499	390,446
$10,000 to $14,999	427,050	195,528	95,733	81,379	247,440
$15,000 to $19,999	442,980	243,855	138,440	82,006	214,256
$20,000 to $24,999	475,475	280,154	176,352	77,963	206,375
$25,000 to $29,999	460,353	289,511	196,153	67,583	177,432
$30,000 to $34,999	441,101	290,003	209,018	57,671	152,214
$35,000 to $39,999	400,470	275,917	208,448	48,390	121,313
$40,000 to $44,999	379,192	268,173	210,563	40,327	105,609
$45,000 to $49,999	323,892	238,828	194,276	31,131	78,703
$50,000 to $59,999	564,222	427,901	361,843	45,059	123,509
$60,000 to $74,999	606,347	479,487	423,619	36,996	109,642
$75,000 to $99,999	552,379	452,986	412,552	26,048	82,563
$100,000 to $124,999	271,522	225,543	210,860	8,945	38,614
$125,000 to $149,999	127,338	107,192	101,269	3,897	16,664
$150,000 to $199,999	114,432	96,551	91,649	2,756	15,307
$200,000 or more	147,373	122,993	116,649	3,509	22,625
Median income (dollars)	38,819	45,625	52,202	25,185	24,799
Mean income (dollars)	53,504	61,238	69,358	32,351	35,392
PERCENT DISTRIBUTION					
Total	100.0	100.0	100.0	100.0	100.0
Less than $10,000	9.6	5.8	2.9	17.0	18.6
$10,000 to $14,999	6.7	4.6	3.0	11.0	11.8
$15,000 to $19,999	7.0	5.8	4.3	11.1	10.2
$20,000 to $24,999	7.5	6.6	5.4	10.5	9.8
$25,000 to $29,999	7.3	6.8	6.1	9.1	8.4
$30,000 to $34,999	7.0	6.8	6.4	7.8	7.2
$35,000 to $39,999	6.3	6.5	6.4	6.5	5.8
$40,000 to $44,999	6.0	6.3	6.5	5.5	5.0
$45,000 to $49,999	5.1	5.6	6.0	4.2	3.7
$50,000 to $59,999	8.9	10.1	11.2	6.1	5.9
$60,000 to $74,999	9.6	11.3	13.1	5.0	5.2
$75,000 to $99,999	8.7	10.7	12.7	3.5	3.9
$100,000 to $124,999	4.3	5.3	6.5	1.2	1.8
$125,000 to $149,999	2.0	2.5	3.1	0.5	0.8
$150,000 to $199,999	1.8	2.3	2.8	0.4	0.7
$200,000 or more	2.3	2.9	3.6	0.5	1.1

Subject	Households	Families			Nonfamily households
		Total	Married-couple families	Female householder, no husband present	

Subject	Households	Families			Nonfamily households
		Total	Married-couple families	Female householder, no husband present	

(X) Not applicable.
Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrices P52, P53, P54, P79, P80, P81, PCT38, PCT40, and PCT41.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-25)
CPI

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-25

CPI - All Urban Consumers - All Items - Year to Year Average Change in CPI; U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C. 20212; Consumer Price Index, All Urban Consumers – (CPI-U), U.S. City Average – All Items.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 33
Company/ Alltel
Witness: David C. Blessing (DCB-25)
Date: 12/01/05

Annual CPI Changes

1982-84=100

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.
1913	9.8	9.8	9.8	9.8	9.7	9.8	9.9	9.9	10.0	10.0
1914	10.0	9.9	9.9	9.8	9.9	9.9	10.0	10.2	10.2	10.1
1915	10.1	10.0	9.9	10.0	10.1	10.1	10.1	10.1	10.1	10.2
1916	10.4	10.4	10.5	10.6	10.7	10.8	10.8	10.9	11.1	11.3
1917	11.7	12.0	12.0	12.6	12.8	13.0	12.8	13.0	13.3	13.5
1918	14.0	14.1	14.0	14.2	14.5	14.7	15.1	15.4	15.7	16.0
1919	16.5	16.2	16.4	16.7	16.9	16.9	17.4	17.7	17.8	18.1
1920	19.3	19.5	19.7	20.3	20.6	20.9	20.8	20.3	20.0	19.9
1921	19.0	18.4	18.3	18.1	17.7	17.6	17.7	17.7	17.5	17.5
1922	16.9	16.9	16.7	16.7	16.7	16.7	16.8	16.6	16.6	16.7
1923	16.8	16.8	16.8	16.9	16.9	17.0	17.2	17.1	17.2	17.3
1924	17.3	17.2	17.1	17.0	17.0	17.0	17.1	17.0	17.1	17.2
1925	17.3	17.2	17.3	17.2	17.3	17.5	17.7	17.7	17.7	17.7
1926	17.9	17.9	17.8	17.9	17.8	17.7	17.5	17.4	17.5	17.6
1927	17.5	17.4	17.3	17.3	17.4	17.6	17.3	17.2	17.3	17.4
1928	17.3	17.1	17.1	17.1	17.2	17.1	17.1	17.1	17.3	17.2
1929	17.1	17.1	17.0	16.9	17.0	17.1	17.3	17.3	17.3	17.3
1930	17.1	17.0	16.9	17.0	16.9	16.8	16.6	16.5	16.6	16.5
1931	15.9	15.7	15.6	15.5	15.3	15.1	15.1	15.1	15.0	14.9
1932	14.3	14.1	14.0	13.9	13.7	13.6	13.6	13.5	13.4	13.3
1933	12.9	12.7	12.6	12.6	12.6	12.7	13.1	13.2	13.2	13.2
1934	13.2	13.3	13.3	13.3	13.3	13.4	13.4	13.4	13.6	13.5
1935	13.6	13.7	13.7	13.8	13.8	13.7	13.7	13.7	13.7	13.7
1936	13.8	13.8	13.7	13.7	13.7	13.8	13.9	14.0	14.0	14.0
1937	14.1	14.1	14.2	14.3	14.4	14.4	14.5	14.5	14.6	14.6
1938	14.2	14.1	14.1	14.2	14.1	14.1	14.1	14.1	14.1	14.0
1939	14.0	13.9	13.9	13.8	13.8	13.8	13.8	13.8	14.1	14.0
1940	13.9	14.0	14.0	14.0	14.0	14.1	14.0	14.0	14.0	14.0
1941	14.1	14.1	14.2	14.3	14.4	14.7	14.7	14.9	15.1	15.3
1942	15.7	15.8	16.0	16.1	16.3	16.3	16.4	16.5	16.5	16.7
1943	16.9	16.9	17.2	17.4	17.5	17.5	17.4	17.3	17.4	17.4
1944	17.4	17.4	17.4	17.5	17.5	17.6	17.7	17.7	17.7	17.7
1945	17.8	17.8	17.8	17.8	17.9	18.1	18.1	18.1	18.1	18.1
1946	18.2	18.1	18.3	18.4	18.5	18.7	19.8	20.2	20.4	20.8
1947	21.5	21.5	21.9	21.9	21.9	22.0	22.2	22.5	23.0	23.0
1948	23.7	23.5	23.4	23.8	23.9	24.1	24.4	24.5	24.5	24.4
1949	24.0	23.8	23.8	23.9	23.8	23.9	23.7	23.8	23.9	23.7
1950	23.5	23.5	23.6	23.6	23.7	23.8	24.1	24.3	24.4	24.6
1951	25.4	25.7	25.8	25.8	25.9	25.9	25.9	25.9	26.1	26.2
1952	26.5	26.3	26.3	26.4	26.4	26.5	26.7	26.7	26.7	26.7
1953	26.6	26.5	26.6	26.6	26.7	26.8	26.8	26.9	26.9	27.0
1954	26.9	26.9	26.9	26.8	26.9	26.9	26.9	26.9	26.8	26.8
1955	26.7	26.7	26.7	26.7	26.7	26.7	26.8	26.8	26.9	26.9
1956	26.8	26.8	26.8	26.9	27.0	27.2	27.4	27.3	27.4	27.5
1957	27.6	27.7	27.8	27.9	28.0	28.1	28.3	28.3	28.3	28.3
1958	28.6	28.6	28.8	28.9	28.9	28.9	29.0	28.9	28.9	28.9
1959	29.0	28.9	28.9	29.0	29.0	29.1	29.2	29.2	29.3	29.4

1960	29.3	29.4	29.4	29.5	29.5	29.6	29.6	29.6	29.6	29.8
1961	29.8	29.8	29.8	29.8	29.8	29.8	30.0	29.9	30.0	30.0
1962	30.0	30.1	30.1	30.2	30.2	30.2	30.3	30.3	30.4	30.4
1963	30.4	30.4	30.5	30.5	30.5	30.6	30.7	30.7	30.7	30.8
1964	30.9	30.9	30.9	30.9	30.9	31.0	31.1	31.0	31.1	31.1
1965	31.2	31.2	31.3	31.4	31.4	31.6	31.6	31.6	31.6	31.7
1966	31.8	32.0	32.1	32.3	32.3	32.4	32.5	32.7	32.7	32.9
1967	32.9	32.9	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7
1968	34.1	34.2	34.3	34.4	34.5	34.7	34.9	35.0	35.1	35.3
1969	35.6	35.8	36.1	36.3	36.4	36.6	36.8	37.0	37.1	37.3
1970	37.8	38.0	38.2	38.5	38.6	38.8	39.0	39.0	39.2	39.4
1971	39.8	39.9	40.0	40.1	40.3	40.6	40.7	40.8	40.8	40.9
1972	41.1	41.3	41.4	41.5	41.6	41.7	41.9	42.0	42.1	42.3
1973	42.6	42.9	43.3	43.6	43.9	44.2	44.3	45.1	45.2	45.6
1974	46.6	47.2	47.8	48.0	48.6	49.0	49.4	50.0	50.6	51.1
1975	52.1	52.5	52.7	52.9	53.2	53.6	54.2	54.3	54.6	54.9
1976	55.6	55.8	55.9	56.1	56.5	56.8	57.1	57.4	57.6	57.9
1977	58.5	59.1	59.5	60.0	60.3	60.7	61.0	61.2	61.4	61.6
1978	62.5	62.9	63.4	63.9	64.5	65.2	65.7	66.0	66.5	67.1
1979	68.3	69.1	69.8	70.6	71.5	72.3	73.1	73.8	74.6	75.2
1980	77.8	78.9	80.1	81.0	81.8	82.7	82.7	83.3	84.0	84.8
1981	87.0	87.9	88.5	89.1	89.8	90.6	91.6	92.3	93.2	93.4
1982	94.3	94.6	94.5	94.9	95.8	97.0	97.5	97.7	97.9	98.2
1983	97.8	97.9	97.9	98.6	99.2	99.5	99.9	100.2	100.7	101.0
1984	101.9	102.4	102.6	103.1	103.4	103.7	104.1	104.5	105.0	105.3
1985	105.5	106.0	106.4	106.9	107.3	107.6	107.8	108.0	108.3	108.7
1986	109.6	109.3	108.8	108.6	108.9	109.5	109.5	109.7	110.2	110.3
1987	111.2	111.6	112.1	112.7	113.1	113.5	113.8	114.4	115.0	115.3
1988	115.7	116.0	116.5	117.1	117.5	118.0	118.5	119.0	119.8	120.2
1989	121.1	121.6	122.3	123.1	123.8	124.1	124.4	124.6	125.0	125.6
1990	127.4	128.0	128.7	128.9	129.2	129.9	130.4	131.6	132.7	133.5
1991	134.6	134.8	135.0	135.2	135.6	136.0	136.2	136.6	137.2	137.4
1992	138.1	138.6	139.3	139.5	139.7	140.2	140.5	140.9	141.3	141.8
1993	142.6	143.1	143.6	144.0	144.2	144.4	144.4	144.8	145.1	145.7
1994	146.2	146.7	147.2	147.4	147.5	148.0	148.4	149.0	149.4	149.5
1995	150.3	150.9	151.4	151.9	152.2	152.5	152.5	152.9	153.2	153.7
1996	154.4	154.9	155.7	156.3	156.6	156.7	157.0	157.3	157.8	158.3
1997	159.1	159.6	160.0	160.2	160.1	160.3	160.5	160.8	161.2	161.6
1998	161.6	161.9	162.2	162.5	162.8	163.0	163.2	163.4	163.6	164.0
1999	164.3	164.5	165.0	166.2	166.2	166.2	166.7	167.1	167.9	168.2
2000	168.8	169.8	171.2	171.3	171.5	172.4	172.8	172.8	173.7	174.0
2001	175.1	175.8	176.2	176.9	177.7	178.0	177.5	177.5	178.3	177.7
2002	177.1	177.8	178.8	179.8	179.8	179.9	180.1	180.7	181.0	181.3
2003	181.7	183.1	184.2	183.8	183.5	183.7	183.9	184.6	185.2	185.0
2004	185.2	186.2	187.4	188.0	189.1	189.7	189.4	189.5	189.9	190.9
2005	190.7									

U.S. Department of Labor
Bureau of Labor Statistics
Washington, D.C. 20212
Consumer Price Index

All Urban Consumers - (CPI-U)
U.S. City Average
All Items
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NOV.	DEC.	SEMIANNUAL 1ST HALF	SEMIANNUAL 2ND HALF	AVG.	PERCENT CHANGE DEC-DEC	PERCENT CHANGE AVG-AVG
10.1	10.0			9.9		
10.2	10.1			10.0	1.0	1.0
10.3	10.3			10.1	2.0	1.0
11.5	11.6			10.9	12.6	7.9
13.5	13.7			12.8	18.1	17.4
16.3	16.5			15.1	20.4	18.0
18.5	18.9			17.3	14.5	14.6
19.8	19.4			20.0	2.6	15.6
17.4	17.3			17.9	-10.8	-10.5
16.8	16.9			16.8	-2.3	-6.1
17.3	17.3			17.1	2.4	1.8
17.2	17.3			17.1	0.0	0.0
18.0	17.9			17.5	3.5	2.3
17.7	17.7			17.7	-1.1	1.1
17.3	17.3			17.4	-2.3	-1.7
17.2	17.1			17.1	-1.2	-1.7
17.3	17.2			17.1	0.6	0.0
16.4	16.1			16.7	-6.4	-2.3
14.7	14.6			15.2	-9.3	-9.0
13.2	13.1			13.7	-10.3	-9.9
13.2	13.2			13.0	0.8	-5.1
13.5	13.4			13.4	1.5	3.1
13.8	13.8			13.7	3.0	2.2
14.0	14.0			13.9	1.4	1.5
14.5	14.4			14.4	2.9	3.6
14.0	14.0			14.1	-2.8	-2.1
14.0	14.0			13.9	0.0	-1.4
14.0	14.1			14.0	0.7	0.7
15.4	15.5			14.7	9.9	5.0
16.8	16.9			16.3	9.0	10.9
17.4	17.4			17.3	3.0	6.1
17.7	17.8			17.6	2.3	1.7
18.1	18.2			18.0	2.2	2.3
21.3	21.5			19.5	18.1	8.3
23.1	23.4			22.3	8.8	14.4
24.2	24.1			24.1	3.0	8.1
23.8	23.6			23.8	-2.1	-1.2
24.7	25.0			24.1	5.9	1.3
26.4	26.5			26.0	6.0	7.9
26.7	26.7			26.5	0.8	1.9
26.9	26.9			26.7	0.7	0.8
26.8	26.7			26.9	-0.7	0.7
26.9	26.8			26.8	0.4	-0.4
27.5	27.6			27.2	3.0	1.5
28.4	28.4			28.1	2.9	3.3
29.0	28.9			28.9	1.8	2.8
29.4	29.4			29.1	1.7	0.7

29.8	29.8			29.6	1.4	1.7
30.0	30.0			29.9	0.7	1.0
30.4	30.4			30.2	1.3	1.0
30.8	30.9			30.6	1.6	1.3
31.2	31.2			31.0	1.0	1.3
31.7	31.8			31.5	1.9	1.6
32.9	32.9			32.4	3.5	2.9
33.8	33.9			33.4	3.0	3.1
35.4	35.5			34.8	4.7	4.2
37.5	37.7			36.7	6.2	5.5
39.6	39.8			38.8	5.6	5.7
40.9	41.1			40.5	3.3	4.4
42.4	42.5			41.8	3.4	3.2
45.9	46.2			44.4	8.7	6.2
51.5	51.9			49.3	12.3	11.0
55.3	55.5			53.8	6.9	9.1
58.0	58.2			56.9	4.9	5.8
61.9	62.1			60.6	6.7	6.5
67.4	67.7			65.2	9.0	7.6
75.9	76.7			72.6	13.3	11.3
85.5	86.3			82.4	12.5	13.5
93.7	94.0			90.9	8.9	10.3
98.0	97.6			96.5	3.8	6.2
101.2	101.3			99.6	3.8	3.2
105.3	105.3	102.9	104.9	103.9	3.9	4.3
109.0	109.3	106.6	108.5	107.6	3.8	3.6
110.4	110.5	109.1	110.1	109.6	1.1	1.9
115.4	115.4	112.4	114.9	113.6	4.4	3.6
120.3	120.5	116.8	119.7	118.3	4.4	4.1
125.9	126.1	122.7	125.3	124.0	4.6	4.8
133.8	133.8	128.7	132.6	130.7	6.1	5.4
137.8	137.9	135.2	137.2	136.2	3.1	4.2
142.0	141.9	139.2	141.4	140.3	2.9	3.0
145.8	145.8	143.7	145.3	144.5	2.7	3.0
149.7	149.7	147.2	149.3	148.2	2.7	2.6
153.6	153.5	151.5	153.2	152.4	2.5	2.8
158.6	158.6	155.8	157.9	156.9	3.3	3.0
161.5	161.3	159.9	161.2	160.5	1.7	2.3
164.0	163.9	162.3	163.7	163.0	1.6	1.6
168.3	168.3	165.4	167.8	166.6	2.7	2.2
174.1	174.0	170.8	173.6	172.2	3.4	3.4
177.4	176.7	176.6	177.5	177.1	1.6	2.8
181.3	180.9	178.9	180.9	179.9	2.4	1.6
184.5	184.3	183.3	184.6	184.0	1.9	2.3
191.0	190.3	187.6	190.2	188.9	3.3	2.7

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-26)
CTIA Wireless Survey

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-26

CTIA - the Wireless Association's Annualized Wireless Industry Survey Results, December 1985 – December 2004 Reflecting Domestic U.S. Commercially-Operational Cellular, ESMR and PCS Providers, p.2 @ http://www.ctia.org/research_statistics/statistics/index.cfm/AID/10030.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 34
Company/ Alltel
Witness: David C. Blessing (DCB-26)
Date: 12/01/05

Background on CTIA's Semi-Annual Wireless Industry Survey

CTIA-The Wireless Association™'s Semi-annual wireless industry survey develops industry-wide information drawn from operational member and non-member wireless service providers. It has been conducted since January 1985, originally as a cellular-only survey instrument, and now including PCS and ESMR providers. No break-out of results specific to PCS or ESMR is performed at this time.

The information solicited from the service providers includes: cumulative capital investment, direct employment, number of cell sites, total service revenues, roaming revenues as a subset of total service revenues, the average local monthly bill, and the average length of call. The average local monthly bill is developed on a weighted basis, to avoid skewing the figures. It is not an average of averages. No adjustments are made to these figures.

The CTIA survey also develops information on the number of reported wireless service subscribers for the responding systems, and an estimated total subscriber figure (taking into account non-responding systems). Because the CTIA survey is a voluntary survey, it cannot compel responses from wireless carriers. However, the survey has an excellent response rate. For the December 31, 2004, installment of the semi-annual survey, CTIA received responses from companies serving 95.4 percent of wireless subscribers.

Because not all systems do respond, CTIA develops an estimate of total subscribership. The estimated subscriber figure is developed by determining the identity and character of non-responding markets (*i.e.*, RSA/MSA or equivalent-market designation, age of system, market population), and using a surrogate penetration rate applicable to similar, known systems to derive probable subscribership. These numbers are then summed with the reported subscriber numbers to reach the total estimated subscriber figures. No carrier-specific or market-specific information is maintained as a result of the survey. All such information is aggregated by an independent accounting firm to a nationwide level. The underlying source material for the survey is then destroyed per confidentiality agreements.

The following tables and charts reflect selected top-of-the-line data. Complete results of CTIA's semi-annual survey are available for purchase in the comprehensive report, *CTIA's Wireless Industry Indices: 1985 – 2004*, including data on prepaid and toll revenues, subscriber usage, investment, digital subscribership, and other operational indicators and ratios. The report is available for a member price of $850 and a non-member price of $1,075. Subsequent copies are available to members at $475 each and to non-members at $535 each. Annual subscriptions are available at a member price of $1,445 and non-member price of $1,825. The report may be ordered by contacting research@ctia.org or by ordering directly from CTIA's eStore at http://www.ctia.org/store/categoryresults.cfm?category_id=15. Order forms are also available on CTIA's web site, at http://files.ctia.org/pdf/Indices_Order_Form.pdf

CTIA-THE WIRELESS ASSOCIATION™'S
ANNUALIZED WIRELESS INDUSTRY SURVEY RESULTS
DECEMBER 1985 – DECEMBER 2004
Reflecting Domestic U.S. Commercially-Operational Cellular, ESMR and PCS Providers

Date	Estimated Subscribers	Annualized Total Service Revenues ($000)	Annualized Roamer Revenues ($000)	Cell Sites	Employees	Cum Capital Investment ($000)	Average Local Monthly Bill	Avg. Local Call Length (Min)
1985	340,213	$482,428	N/A	913	2,727	$911,167	N/A	N/A
1986	681,825	$823,052	N/A	1,531	4,334	$1,436,753	N/A	N/A
1987	1,230,855	$1,151,519	N/A	2,305	7,147	$2,234,635	$96.83	2.33
1988	2,069,441	$1,959,548	N/A	3,209	11,400	$3,274,105	$98.02	2.26
1989	3,508,944	$3,340,595	$294,567	4,169	15,927	$4,480,142	$89.30	2.48
1990	5,283,055	$4,548,820	$456,010	5,616	21,382	$6,281,596	$80.90	2.20
1991	7,557,148	$5,708,522	$703,651	7,847	26,327	$8,671,544	$72.74	2.38
1992	11,032,753	$7,822,726	$ 973,871	10,307	34,348	$11,262,070	$68.68	2.58
1993	16,009,461	$10,892,175	$1,361,613	12,824	39,810	$13,956,366	$61.49	2.41
1994	24,134,421	$14,229,922	$1,830,782	17,920	53,902	$18,938,678	$56.21	2.24
1995	33,785,661	$19,081,239	$2,542,570	22,663	68,165	$24,080,467	$51.00	2.15
1996	44,042,992	$23,634,971	$2,780,935	30,045	84,161	$32,573,522	$47.70	2.32
1997	55,312,293	$27,485,633	$2,974,205	51,600	109,387	$46,057,910	$42.78	2.31
1998	69,209,321	$33,133,175	$3,500,469	65,887	134,754	$60,542,774	$39.43	2.39
1999	86,047,003	$40,018,489	$4,085,417	81,698	155,817	$71,264,865	$41.24	2.38
2000	109,478,031	$52,466,020	$3,882,981	104,288	184,449	$89,624,387	$45.27	2.56
2001	128,374,512	$65,316,235	$3,752,826	127,540	203,580	$105,030,101	$47.37	2.74
2002	140,766,842	$76,508,187	$3,895,512	139,338	192,410	$126,922,347	$48.40	2.73
2003	158,721,981	$87,624,093	$3,766,267	162,986	205,629	$145,866,914	$49.91	3.07
2004	182,140,362	$102,121,210	$4,210,331	175,725	226,016	$173,793,507	$50.64	3.05

CTIA'S SEMI-ANNUAL WIRELESS INDUSTRY SURVEY RESULTS

June 1985 - December 2004

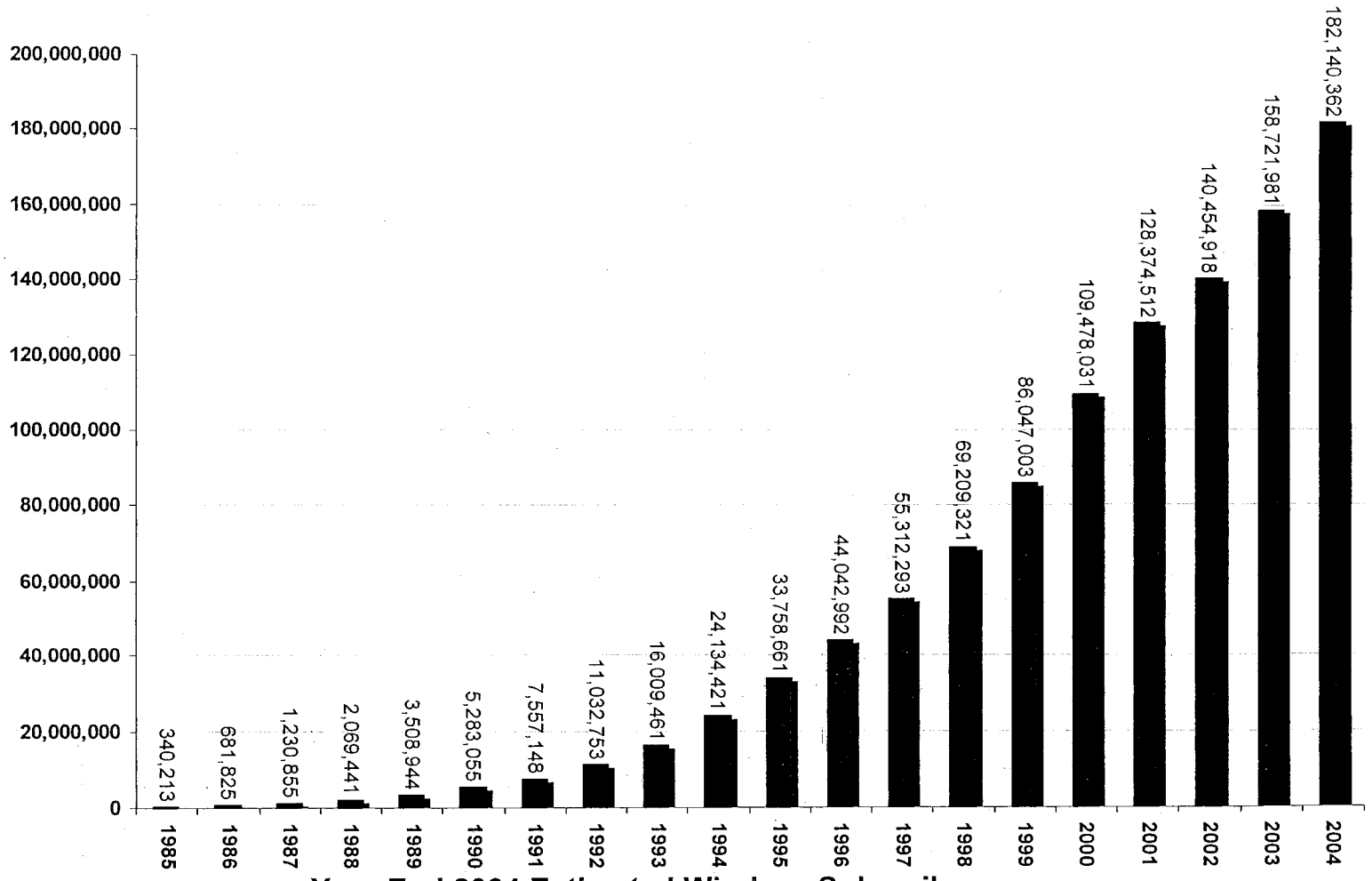
Date	Estimated Subscribers	Total Six-Month Revenues ($000)	Roamer Service Revenues ($000)	Cell Sites	Employees	Cum Capital Investment ($000)	Average Local Monthly Bill	Avg. Local Call Length (Min)	Avg. Roam Call Length
Jan-85	91,600	$178,085	N/A	346	1,404	$354,760	N/A	N/A	N/A
Jun-85	203,600	$176,231	N/A	599	1,697	$588,751	N/A	N/A	N/A
Dec-85	340,213	$306,197	N/A	913	2,727	$911,167	N/A	N/A	N/A
Jun-86	500,000	$360,585	N/A	1,194	3,556	$1,140,163	N/A	N/A	N/A
Dec-86	681,825	$462,467	N/A	1,531	4,334	$1,436,753	N/A	N/A	N/A
Jun-87	883,778	$479,514	N/A	1,732	5,656	$1,724,348	N/A	N/A	N/A
Dec-87	1,230,855	$672,005	N/A	2,305	7,147	$2,234,635	$96.83	N/A	N/A
Jun-88	1,608,697	$886,075	N/A	2,789	9,154	$2,589,589	$95.00	N/A	N/A
Dec-88	2,069,441	$1,073,473	$89,331	3,209	11,400	$3,274,105	$98.02	N/A	N/A
Jun-89	2,691,793	$1,406,463	$121,368	3,577	13,719	$3,675,473	$85.52	N/A	N/A
Dec-89	3,508,944	$1,934,132	$173,199	4,169	15,927	$4,480,142	$89.30	N/A	N/A
Jun-90	4,368,686	$2,126,362	$192,350	4,768	18,973	$5,211,765	$83.94	N/A	N/A
Dec-90	5,283,055	$2,422,458	$263,660	5,616	21,382	$6,281,596	$80.90	N/A	N/A
Jun-91	6,380,053	$2,653,505	$302,329	6,685	25,545	$7,429,739	$74.56	N/A	N/A
Dec-91	7,557,148	$3,055,017	$401,325	7,847	26,327	$8,671,544	$72.74	N/A	N/A
Jun-92	8,892,535	$3,633,285	$436,725	8,901	30,595	$9,276,139	$68.51	N/A	N/A
Dec-92	11,032,753	$4,189,441	$537,146	10,307	34,348	$11,262,070	$68.68	N/A	N/A
Jun-93	13,067,318	$4,819,259	$587,347	11,551	36,501	$12,775,967	$67.31	2.38	3.38
Dec-93	16,009,461	$6,075,916	$774,266	12,824	39,810	$13,956,366	$61.49	2.41	3.26
Jun-94	19,283,306	$6,519,031	$778,116	14,740	45,622	$16,107,921	$58.65	2.36	2.89

CTIA's SEMI-ANNUAL WIRELESS INDUSTRY SURVEY RESULTS

June 1985 - December 2004

Date	Estimated Subscribers	Total Six-Month Revenues ($000)	Roamer Service Revenues ($000)	Cell Sites	Employees	Cum Capital Investment ($000)	Average Local Monthly Bill	Avg. Local Call Length (Min)	Avg. Roam Call Length
Dec-94	24,134,421	$7,710,891	$1,052,666	17,920	53,902	$18,938,678	$56.21	2.24	2.85
Jun-95	28,154,414	$8,749,625	$1,120,337	19,844	60,689	$21,721,711	$52.45	2.27	2.74
Dec-95	33,758,661	$10,330,614	$1,422,233	22,663	68,165	$24,080,467	$51.00	2.15	2.79
Jun-96	38,195,466	$11,194,247	$1,314,943	24,802	73,365	$26,707,046	$48.84	2.24	2.8
Dec-96	44,042,992	$12,440,724	$1,465,992	30,045	84,161	$32,573,522	$47.70	2.32	3.14
Jun-97	48,705,553	$13,134,551	$1,392,440	38,650	97,039	$37,454,294	$43.86	2.25	2.95
Dec-97	55,312,293	$14,351,082	$1,581,765	51,600	109,387	$46,057,910	$42.78	2.31	2.94
Jun-98	60,831,431	$15,286,660	$1,584,891	57,674	113,111	$50,178,812	$39.88	2.34	2.65
Dec-98	69,209,321	$17,846,515	$1,915,578	65,887	134,754	$60,542,774	$39.43	2.39	3.11
Jun-99	76,284,753	$19,368,304	$1,922,416	74,157	141,929	$66,782,827	$40.24	2.40	2.96
Dec-99	86,047,003	$20,650,185	$2,163,001	81,698	155,817	$71,264,865	$41.24	2.38	3.11
Jun-00	97,035,925	$24,645,365	$1,971,625	95,733	159,645	$76,652,358	$45.15	2.48	3.19
Dec-00	109,478,031	$27,820,655	$1,911,356	104,288	184,449	$89,624,387	$45.27	2.56	3.23
Jun-01	118,397,734	$30,905,721	$1,727,058	114,059	186,317	$99,728,695	$45.56	2.62	3.01
Dec-01	128,374,512	$34,410,513	$2,205,768	127,540	203,580	$105,030,101	$47.37	2.74	2.94
Jun-02	134,561,370	$36,707,086	$1,846,267	131,350	186,956	$118,418,677	$47.42	2.60	3.07
Dec-02	140,766,842	$39,801,101	$2,049,245	139,338	192,410	$126,922,347	$48.40	2.73	3.11
Jun-03	148,065,824	$41,384,171	$1,825,243	147,719	187,169	$134,147,049	$49.46	2.63	3.15
Dec-03	158,721,981	$46,239,922	$1,941,024	162,986	205,629	$145,866,914	$49.91	3.07	3.45
Jun-04	169,467,393	$49,275,671	$2,015,799	174,368	212,186	$156,700,380	$49.49	3.06	3.45
Dec-04	182,140,362	$52,845,539	$2,194,532	175,725	226,016	$173,793,507	$50.64	3.05	2.80

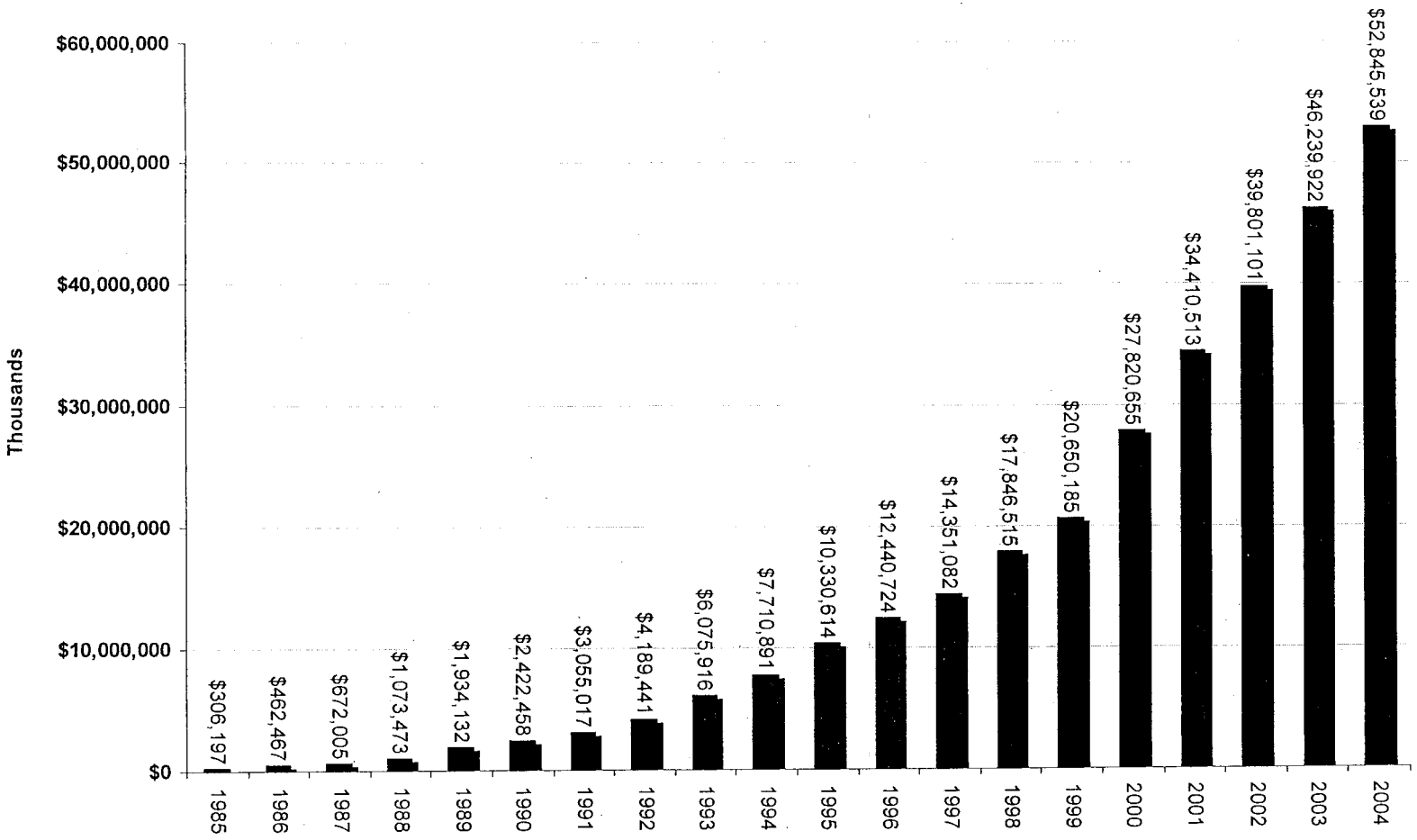
Estimated Subscribers



Year-End 2004 Estimated Wireless Subscribers
Second Highest Growth Year Ever: Up 23.4 Million from 2003

Source: CTIA

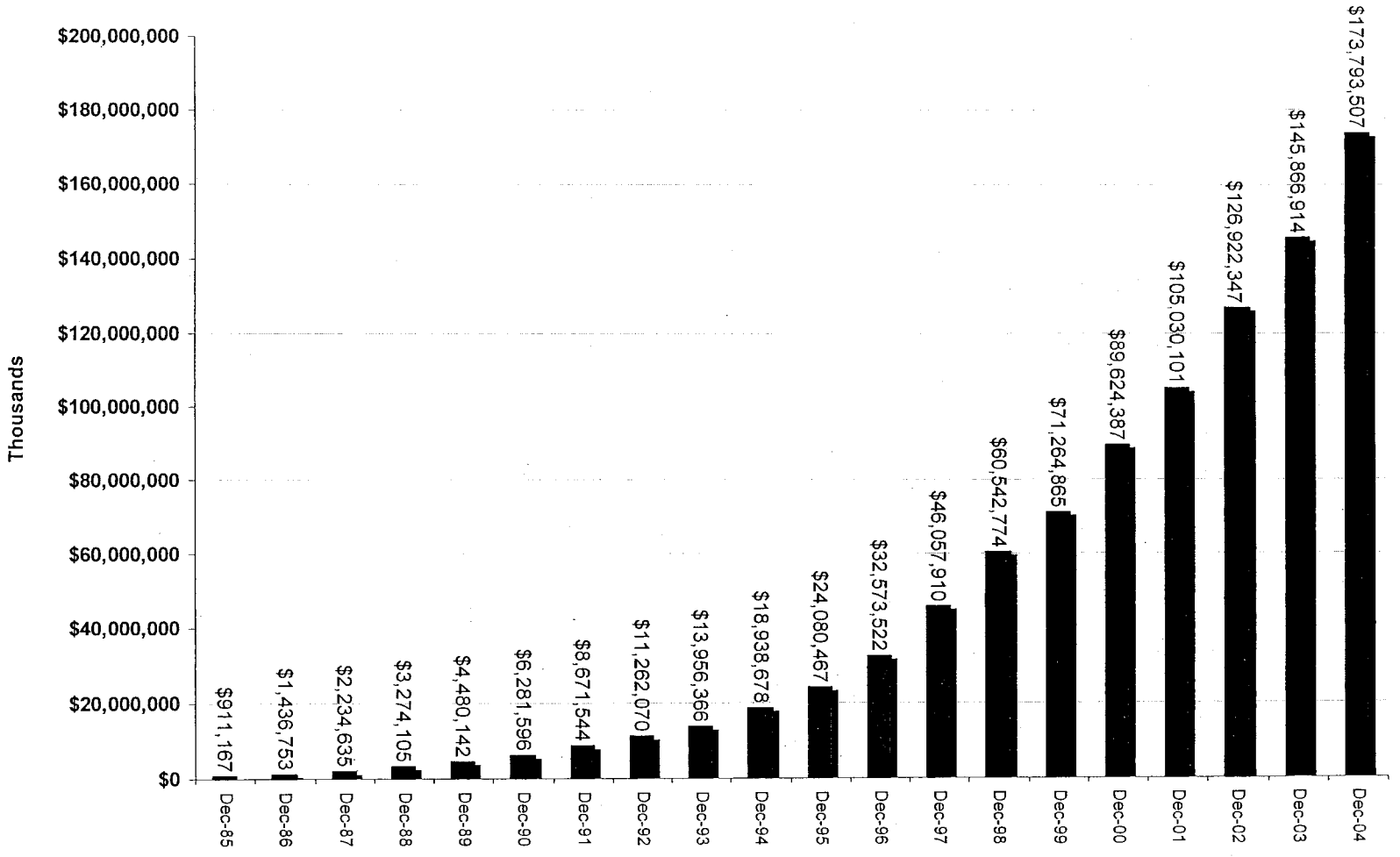
Total Six-Month Service Revenues (000s)



Total Wireless Service Revenues Reach Almost $53 billion for Last Six Months of 2004
- Total Annual Revenues Reach More Than $102 Billion for 2004

Source: CTIA

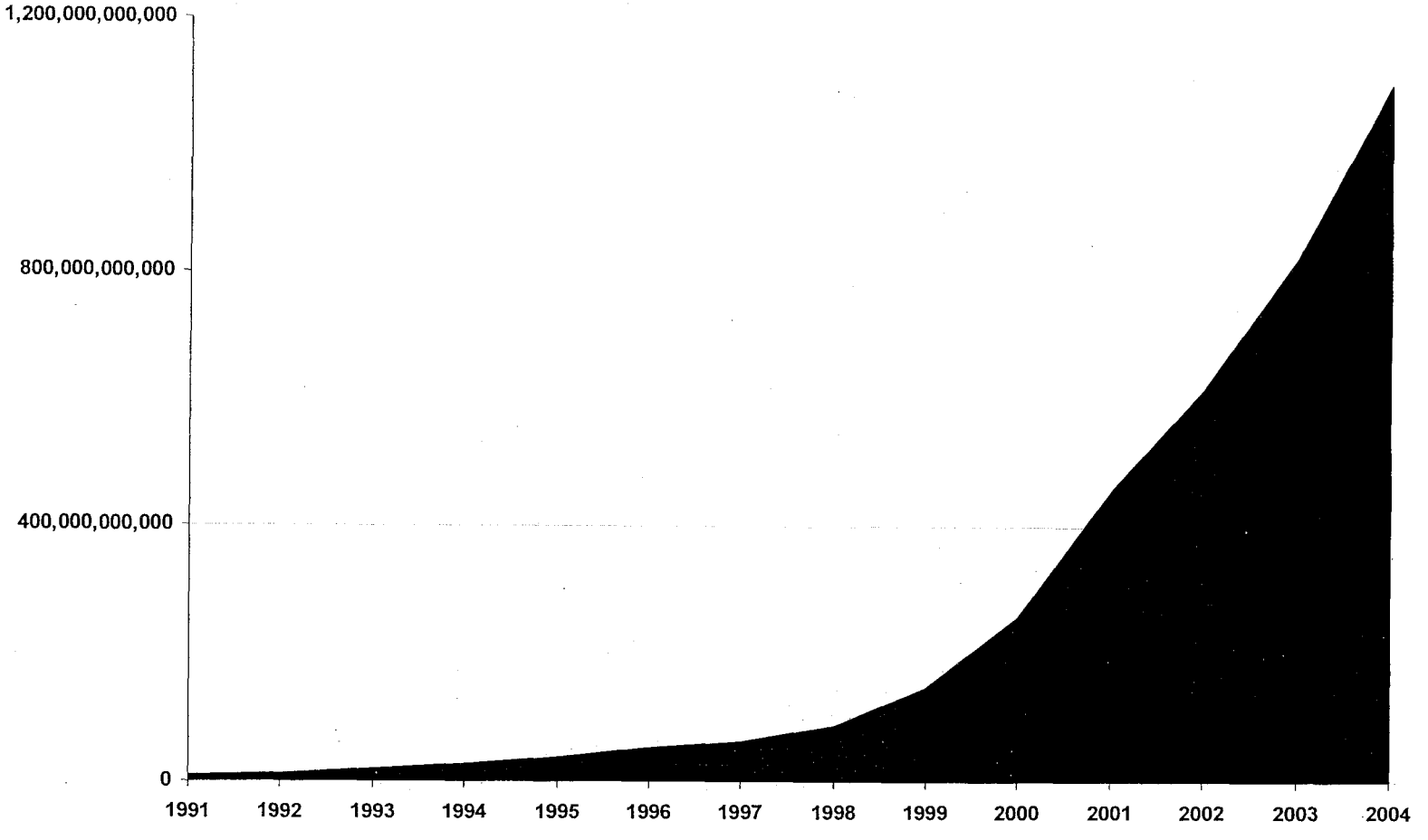
Cumulative Capital Investment (000s)



Cumulative Capital Investment Reaches Almost $174 Billion at Year-End 2004 – Most Recent Year Is More Than First Ten Years of Wireless Investment

Source: CTIA

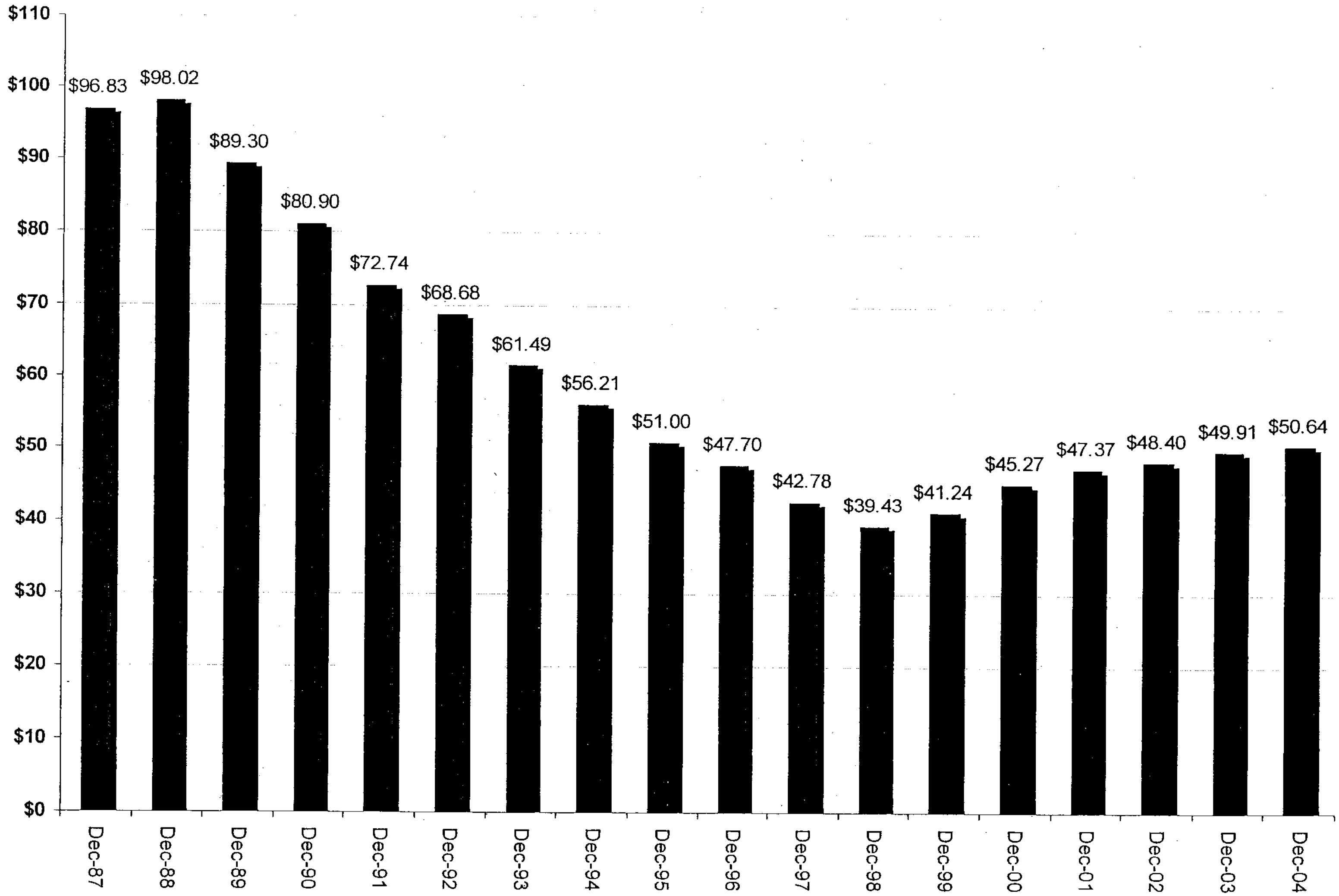
Reported Wireless Minutes of Use Exceed One Trillion in 2004



Reported Wireless Minutes of Use Grow 32.7 Percent Year-over-Year

Source: CTIA

Average Local Monthly Bill

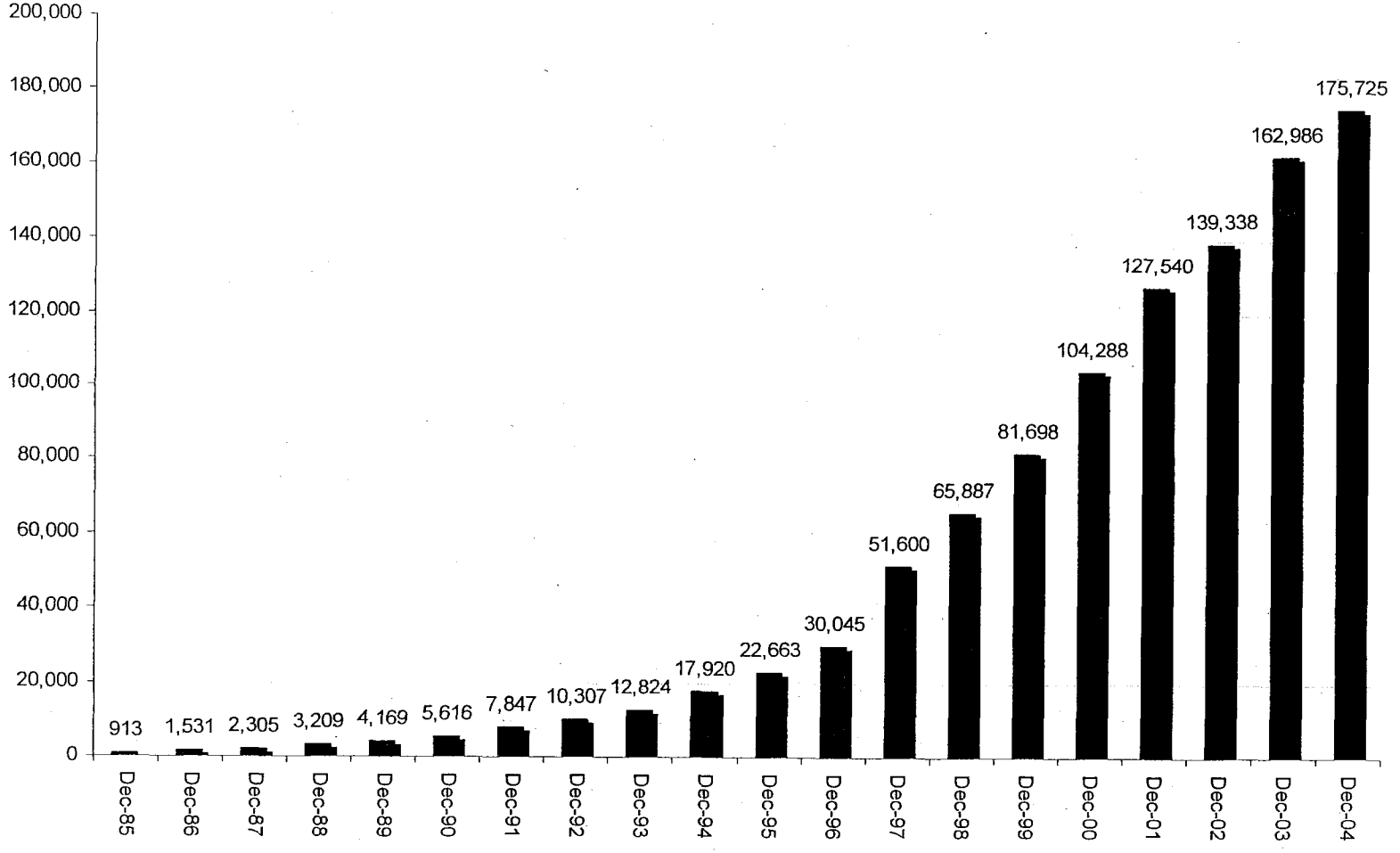


Average Local Monthly Bill Grows 1.5 Percent Year-over-Year - Average Customer Usage Grows 15 Percent

Source : CTIA

9

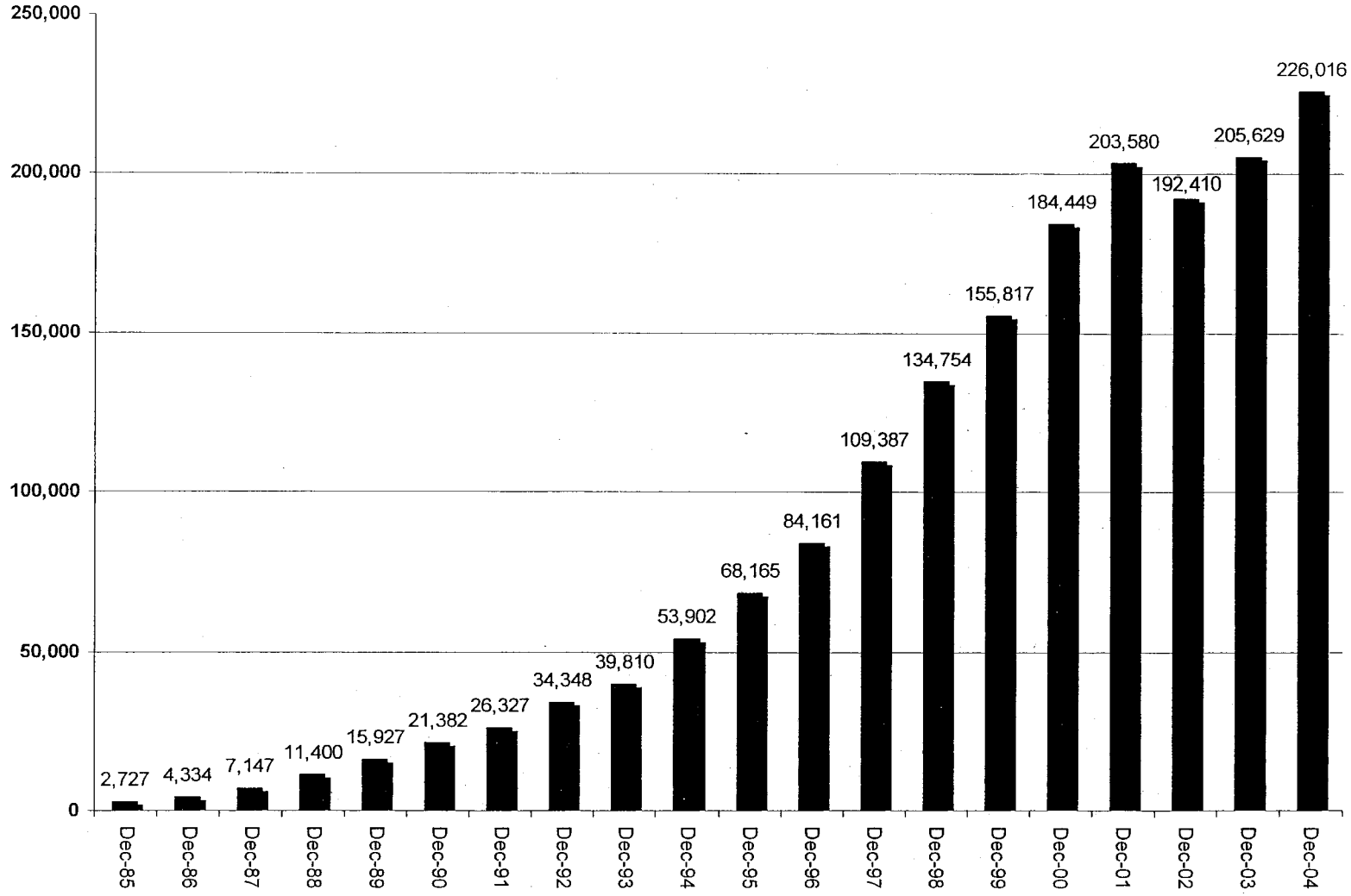
Cell Sites



Operational Cell Sites Grow 7.8 Percent Year-over-Year

Source: CTIA

Direct Carrier Employees



Direct Wireless Carrier Employment Grows 10 Percent Year-over-Year
Direct Employment Exceeds 226,000 at Year-End 2004

Source: CTIA

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-27)
NCTA Research

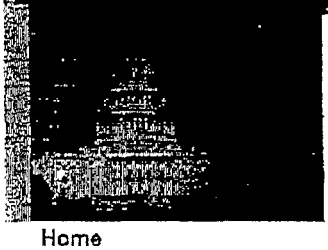
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-27

National Cable Television Association at http://www.ncta.com. State date from Nielsen Media Research representing January 2005 TV households and September 2004 cable TV households.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 35
Company/ Alltel
Witness: David C. Blessing (DCB-27)
Date: 12/01/05



August 19, 2005

INDUSTRY OVERVIEW

Industry Overview > Statistics & Resources > **State Data**

Home
Industry Calendar
Industry Overview
- Cable Operators
- Cable Program Networks
- Statistics & Resources
  - Top 25 Cable Systems
  - Top 25 MSOs
  - Top 20 Cable Networks
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- Cable Theft

Broadband Services
Media Center
Legislative & Regulatory
Cable in the Classroom
Industry Initiatives
The National Show
Walter Kaitz Foundation
About NCTA
Careers
Frequently Asked Questions
Privacy Policy
Your Feedback

WHO IS MY CABLE COMPANY?

State	TV Households (January 2005)	Cable TV Households (September 2004)	Cable TV Households as a Percent of TV Households
Alabama	1,798,760	1,188,130	66%
Alaska	196,670	117,370	60%
Arizona	2,085,820	1,229,910	59%
Arkansas	1,072,600	625,610	58%
California	11,766,500	7,609,900	65%
Colorado	1,737,310	994,180	57%
Connecticut	1,345,110	1,183,930	88%
Delaware	319,010	263,850	83%
District of Columbia	239,850	169,600	71%
Florida	6,839,580	5,069,700	74%
Georgia	3,234,400	2,242,790	69%
Hawaii	417,120	374,620	90%
Idaho	496,870	210,400	42%
Illinois	4,671,870	3,160,120	68%
Indiana	2,418,800	1,460,430	60%
Iowa	1,164,870	697,410	60%
Kansas	1,049,950	709,410	68%
Kentucky	1,665,530	1,076,970	65%
Louisiana	1,698,280	1,240,180	73%
Maine	551,890	371,800	67%
Maryland	2,098,760	1,562,470	74%
Massachusetts	2,492,940	2,141,280	86%
Michigan	3,912,480	2,602,900	67%
Minnesota	1,977,140	1,141,100	58%
Mississippi	1,074,160	617,020	57%
Missouri	2,255,660	1,164,880	52%
Montana	362,840	186,130	51%
Nebraska	684,560	479,760	70%
Nevada	850,570	597,200	70%
New Hampshire	505,190	409,580	81%
New Jersey	3,165,640	2,704,270	85%
New Mexico	703,490	376,890	54%
New York	7,045,410	5,462,100	78%
North Carolina	3,328,830	2,158,360	65%

North Dakota	259,050	166,530	64%
Ohio	4,561,000	3,205,280	70%
Oklahoma	1,372,070	816,330	59%
Oregon	1,368,110	816,180	60%
Pennsylvania	4,856,600	3,829,270	79%
Rhode Island	428,900	341,240	80%
South Carolina	1,649,800	1,037,340	63%
South Dakota	296,970	190,590	64%
Tennessee	2,331,000	1,488,930	64%
Texas	7,906,070	4,454,720	56%
Utah	745,550	326,710	44%
Vermont	246,260	136,610	55%
Virginia	2,879,740	1,960,740	68%
Washington	2,318,850	1,575,100	68%
West Virginia	752,880	544,350	72%
Wisconsin	2,189,310	1,288,080	59%
Wyoming	199,550	125,770	63%
TOTAL	109,590,170	73,904,020	67%

Source: Nielsen Media Research. Reprinted with permission.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-28)
NCTA Status

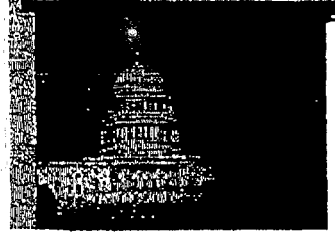
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-28

National Cable Television Association at http://www.ncta.com; Industry Overview, Statistics & Resources, revenue data provided by Kagan Research LLC.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 36
Company/ Alltel
Witness: David C. Blessing (DCB-28)
Date: 12/01/05



August 19, 2005

INDUSTRY OVERVIEW

Industry Overview > **Statistics & Resources**

Top 25 Cable Systems | Top 25 MSOs | Top 20 Cable Program Networks

Industry Statistics	
State Data	N/A
Basic Cable Customers (February 2005)[1]	73,219,360
US Television Households (January 2005)[1]	109,590,170
Cable Penetration of TV Households (February 2005)[1]	66.8%
Occupied Homes Passed by Cable (December 2004)[6]	108,200,000
Occupied Homes Passed as a Percent of TV Households (December 2004)[6]	97%
Cable Headends (November 2004)[1]	9,009
Premium Cable Units[6]	50,190,000
Cable Systems[3]	8,875
Annual Cable Revenue (2004)[6]	$57.6 billion
Total Advertising Revenue (2004)[6]	$18.8 billion
Annual Franchise Fees Paid by Cable Industry (2003)[5]	$2.4 billion
Cable's Private Investment	
Cable Industry Construction/Upgrade Expenditures in 2004[6]	$9.5 billion
Schools Served by *Cable in the Classroom* (December, 2001)[7]	81,654
Students Served by *Cable in the Classroom*, (December, 2001)[7]	43,676,577
Broadband Deployment	
Digital Cable Customers (December 31, 2004)[5]	25,000,000
Cable Modem Customers (December 31, 2004)[5]	21,000,000
Homes Passed by Cable Modem Service (September 30, 2004)[8]	105,000,000
Residential Cable Telephony Customers (December 31, 2004)[5]	3,000,000
Homes Passed by HDTV Service (January 2005)[5]	92,000,000
Value and Prices	
National Video Programming Services/Networks (December 2004)[4]	390
Major Television Awards Won by Cable in 2003[9]	46
Average Monthly Price for Expanded Basic Programming Packages (December 2004)[6]	$38.23
Competition	
Subscribers to Non-Cable Multichannel Video Program Distributors (MVPDs) (September 2004)[5]	26.87 million

[1] A.C. Nielsen Media Research

[redacted]

[3] Warren Communications News, Inc.
[4] National Cable & Telecommunications Association
[5] National Cable & Telecommunications Association
[6] Kagan Research LLC
[7] Cable in the Classroom
[8] Morgan Stanley, "Bundling and the Battle for Basic," October 12, 2004.
[9] Academy of Television Arts & Sciences; and Grady College of Journalism, University of Georgia

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-29)
Trends in Telephone Service

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-29

"Trends in Telephone Service" - May 2004; FCC Industry Analysis and Technology Division Wireline Competition Bureau, Table 2.5. (June 30, 2003 data).

NEWS

Federal Communications Commission
445 12th Street, S.W.
Washington, D. C. 20554

News Media Information 202 / 418-0500
Internet: http://www.fcc.gov
TTY: 1-888-835-5322

FOR IMMEDIATE RELEASE:
May 6, 2004

NEWS MEDIA CONTACT:
Mike Balmoris at (202) 418-0253
Email: michael.balmoris@fcc.gov

FEDERAL COMMUNICATIONS COMMISSION RELEASES STUDY ON TELEPHONE TRENDS

Washington, D.C. – Today, the Federal Communications Commission (FCC) released its *Trends in Telephone Service* report, which summarizes in one convenient reference information published in various reports over the course of the past year. The report provides answers to some of the most frequently asked questions about the telephone industry asked by consumers, members of Congress, other government agencies, telecommunications carriers, and members of the business and academic communities.

This year's report includes 29 new charts graphically depicting the reference information. Highlights from the report include:

Advanced Telecommunications Services

- Advanced services lines (exceeding 200 kbps in both directions) connecting homes and businesses to the Internet increased by 32% during the first half of 2003, from 12.4 million lines in service as of December 31, 2002 to 16.3 million as of June 30, 2003.

- Among advanced services lines, ADSL lines increased by 16%, from 2.2 million to 2.5 million, during the first six months of 2003, compared to a 43% increase, from 8.3 million to 11.9 million, for cable modem lines.

Local Telephone Competition

- As of June 2003, competitive local exchange carriers (CLECs) provided 26.9 million (or 14.7%) of the approximately 183 million nationwide local telephone lines that were in service to end users as opposed to 24.8 million (or 13.2%) of nationwide local telephone lines as of December 2002.

- About one-fourth of CLEC end-user lines are served over local loop facilities that the CLECs own.

- Incumbent local exchange carriers (ILECs) reported providing other carriers about 2.2 million lines on a resale basis as of June 30, 2003, compared to about 2.7 million lines six months earlier. ILECs provided about 17.2 million unbundled network element (UNE) loops as of June 30, 2003, compared to about 14.5 million loops six months earlier.

Table 2.5
High-Speed Lines by Technology as of June 30, 2003
(Over 200 kbps in at Least One Direction)

	ADSL	Coaxial Cable	Other [1]	Total
Alabama	70,639	181,338	31,969	283,946
Alaska	14,013	*	*	61,121
Arizona	77,368	319,272	48,539	445,179
Arkansas	44,801	*	*	128,311
California	1,715,998	1,395,435	345,248	3,456,681
Colorado	126,189	181,766	36,199	344,154
Connecticut	124,742	227,658	15,786	368,186
Delaware	*	*	3,386	55,030
District. of Columbia	39,471	*	*	70,715
Florida	644,621	867,513	141,403	1,653,537
Georgia	368,372	289,922	109,766	768,060
Hawaii	*	*	*	*
Idaho	19,382	*	*	64,353
Illinois	363,733	383,069	124,667	871,469
Indiana	85,968	122,338	28,724	237,030
Iowa	39,386	111,748	11,123	162,257
Kansas	50,839	181,437	16,520	248,796
Kentucky	75,316	23,672	22,606	121,594
Louisiana	100,919	189,920	24,851	315,690
Maine	11,052	*	*	85,615
Maryland	126,873	306,442	36,511	469,826
Massachusetts	207,344	564,961	48,830	821,135
Michigan	135,360	543,336	58,059	736,755
Minnesota	115,244	255,988	29,138	400,370
Mississippi	33,650	50,234	12,227	96,111
Missouri	138,046	191,658	37,274	366,978
Montana	13,119	*	*	28,023
Nebraska	18,285	111,903	10,984	141,172
Nevada	47,934	*	*	209,732
New Hampshire	17,823	95,612	5,444	118,879
New Jersey	211,540	690,620	65,680	967,840
New Mexico	26,948	38,004	7,017	71,969
New York	438,241	1,401,322	157,777	1,997,340
North Carolina	161,642	454,272	65,390	681,304
North Dakota	11,593	10,066	3,815	25,474
Ohio	243,689	508,458	69,788	821,935
Oklahoma	78,248	*	*	234,823
Oregon	95,654	197,794	25,012	318,460
Pennsylvania	230,322	482,471	59,483	772,276
Puerto Rico	*	*	*	32,063
Rhode Island	*	*	4,391	105,610
South Carolina	52,667	185,083	25,118	262,868
South Dakota	8,637	9,156	4,223	22,016
Tennessee	92,777	277,579	44,357	414,713
Texas	597,447	888,595	124,893	1,610,935
Utah	65,648	*	*	135,007
Vermont	15,072	*	*	39,773
Virgin Islands	*	0	*	*
Virginia	114,797	404,616	48,100	567,513
Washington	225,377	313,915	38,086	577,378
West Virginia	*	73,263	*	90,173
Wisconsin	84,100	287,519	30,376	401,995
Wyoming	5,503	*	*	17,507
Nationwide	7,675,114	13,684,225	2,100,332	23,459,671

* Data withheld to maintain firm confidentiality.

[1] Other includes wireline technologies other than asymmetric digital subscriber line (ADSL), optical fiber to the subscriber's premises, satellite, and (terrestrial) fixed wireless systems.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of June 30, 2003* (December 2003).

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-30)
Illinois Order

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-30

Second Interim Order On Rehearing Before the Illinois Commerce Commission; In re: Illinois Independent Telephone Association Petition for initiation of an investigation of the necessity of and the establishment of a Universal Service Support Fund in accordance with Section 13-301(d) of the Public Utilities Act; Docket 00-0233; Consolidated with Illinois Commerce Commission On Its Own Motion Investigation into the necessity of and, if appropriate, the establishment of a Universal Support Fund pursuant to Section 13-301(d) of the Public Utilities Act; Docket 00-0335; dated: March 13, 2002.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 38
Company/ Alltel
Witness: David C. Blessing (DCB-30)
Date: 12/01/05

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Illinois Independent Telephone Association	:	
Petition for initiation of an investigation of the necessity of and the establishment of a Universal Service Support Fund in accordance with Section 13-301(d) of the Public Utilities Act.	:	00-0233 (Consolidated)
Illinois Commerce Commission On Its Own Motion	:	00-0335
Investigation into the necessity of and, if appropriate, the establishment of a Universal Support Fund pursuant to Section 13-301(d) of the Public Utilities Act.	:	

SECOND INTERIM ORDER ON REHEARING

DATED: March 13, 2002

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STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Illinois Independent Telephone Association	:	
Petition for initiation of an investigation of the necessity of and the establishment of a Universal Service Support Fund in accordance with Section 13-301(d) of the Public Utilities Act.	:	**00-0233** **(Consolidated)**
Illinois Commerce Commission On Its Own Motion	:	**00-0335**
Investigation into the necessity of and, if appropriate, the establishment of a Universal Support Fund pursuant to Section 13-301(d) of the Public Utilities Act.	:	

SECOND INTERIM ORDER ON REHEARING

By the Commission:

I. BACKGROUND AND PROCEDURAL HISTORY

On September 18, 2001, the Commission entered the Second Interim Order (the "Order") in the above-captioned dockets relating to the establishment of a Universal Service Fund. On October 18, 2001, applications for rehearing were filed by IITA, AT&T and a number of Intervenors. On October 19, 2001, an application for rehearing and a motion for clarification were filed by Harrisonville Telephone Company (which is also an Invervenor, but represented by different counsel) and Staff, respectively. The application for rehearing filed by AT&T was denied in its entirety while four matters raised in the remaining applications and in the Staff motion were designated for rehearing.

The first issue involves the establishment of the "affordable rate." The Order adopted Verizon's proposed affordable rate, which was found to be $22.23. The rate was based upon Verizon's basic service rate of $16.99, plus an adder for usage. Verizon witness Beauvais testified that he used a benchmark of 100 minutes per month as the usage factor, which resulted in an additional $5.24 being added to the $16.99,

resulting in the $22.23 composite rate. The rehearing applications all posited that Verizon's tarriffed usage rate is $.034 per minute, which should have lead to a usage adjustment of $3.40 and an affordable rate of $20.39. Rehearing was granted on this issue.

The next issue upon which the remaining applications agreed was the necessity for further clarification of the "single access" line basis for establishing the level of the USF. Staff noted that the Verizon exhibit made adjustments using the IITA base point level of funding, which was based upon funding of all access lines, from which Staff inferred that a different result might obtain if the single line determination remains intact. Staff suggested two avenues for the Commission to follow. Either modify the order to include all access lines or take additional evidence on the number and nature of primary and secondary lines in both the residential and business context, since this was not a matter of record in this docket. Additional evidence was taken on the impact of the single line/all access line dichotomy in the rehearing.

The final issue raised by IITA and Intervenors involved the Commission decision to not allow a phase in of the rate increases authorized by the Order. Noting that the majority of the parties supported some type of phase in to address issues of rate shock, the Commission determined that additional evidence should be taken on this issue.

II. AFFORDABLE RATE

A. IITA Position

The first issued addressed by the IITA concerned the computation of the Verizon affordable rate, specifically the usage adder. IITA witness Schoonmaker testified that the correct computation of the comparable Verizon rate based upon the record of the proceeding is $20.39, not $22.23. The witness based this conclusion upon the fact that Verizon witness Beauvais, in the record below, testified that he computed his proposed affordable rate by adding the average small exchange Verizon basic rate to a benchmark of local calls at the appropriate usage rate. Dr. Beauvais testified be used 100 calls per month as the usage benchmark and that the Verizon usage rate is $.034 per call. The IITA further notes that the uncontested evidence below was that Verizon's basic rate for residential and small business customers without usage is $16.99. From this the IITA concludes that a basic mathematical computation leads to the conclusion the when the usage charge for 100 local calls is correctly computed at $3.40, and this product is summed with the basic rate of $16.99, the total comparable affordable rate is $20.39.

B. Verizon Position

Verizon filed a pleading with the Commission indicating it would not challenge the IITA's assertion that the correct calculation stemming from Dr. Beauvais' suggested approach to calculating the affordable rate should result in the rate being set at $20.39.

C. Intervenors Position

The Intervenors, after adducing evidence that in many of their exchanges monthly usage is well below 100 calls per month (which would lead to a lower affordable rate), generally agreed that the $20.39, affordable rate represents the most accurate calculation of the Verizon proposal.

D. Ameritech Position

Ameritech urges the Commission to reaffirm the determination made below and establish the affordable rate at $22.23 because the funded carriers have failed to demonstrate that the $5.24 additive for local usage, utilized by the Commission, was inappropriate. Ameritech first notes that the $5.24 local usage figure was determined by using an average of 100 local calls per month. Ameritech's view is that the IITA's argument is predicated on Verizon's method of calculation, particularly the fact that Verizon took into account local calls, that are completed within a customer's home exchange, as well as calls that terminate in exchanges outside of the customer's home exchange, but are nevertheless classified as local. Such calls are generally referred to as Extended Area Service, or EAS, calls. It is Ameritech's view that for purposes of determining the affordable rate in this proceeding, Verizon's Extended Area Service calls were properly included as local calls and, therefore, both local and Extended Area Service Calls should be considered when determining the average usage used in Verizon's calculations.

Ameritech also put on testimony to the effect that in exchanges where Ameritech offers flat rate calling, usage tends to outstrip usage in exchanges where usage sensitive service if offered. From this Ameritech argues that it is likely that the rural exchanges under consideration here experience more usage than the Verizon exchanges studied by Dr. Beauvais, where usage was generally based upon usage sensitive charges as opposed to the flat rate service offered by the IITA members.

E. Staff Position

Staff argues that both rates are flawed and, after again arguing for an affordable rate based upon distinctions between business and residential customers, urges the Commission to settle upon the original $22.23 as the "less flawed" of the "fundamentally flawed" $20.39 rate or the "deeply flawed" $22.23 rate. Staff's criticism of both rates are based upon its perception that the rates are less than an average small company telephone subscriber is likely to pay for basic monthly telephone service. In addition, Staff argues that Verizon's proposal did not address Verizon's EAS service, which is not flat rated but tariffed at $.03 per connection and $.018 per minute of use. Because, in its view, the $22.23 rate understates subscriber costs less, it is the more favorable outcome.

F. Replies

1. IITA

In response to Staff, the IITA notes that the only empirical evidence adduced by any party was the usage figures introduced by several IITA members that indicated usage below 100 minutes per-month, despite the presence of flat rated service.

In response to Ameritech, the IITA notes that the only evidence it put on in support of its claim that the 100 minute per month claim might overstate usage was anecdotal evidence from Ohio and Indiana that has no bearing on the issue before the Commission.

Finally the IITA notes that Verizon, the sponsor of the original proposal adopted by the Commission has indicated that it does not oppose the $20.39 rate as most representative of the costs incurred by a Verizon customer taking local service in an exchange comparable to those served by the IITA companies.

2. Intervenors

In response to Ameritech, Intervenors argue Ameritech's position on the usage rates of flat rate local calling customer only bolsters the position of the small companies because the small companies have flat rate service and even under those circumstances, the uncontradicted record indicates that small companies make less than 100 calls per month, on average, per line. Intervenors go on to argue that the usage figures of Intervenors' customers (which are substantially less than 100 calls per line per month) reflect lower numbers than Verizon's customers. Significantly, Ameritech does not recognize that even at 100 calls, on average, per month, the usage rate for Verizon of 3.4 cents per call with the 100-call rate equals only $20.39.

Intervenors further posit that for Ameritech to argue that it is "very possible" that there is a higher average than 100 calls per month by the small companies' customers is nothing more than unsubstantiated speculation. Based on this evidence, it is not only possible but highly probable that all small companies have lower calling volumes than Verizon's customers do. According to Intervenors, Ameritech's argument must be rejected because the $22.23 affordable rate is without substantial evidence.

In response to Staff, the Intervenors point out that their position is even more speculative than Ameritech's in asserting that Verizon's "estimate" of 100 calls per month was for residential usage only. Intervenors argue that Staff's position that business subscribers would make more calls and that Verizon's $20.39 rate is understated is mere surmise. In addition, Staff completely ignores Verizon's admission in its "Notice" that its existing rural rate for local service could not be any greater than $20.39. Intervenors also note that Staff also ignores the evidence presented by Intervenors that Intervenors' customers (using all lines, both business and residential) consistently resulted in usage under 100 calls per month.

In response to Staff assertions concerning Verizon's EAS calls, the Intervenors note that Verizon's EAS is not truly extended area service but rather reduced local toll. Intervenors note that this is a scope of service issue which Verizon did not argue. Verizon's subscribers have a much larger calling area and the subscribers in most independent companies will be paying a much higher interexchange call rate or toll call rather than Verizon's EAS users. Intervenors conclude that Verizon's reduced local toll charges cannot be considered in the calculation of the affordable rate.

3. Staff

Staff responds to Intervenors arguments relating to the contention that Verizon's local calling volumes include EAS calls that would be priced at toll rates for many rural companies and the assertion that many small companies' average monthly local call count per subscriber line is below 100. Staff asserts that the arguments are completely irrelevant because they confuse the value to the customer of the telecommunications service provided, with what constitutes the affordable rate a subscriber can pay for those services. In Staff's view the arguments do not address the issue in this case, which is not how much value USF eligible company subscribers get from telephone service, or whether this value is greater or less than the value Verizon subscribers get for their telephone service. The issue in this proceeding is how much USF eligible company subscribers can afford to spend on telephone service, regardless of whether those services are greatly valuable to them, or have little value to them. If similarly situated Verizon subscribers can afford to pay a certain rate for local telephone service – regardless of value – then USF eligible subscribers can "afford" to pay the same the rate for telephone service.

G. Commission Analysis and Conclusion on Affordable Rate

The Commission has reviewed the evidence and arguments of the parties and concludes that the affordable rate should be set at the Verizon proposed rate, which, if calculated correctly in the first instance would have been $20.39. Verizon witness Beauvais undertook the calculation of an affordable rate by attempting to compare the rates and usage patterns of an average customer in an average IITA exchange with an average Verizon customer in a similar exchange. All parties agree that this required setting two rates. First the rate for a Verizon customers basic access to the system, which all parties agree was correctly set at $16.99. Setting the second rate was more problematic because of disparities between the manner in which usage is charged in the two systems. In the IITA service territories, usage is generally, if not exclusively, flat rated. In Verizon's service territory, usage is billed on a minute of use basis. Faced with this discrepancy in billing regimes, Dr. Beauvais attempted to develop an adder that would estimate the additional expenses a user would incur if usage was billed on a minute of use basis. Dr. Beauvais estimated that a typical user would incur approximately 400 minutes of use, which would correspond to 100 calls per month. Then, using a $.0524 per call connection fee across the 100 calls, Dr. Beauvais arrived

at his $5.24 adder, which, when added to the $16.99 monthly fee resulted in a $22.23 affordable rate.

This calculation was called into question by Harrisonville witness Hoops, who presented uncontradicted evidence that Verizon's actual per call rate is $.034 per call. Of particular note here is that no party has contradicted any of these assertions. Verizon's monthly access rate is $16.99 and its per call rate is $.034. The only matter of contention concerns Dr. Beauvais' estimate of 100 calls per month. None of the parties contesting this matter have produced any evidence that this estimate was or is unreasonable. Ameritech's assertions that flat rate customers in Ohio and Indiana are on the phone more than usage sensitive customers in Illinois is unsupported by any comparison of rates or demographics from which it could be concluded that its proposed usage adjustment is as reasonable as Verizon's. Staff's approach is largely a reiteration of its original position that the Commission should take perceived usage disparities between business and residential lines into consideration when setting the affordable rate and does little to advance the debate here since it has previously been rejected. Because we have been provided with no evidence or argument to conclude anything other than that Verizon's original proposed affordable rate was calculated based upon a misunderstanding of its per call rate, the Commission concludes that the calculation should have reflected the $.034 per call rate across 100 monthly calls, resulting in an affordable rate of $20.39.

III. NUMBER OF LINES ELIGIBLE FOR SUPPORT

A. IITA Position

The ITTA states the issues are as follows: (1) whether support should be provided to all lines or based upon the assumption of a primary residence line and a primary business line and; (2) whether the individual company qualifying amounts should be reduced if support were only provided based upon those assumptions.

The IITA first contends that, if the Commission were to limit support to a subset of lines, the proper mechanism to be applied in determining the total eligibility amount should be based upon a comparison between the cost of service and the affordable rate--not to the rate-of-return limited amount. The record evidence in Phase 2 demonstrated that the economic costs of providing the supported services for all lines exceeded the affordable rate in the aggregate for all companies by as high as $73.6 million, based upon the analysis presented by the IITA, to a low of approximately $30 million using the HAI default assumptions.

The IITA goes on to note that the Commission, rather than establishing the fund based entirely upon the cost of service studies, applied a rate-of-return limitation on the qualifying amounts of each company seeking funding. This limitation would (and should) allow each company (after rate increases up to the affordable rate level) the opportunity to earn an appropriate rate-of-return at a level recommended by the Staff but limit support so the company does not recover above that amount.

After reaching this conclusion, the Commission went on to find that support should also be limited to a single residential and a single business line. Following a review of the rehearing applications and motions for clarification, the Commission agreed to take additional evidence on the issue of the single line decision and its potential impact, if any, on the size of the fund. The IITA quantified the numbers and percentages of primary residential lines and single business lines for each small company previously qualifying for support. Individual company percentages of primary residential and single business lines to total lines vary from the low 70% area to the mid 90% area with the average for the companies being 86.6% of the total lines. The IITA asserts that if the number of supported lines were reduced to 86.6%, this would reduce the IITA's original qualifying amount from approximately $73.6 million to $63.7 million and the default amount of $30 million to approximately $26 million, amounts still well in excess of the Commission's imposed rate-of-return limitation qualifying amount for the individual companies of $9,858,975 at the $20.39 affordable rate. The IITA argues that if the qualifying amount was reduced (because of a qualifying line limitation or for any other reason) from the rate-of-return limit, the immediate impact would be to limit the company's earnings level to an amount below the established rate-of-return and deny the company the opportunity to earn the established rate-of-return.

The IITA goes on to note that, if a company were to respond by increasing rates for all lines, by definition and as a matter of mathematics, it would be increasing the rate for all lines to an amount in excess of the Commission established affordable rate level. Such results would be inconsistent with the legislative intent to provide support so rates could be maintained at affordable prices.

Mr. Schoonmaker, on behalf of the IITA, presented an alternative rate design with proposed rate increases in his testimony and schedules on rehearing. IITA Exhibit 2, Attachment 6 contains the individual company impacts and associated rate increases if each qualifying company's funding was limited to primary residential lines and a single business line and rates for all "non-primary" lines were increased to amounts necessary to allow the company (at least, in theory) to earn its rate-of-return. On Attachment 6, Column (d) sets forth the funding reduction associated with the line limitation; Column (e) sets forth the number of non-primary lines; and Column (f) sets forth the amount of increase, per month, in addition to and above an affordable rate of $20.23 that would be required to generate revenues sufficient to allow the company to earn its rate-of-return. While the amounts vary from company to company, customers of 23 companies would have potential additional increases of more than $5.00 per line, per month; and customers of 16 companies would face potential increases of more than $10.00 per line, per month. Attachment 6 also demonstrates the extreme effect on customers having certain companies, such as Home Telephone Company where the necessary additional increase above the $20.23 rate would be $52.17 per line resulting in monthly rates for non-qualifying lines of $72.40.

As Mr. Schoonmaker observed at page 15 of IITA Exhibit 2 on Rehearing, such a rate application would have substantial consequences on both the small company

and its customers. Customer complaints and adverse reactions are obvious on their face and would likely result in customers reducing the number of non-qualifying lines. With the customers' discontinuance of lines, the company would in turn not achieve the revenue recovery contemplated by the potential rate increase with the potential "death spiral" effect of necessitating further rate increases that would only, in turn, result in the cancellation of yet additional lines. Customers would be severely impacted economically by these rate increases or adversely affected by the reduction in customer service levels as a result of their cancellation of lines they are now using.

IITA Exhibit #2, Attachment 7 sets forth the governmental non-primary access lines for a subset of qualifying companies and indicates that some 17.7% of non-primary access lines are used by governmental units, such as towns, police departments, fire departments and schools. As Mr. Schoonmaker observed at page 16 of IITA Exhibit #2 on Rehearing, if these governmental bodies were forced to discontinue or limit their use of non-qualifying lines because of budgetary constraints, the ramifications could be far-reaching.

For all of the above reasons, the IITA urges that there should be no reduction in the qualifying amount of individual companies that was developed based upon the rate-of-return analysis and limitation resulting from any decision or limitation with regard to qualifying line issues.

B. Staff Position

Staff asserts that the USF should be calculated based upon all lines not just the primary residential or business line. Staff notes that all parties seem to agree that calculating the USF based upon primary lines will create administrative and enforcement difficulties, will increase rates for many business and residential subscribers and result in more "deadweight loss" for society as a whole.

In terms of administrative difficulty, Staff notes that many USF eligible companies define non-primary lines based upon the number of lines assigned to individual accounts and that if a household has two lines, each listed on a separate account, each line will be deemed to be primary, and each will be eligible for USF subsidies. On the other hand, if a household has two lines listed on the same account then one will be deemed primary and the other non-primary, and the non-primary line will not be eligible for USF subsidies. This will tempt households who have two lines listed on the same account to open another account so they can avoid paying the higher charges associated with a second residential line. This type of "gaming" will lead to enforcement problems and lead to the perception of unfairness since some households with two lines could end up having both lines subsidized while other households with two lines could end up paying a higher rate for the second line.

Staff goes on to note that other USF eligible companies define non-primary lines as second and additional lines to a particular billing address. This method of identifying a non-primary line could cause some households to be "overcharged" for

their line if two or more households reside at one location. For example, a farm couple could have elderly parents or a "handyman" living with them. The parents or "handyman" may require a separate line for privacy or other reasons. But under the billing address definition of a non-primary residential line, second and additional lines would be charged at the higher non-primary rate, even though these second and additional lines are functioning as primary lines for the second household residing at a location. This definition of non-primary lines could lead to attempts by households to set up separate billing addresses for each line in an attempt to avoid the higher charges for the second line. More fundamentally, the inconsistency with which carriers identify non-primary lines (some use the billing address method, some use the account method and some both) demonstrates that the administration of USF distributions will be inconsistent between companies.

The same type of administrative problem could occur if subsidies are not provided to all lines of an individual business subscriber. For example, a business with two or more lines, could try to set up separate accounts for each line in an attempt to avoid paying higher charges associated with the second line. In addition, the Commission's rationale for denying subsidies to second residential lines — second lines are discretionary — does not necessarily apply to multi-line business users. Multi-line businesses likely subscribe to a second line because second lines are necessary to run the business and not just because they are convenient to have.

Staff also notes that, under the funding methodology adopted by the Commission, the USF funding amount a company is eligible to receive is calculated by subtracting the company's current revenues from the revenues the company would be entitled to earn if it earned its cost of capital ("revenue requirement"). If primary lines are the only lines subsidized, then the revenue requirement figure will need to be adjusted downward by the ratio of primary to total lines. This type of adjustment implicitly assumes that all lines, primary and non-primary, cost the telephone company the same amount to provide. If, as the evidence seems to show in this docket, primary lines are more expensive to provide than non-primary lines then this methodology will underfund the qualifying companies.

Staff goes on to posit that subscribers who have a second line might also experience rate shock if USF funding is denied to the second line. IITA's analysis suggests that monthly rates for a second line (either business or residential) would have to rise to about $75 for Moultrie and Home telephone company subscribers, $60 for Madison telephone company subscribers and $50 for Egyptian telephone company subscribers. At these rates some subscribers will cancel service resulting in lost revenue while costs will remain virtually unchanged.

Finally, limiting subsidies to primary lines will result in more "deadweight loss" activity (i.e. diverting resources from production to procurement) by inducing subscribers to disguise secondary lines as primary lines, in order to receive subsidies. All the time and effort associated with this endeavor (setting up separate accounts for each line, setting up separate billing addresses etc), and all the time and effort

associated with trying to prevent such switching is, in Staff's view, a waste from a social point of view because these endeavors would result in resources being diverted from producing goods and services and being instead directed towards procuring subsidies and enforcing subsidy guidelines. Staff counsels against adopting a policy that would likely result in large "deadweight losses."

In contrast to other proposals, applying the subsidy to all lines will eliminate, or at least minimize, the problems discussed above. If all lines are subsidized, customers would not be motivated to try and minimize their costs by characterizing second lines as primary lines. Thus, the carriers would waste less time and capital on prevention, inspection and re-programming. This savings, would translate into potential savings for the local carrier's customers, if not for all the telecommunications consumers in Illinois who pay into Illinois' USF.

C. Intervenor's Position

Intervenors first note that the Commission's methodology for calculating the USF fund utilizes rate of return principals and is, in the first instance, based upon a carrier's revenue requirement not its access line count. This methodology flows from the Commission's prior recognition of the fact that the cost of providing service in rural exchanges exceeds the revenue received for those services, leading to the need for a universal service fund. Intervenors conclude that limiting the size of the fund to a subset of lines that make up the firm's revenue requirement would, *per force,* result in the companies receiving less than their revenue requirement. Intervenors note that Mr. Trimble of Verizon testified that funding levels based upon the funding of all access lines came closer to recovering an independent company's actual costs than any model and that the rate of return limitation was a "rational limit."

Intervenors also note that the FCC funds all access lines (T.1032) and urge the Commission to do likewise. They further note that 47 USC 254(f) restricts state authority on universal service as follows:

> A State may adopt regulations not inconsistent with the Commission's rules to preserve and advance universal service. * * * A state may adopt regulations to provide for additional definitions and standards to preserve and advance universal service within that state only to the extent that such regulations adopt additional specific, predictable, and sufficient mechanisms to support such definitions or standards that do not rely on or burden Federal universal service support mechanisms. (Emphasis added.)

Intervenors argue that the FCC has preempted the field and Illinois cannot adopt a calculation of the USF that is inconsistent with the FCC's rules. Illinois may adopt rules that expand universal service but not restrict it. The preemption doctrine provides that federal law overrides state laws on the same subject and it would be inconsistent

with Section 254(f) and the FCC's rules and procedures for the Illinois Commerce Commission to exclude secondary lines.

In addition to preemption arguments, the Intervenors point to a number of untoward consequences they assert will occur in the event the Commission limits the calculation of the USF to primary lines. Intervenors note that, on average, the rural companies have approximately 14% of their total lines as secondary lines and that basing the USF on primary lines would, mathematically, reduce the size of the USF and reduce the funding levels to all qualifying companies. Intervenors note that the evidence shows that the funding deficiency caused by lack of funding for secondary lines could be recovered in at least two ways: raising the rates of all customers and lines, which would minimize the impact on secondary lines but would cause all customers to pay rates above the affordable rate level; or, raising the rates charged for secondary lines.

Intervenors note that Verizon witness Trimble testified that the price of single-line service should be "capped" at the price of the affordable rate. Even without support of secondary lines, Verizon agrees that it would be unreasonable for rural companies to spread the funding deficiency across all lines because to do so would require each company to charge more than the affordable rate, which is inconsistent with the entire concept of an "affordable rate." Following the second course would result in secondary line prices being substantially increased to the point that customers would not purchase secondary lines, thereby decreasing the total number of access lines and revenue of each company and increasing the funding needed to support primary lines. Intervenors point to the following results in the event prices for secondary lines were increased to recoup the funding shortfall. In Leaf River's case, an additional charge of $36.12 over and above its current rate of $24.93 for secondary lines would be required to make up the lost revenue, meaning a residential secondary line would cost $61.05 and a secondary business line would cost $65.64. Woodhull would have to charge a total of $26.09 for a secondary line. Oneida would have to charge $35.85 for a secondary line and New Windsor would have to charge $31.52 for a secondary line. Home Telephone would need to charge $52.17 for a second line.

Intervenors also argue that lack of funding of secondary lines would have a drastic impact on rural services. Viola has a school with 4 lines to the superintendent of schools and 3 lines to the Winola Elementary School, all at one "premise," which, based upon the concept of counting the number of lines at an address, would result in the school district paying the secondary line rate for 6 lines. In addition, Viola has a public library with 2 secondary lines, a volunteer fire department with 1 secondary line, 2 churches with a secondary line each, a post office with 2 secondary lines, and the village of Viola with 3 secondary lines. Mercer County Home Health Care, a part of the county hospital system, has 5 secondary lines. The Leaf River school has 5 secondary lines and its volunteer fire department has 6 secondary lines.

Montrose Mutual has three schools with a total of 10 secondary lines, two volunteer fire departments with 4 secondary lines, two churches with 1 secondary line each and the Village of Dieterich with 1 secondary line.

In New Windsor, the public library has 2 secondary lines, the volunteer fire department has 1 secondary line, the local churches have 4 secondary lines, and the Village has 2 secondary lines, all classified as business line accounts. All of these public or charitable entities face substantial rate increases if secondary lines are not supported. In Oneida the ROWVA Community School District grade school has 3 secondary lines and the attached high school has 4 secondary lines. Next door, the superintendent has 3 secondary lines, for a total of 8 secondary lines for the school district. The Oneida Altona Ambulance District has 1 secondary line, the volunteer fire department has 1 secondary line, as does the post office and a local church.

In Woodhull, the school district has 11 secondary lines, the public library has 4 secondary lines, the volunteer fire department 2 secondary lines, local churches have 2 secondary lines and the Village has 3 secondary lines.

In addition to these factual assertions, Intervenors argue that the Public Utilities Act requires a telephone company to furnish to all persons who apply therefor, and who are reasonably entitled thereto, suitable facilities without discrimination and without delay. *Barry v. Commonwealth Edison*, 374 Ill.473, 29 N.E.^{2d} 1014, 1016 (1940). 220 ILCS 5/8-101 states: Every public utility shall, upon reasonable notice, furnish to all persons who may apply therefor and be reasonably entitled thereto, suitable facilities and service, without discrimination and without delay. (Emphasis added.)

Therefore each company must furnish each applicant telephone service without discrimination and a higher charge to an applicant at the same address as another customer would be discriminatory and a denial of equal protection. There is no legal basis for the phone company to discriminate in its local rates between two accounts at the same location, each with good credit. To do so puts the company in jeopardy with serious legal challenges based upon race, gender, and age contrary to state and federal law.

For example, assume that a family has two access lines and both access lines are in the name of the husband. He is the customer. If the Commission fails to support secondary lines and the secondary line rate goes up (as it must necessarily do under either revenue recovery scenario), the husband could cancel his secondary line and the wife would come to the phone company and seek to establish an account in her name alone. Assuming she is credit worthy, she has every right to have phone service in her own account.

As the carrier of last resort, the phone company has no basis upon which to deny her an account in her name unless she has bad credit or has failed to pay the company previously. However, it is incredulous to suggest that the company indicate to the wife that merely because she is the second account to be established at the same

residence, she would have to pay several dollars more for the same service at the same location simply because she lives in the same home with her husband. However, if the wife left the husband and established an account in her own name at a separate location within the same exchange, she would get the benefit of the supported lower single-line rate. Intervenors argue that this disparity does not make sense and is simply bad policy. The same holds true with two sisters living together or an adult child living with a parent, any of whom may want the privacy of a secondary line or the use of a secondary line for high speed data.

Intervenors also take issue with the "primary/secondary" classification, arguing that a line is only "primary" as to a customer, it is not primary as to location. Every consumer in Illinois is entitled to establish telephone service with the local telephone company in his or her individual name without discrimination as to price for the same service to the same location. Failing to support secondary lines and forcing the companies to necessarily increase the charges for secondary lines would be illegal. 220 ILCS 5/9-101 states as follows:

> All rates or other charges made, demanded or received by any product or commodity furnished or to be furnished or for any service rendered or to be rendered shall be just and reasonable. Every unjust or unreasonable charge made, demanded or received for such product or commodity or service is hereby prohibited and declared unlawful. All rules and regulations made by a public utility affecting or pertaining to its charges to the public shall be just and reasonable. (Emphasis added.)

Public utilities are prohibited by law from discriminating or maintaining any unreasonable difference in rates as between localities. 220 ILCS 5/9-241 states as follows:

> No public utility shall, as to rates or other charges, services, facilities or in other respect, make or grant any preference or advantage to any corporation or person or subject any corporation or person to any prejudice or disadvantage. No public utility shall establish or maintain any unreasonable difference as to rates or other charges, services, facilities, or in any other respect, either as between localities or as between classes of service.

Sec. 9-241 specifically prohibits unreasonable differences in rates *as between localities* so a difference in rates for customers *at the same locality* for the same service is undoubtedly illegal.

Failing to support secondary lines would require local phone companies to discriminate against individual users at the same location for the same class of service without any knowledge as to the use that that line will be put to. All residential subscribers in a given exchange should pay the same rate just as all business subscribers should pay the same rate. However, by failing to fund secondary lines, the

Commission is encouraging, if not requiring, independent companies to charge more for secondary lines based solely on the fact that the service is at the same address, irrespective of whether the second or third line is paid for in the account of a different individual.

Intervenors also argue that failing to support second lines ignores the rate base element of the telephone carriers revenue requirement because telephone installations, as a matter of course contain enough cable pairs to establish more that one line per premise. When a customer orders a second line, no additional digging or cable installation is required because it has already been done and the costs incurred. The company simply activates the second pair of wires for a separate line number on the switch. Investment in the plant has already been made. Secondary lines are revenue enhancers to rural telephone companies, not cost causers, so they should be encouraged, not discouraged, especially since they reduce the revenue requirement of each company. If subscribers cancel secondary lines due to increase rates, the USF needs for those rural companies will go up.

The Commission's Order concluded that secondary lines were "discretionary services" and stated that merely because it is possible that end users would "falsely" identify additional lines as primary lines was not sufficient reason to subsidize secondary lines. The Commission's order erroneously assumes that it is "false" for more than one primary access line to exist at the same location.

Finally, Intervenors take issue with the policy underpinnings of the Commission's decision that only primary lines should be funded, which they characterize as resting upon a decision that low-income users in one area of the state should not subsidize high-income users in another area of the state. Intervenors first argue that there is no record support for the proposition that all or even most rural users are high-income earners. Intervenors also argue that this policy statement is inconsistent with Commission policy toward other subsidized programs. For example, ITAC subsidies are paid by all telephone customers and support services for the hearing impaired, with no consideration of the economic status of the payors or the recipients. Likewise, the telecommunications municipal infrastructure maintenance fee is a charge paid by low-income users and wealthy users alike, with no showing that the funds generated do not accrue more to benefit the wealthy than the poor. Interveners conclude that there are simply cases, such as this one, where the policy goals outweigh the costs, especially where the costs imposed (approximately $.078 per month per line) are so minimal.

D. Ameritech Position

Ameritech argues that USF support for secondary lines would be inappropriate because it would create an incentive for potential competitors to cream skim. Ameritech bases this assertion upon the premise that competitors usually target those customers where the most profit potential exists, i.e. multi-line business customers and residential customers with more services such as second and third lines. If those lines receive high cost fund support, and support is eventually available to competitive carriers as

well as the incumbents, the problem of uneven competitive entry would be exacerbated because competitors would be able to target the more profitable customers while being eligible to receive support for all of the lines to which the customers might subscribe.

E. Verizon Position

Verizon urges the Commission to reaffirm its decision that only primary residence lines and single business lines are eligible for support. Verizon notes that Section 13-301(d) of the Act specifically provides in pertinent part that:

> the Commission shall . . . (d) investigate the necessity of and, if appropriate, establish a universal service support fund from which local exchange telecommunications carriers . . . whose economic costs of providing services for which universal service support may be made available exceed the affordable rate established by the Commission for such services may be eligible to receive support.

Verizon asserts that the clear import of section 13-301(d) is that support is to be provided to services whose costs exceed the affordable rate. To that end, it is Verizon's position that only the primary residence line and a single business line are eligible for support. According to Verizon, the record here demonstrates that there are little or no costs associated with the provision of additional lines. Verizon points to testimony of various Intervenor witnesses that Verizon claims state that secondary access lines impose little or no cost on the companies. Moreover, as Verizon witness Dennis B. Trimble noted, Verizon customers should not be required to support discretionary services—especially where such services impose "zero" cost.

Verizon also disputes the claim that administrative difficulty in designating primary and secondary lines should effect any decision made herein based upon its reading of Section 13-301(d), which does not offer the IITA members excessive intrastate USF funding simply because of the difficulties associated with accounting for primary and secondary lines. The Act is clear that the Commission can designate what services are to be supported, and the cost for providing those eligible services must be greater than the affordable rate. In conclusion, Verizon asserts that the record on rehearing demonstrates that the Commission correctly found that only primary residence lines and single business lines are eligible for support.

F. Replies

1. Ameritech

Ameritech responded to the IITA, Intervenors and Staff noting that three general arguments were made: 1) the small companies cannot meet their revenue requirements unless they receive support for all access lines; 2) the FCC requires support for all access lines and thus the intrastate fund should also do so; and 3) it would be

burdensome and difficult, both administratively and from an enforcement perspective, if only primary residential lines and single business lines are covered.

In response to claims that if the qualifying amount for each company is reduced because of a limitation on the lines covered or for any other reason, the effect on the funded companies would be to reduce their earnings below their established rate of return levels, Ameritech urges first that this claim be scrutinized very closely by the Commission because what the IITA and the other funded companies are requesting is that their rate of return levels be met by the customers of the funding companies.

In response to claims that demand for second lines will diminish dramatically if they raise the prices and that the lack of funding of secondary lines would have a drastic impact on rural services, Ameritech opines that it is unlikely that the results would be so drastic. Ameritech Illinois' witness, Mr. O'Brien, pointed out in his testimony that there are numerous other ways that local exchange carriers can generate revenues. Mr. O'Brien suggested that a funded company could raise the rates on all of its access lines, instead of only raising the rates on the secondary lines, and collect those revenues from its own end user customers. He also testified that there were numerous other sources from which funded companies could obtain additional revenues, including CLASS/central office services and vertical services. Carriers with modern switches could also introduce new services, including services such as privacy manager.

In response to Staff's concern that subscribers to secondary lines might experience rate shock if high cost funding is not granted for the support of secondary lines, Ameritech responds that this misses the point that USF support is not used as a subsidy to individual customers but is a subsidy to the funded companies themselves. The way to make up any shortfall is not necessarily through only the second lines. Rather, it may be through raising the rates on all lines or through other services as discussed above. In fact, according to the witness, the funded companies are seeking the best of both worlds. They are proposing that the affordable rate be lowered to $20.39 and that all lines be funded. This would mean that the funded companies would charge the lower affordable rate for all lines, including second and additional lines, and receive a higher funding amount because of having lower rates for all of these lines. Ameritech Illinois is not opposed to the companies receiving the revenues they deserve, however, as much as possible should come from their own subscribers, not the customers of other companies. Therefore, even if the Commission were to decide to fund all lines, that action would support an even greater need to have an affordable rate of at least $22.23 so that funding from other companies for additional lines be kept to a minimum.

Ameritech also addresses the argument that supporting only primary lines would be inconsistent with either TA 96 and the FCC's decision to support all access lines and/or the Illinois statutory requirement to support at a minimum the services supported by the FCC. Ameritech first notes that Section 254 (f) of TA 96 provides that "[a] state may adopt regulations not inconsistent with the Commission's rules to preserve and

advance universal service." Ameritech then asserts that Intervenors would pick and choose what is inconsistent. They complain that the Commission has ordered support for primary lines only and not all access lines, as the FCC did, but they ignore the fact that the FCC provides funding to all carriers while, under Section 13-301(d), high cost support is limited to those companies who received support under the High Cost and DEM Weighting Funds. According to Ameritech, Intervenors choose to ignore this difference between the interstate universal service fund and the Section 13-301(d) fund being established in this proceeding.

Finally, Ameritech addressed the arguments relating to the administrative burdens associated with funding only primary lines. Ameritech asserts that potential administrative and enforcement issues are not sufficient reasons for the Commission to require the subsidization of discretionary services. Ameritech Illinois' witness explained on cross examination that there is a definition of "primary" line as a service address used by the FCC that could be applied here. Moreover, despite the administrative difficulties alleged by Staff and some of the funded companies, there is precedent for distinguishing primary lines from secondary lines. Under the FCC's guidelines, Ameritech Illinois implemented a higher EUCL for secondary lines than the one assessed on primary lines. Thus, price-cap carriers have gone through a process where primary lines were designated and treated differently. There is also precedent from earlier Commission high cost proceedings. In its Twenty-Seventh Interim Order dated October 16, 1986, issued in Docket No. 83-0142, the Commission set up a high cost fund as some of the small companies' non-traffic sensitive charges were being transitioned from traffic sensitive access charges to end users. In that Order the Commission found that only residence and single line business access lines would be funded.

2. Verizon

Verizon first responded to the positions taken by the parties advocating funding levels based upon all lines by asserting that the record here demonstrates that non-primary residence lines and secondary business lines do not impose costs beyond the affordable rate and as such are not subject to USF support.

In response to Intervenors argument concerning federal pre-emption, Verizon asserts that here is simply no basis for the argument because the Commission is authorized to consider the establishment of an intrastate USF under Section 13-301(d), which is a state statute. Verizon argues that, notwithstanding that point, the fact that the Commission determined that only primary residence and single business lines are to be supported is not in contravention of federal law because the Commission is setting the parameters for an intrastate USF, not challenging the parameters of the federal USF, which would be the only instance in which federal pre-emption would be an issue. Moreover, the Commission has previously rejected similar preemption arguments in the prior Order.

Verizon next responds to the Intervenors claim that the Commission's decision on this point is somehow "discriminatory" by noting that Section 13-301(d) expressly allows the Commission to determine what services are eligible for intrastate USF support. Accordingly, the Commission has the authority to determine which service will not be supported. As such, the Intervenors "discrimination" claim entirely lacks merit because the Commission has the express authority to make such a designation.

3. Staff

Staff first responds to Verizon's argument relating to second lines being provisioned at little or no cost. Staff asserts that this argument essentially rebuts itself. If, as Verizon argues, second lines are provisioned at little or no cost, and current rates cover these "zero" or, at most, modest costs, it follows that any revenue shortfall that USF eligible companies currently face comes almost exclusively from primary lines. It further follows that, if all or virtually all of the revenue shortfall USF eligible companies currently experience comes from primary lines, then no reduction in total subsidy amount is warranted, -- regardless of which lines receive support – since the current disparity between the costs of providing service and revenues derived form those services is, by implication, caused by only primary lines to begin with.

In response to Ameritech's contention that second lines are discretionary services, Staff notes that the assertion is highly questionable on a number of fronts. First, businesses subscribe to second and additional lines not because they are convenient to have, but because they are necessary to conduct business. Staff posits that, if the Boeing aircraft company moved its headquarters to Leaf River rather than Chicago, for example, it is preposterous to suggest that only one line would be necessary to service the entire headquarters staff of this company. Second, on the residential side, it is difficult to argue that, for example, a household with three teenage children really has a great deal of discretion in getting a second line. Second lines are also used extensively to access the internet, and an increase in second line rates would likely harm internet penetration rates in rural areas, further exacerbating the digital divide, an outcome directly contrary to the General Assembly's expressed policies in this area. *See, e.g.*, 30 ILCS 780/5-3 (state policy should foster "a society in which all individuals can benefit from the opportunities created by the new [digital] technologies.")

Staff notes that, ultimately, the Commission must decide whether the modest cost savings achieved from removing subsidies from second and additional lines outweigh the administrative, financial and social problems that this would cause rural telephone companies and their subscribers. In Staff's view, the Commission should resolve this by ordering that all lines be supported.

4. IITA

The IITA first notes that neither Verizon nor Ameritech addressed the IITA's assertion that the mathematical certainty of any reduction in the fund size resulting from

a decision to support only a subset of lines would, in light of the Commission imposed rate of return limitation, deny the companies the opportunity to earn the rate of return that the Commission has already determined to be reasonable.

The IITA also addressed the arguments of Verizon and Ameritech relating to assertions concerning the cost differences attributable to primary and secondary lines. The IITA asserts that the economic cost studies, which addressed all lines in the composite and which were accepted by the Commission and used to determine that all companies were eligible for support demonstrate that, at a minimum, the economic costs of providing the supported services for all lines exceeds the revenue received, including federal universal service support, by approximately $30 million dollars. As such, the IITA finds Verizon's claim inconsistent with the determination already made by the Commission.

In addition, the IITA notes that the FCC has, on several occasions, considered the types of arguments offered by Ameritech and Verizon to limit federal universal service funding to some subset of access lines. Having considered these arguments, the FCC continues to provide federal support to all access lines. The IITA urges the Commission to follow the FCC's lead and reach the same conclusion.

Finally, the IITA notes that the fund established by the Commission's Second Interim Order is pursuant to the provisions of Section 13-301(d) of the Act. Section 13-301(d) incorporates by reference and requires the Commission to make findings in accordance with Section 13-301(e)(1). Section 13-301(e)(1) provides as follows:

> (1) Define the group of services to be declared "supported telecommunications services" that constitute "universal service". This group of services shall, at a minimum, include those services as defined by the Federal Communications Commission and as from time to time amended. In addition, the Commission shall consider the range of services currently offered by telecommunications carriers offering local exchange telecommunications service, the existing rate structures for the supported telecommunications services, and the telecommunications needs of Illinois consumers in determining the supported telecommunications services. The Commission shall, from time to time or upon request, review and, if appropriate, revise the group of Illinois supported telecommunications services and the terms of the fund to reflect changes or enhancements in telecommunications needs, technologies, and available services. (Emphasis added)

The FCC's funding of services for all lines establishes the minimum for a Section 13-301(d) fund. According the IITA, the arguments of Ameritech and Verizon ignore and are contrary to this requirement.

5. Intervenors

In response to the argument of Ameritech and Verizon relating to the costs of primary and secondary lines, the Intervenors indicate that the argument has 2 inherent defects. First, it understates the cost of the primary line because the costs of the primary and secondary lines are averaged together to arrive at a dollar per line amount of support. Then, after having artificially reduced the cost of the primary line and the dollar amount of support per line, the Ameritech and Verizon argument proposes to provide funding based on the artificially reduced dollar per line level for primary lines only. Stated another way, Ameritech and Verizon propose to reduce IUSF support based on an overstated dollar per line amount for non-primary lines. The Intervenors point out that on cross examination, Ameritech's witness could not state with certainty that primary lines cost more than seconds because he did not do a study.

In response to assertions made by Ameritech relating to the discretionary nature of second lines, Intervenors point out that, while Ameritech witness O'Brien testified that increased charges due to the lack of universal service support for secondary lines for schools, fire departments, churches and governmental offices are simply costs that those entities will have to bear, he did not make the argument that multi-lines to schools, fire departments, churches or other governmental offices are "discretionary." Intervenors assert that, in fact, the normal operation of the services of those entities, like many businesses, requires more than one line. These public service organizations require more than one line to perform their public duties and so do many other rural businesses and homes. It is absurd to term secondary lines as "discretionary" in the age of the information highway and expanding telecommunication services. From this, the Intervenors conclude that secondary lines are not "discretionary services "to public service agencies.

In terms of businesses, Intervenors posit that it is doubtful that many businesses would view their secondary lines as discretionary because their normal operation requires more than one line on many occasions. Like their urban counterparts, rural businesses use secondary lines to talk to customers when the first line is busy and for e-mail and fax capability.

In terms of residential service, Intervenors responded to Ameritech's contention that all that universal service requires is that households have a phone at an affordable rate to make "necessary" calls like emergency calls. Intervenors assert that this position does not square with reality or common practices. The basic use of telephone service is no longer limited to merely emergency situations but has evolved to a greater communications tool. Universal service should recognize that if a customer is willing to pay the affordable rate for an additional line, that line is "necessary" for that individual customer as a matter of basic economics and should be supported to make it affordable to meet that customer's individual residential or business needs.

Intervenors also respond to Ameritech and Verizon assertions that rural telephone companies could turn to other sources of revenue to make up for the

inevitable funding deficiency caused by removing secondary line support by noting that neither Ameritech nor Verizon could give a clear answer on what "other services" could raise revenue. The evidence shows that today Leaf River has 608 access lines and in 1990 it had 642 access lines. The population of Leaf River has increased by 9 people in the last 10 years from 546 in 1990 to 555 in 2000. The school district has had a decrease of 2 children in the last 10 years. At the present time Viola has 854 access lines and in 1990 it had 699 access lines for 155 line increase. The village population, however, has decreased over the last 10 years from 964 in 1990 to 956 in 2000. New Windsor presently has 642 access lines and in 1990 it had 560 access lines, an increase of 82 lines. The population of New Windsor decreased from 774 in 1990 to 720 in 2000. Montrose Mutual presently has 1,695 access lines. Five years ago it had 1,475 access lines. The population of its four exchanges has decreased or at best remained flat for the last 10 years. Dieterich, the largest city in the service area had a population in 1990 of 650 people and today has a population of 590. Oneida has 613 access lines today and in 1995 had 502 access lines, for a 111 line increase. The population of Oneida has remained the same, at 752 between 1990 and 2000. Woodhull has 776 access lines today and in 1994 had 660 access lines. The population of Woodhull has increased by one from 808 in 1990 to 809 in 2000. Intervenors conclude that independent telephone companies have no untapped growth capacity and cannot go out and just "hunt up" new business. The population in rural communities is declining or stagnant at best, but the access line count is increasing due to the greater need for secondary lines for reasonable telecommunications use. The internet, fax lines and e-mail has spawned a greater need for secondary lines and established a new norm.

Intervenors responded to Verizon's suggestion that the rural companies raise their charges for vertical services to offset the revenue requirement deficiency that would occur if the USF fund were limited to primary lines. Intervenors note that Leaf River, Montrose, New Windsor, Oneida, Viola and Woodhull presented evidence that their charges for vertical services were nearly identical to Verizon's charges for vertical services while the revenues generated from vertical services is *de minimus*. According to Intervenors, the fact is that there are no other alternative sources of revenue for rural carriers. Because they derive their revenue from local service, access charges, and universal service support with little or no other source of funds, a substantial funding deficiency will undoubtedly occur without support for all lines.

In response to the assertions of Verizon and Ameritech relating to the administrative difficulties attendant upon single line funding, Intervenors note that Verizon witness Mr. Trimble addressed this issue on cross examination. They point out that he first testified that it was possible to have two or more primary lines to a business or to a multi-apartment premise, but it was impossible to have more than one primary line to a single-family residence. When asked how he would determine a primary line if more than one family member established an account in his or her individual name, one with two competing carriers, he suggested that the phone company look at "its records" to award the first in the field the supported line. According to Intervenors this would result in the anomalous situation of one family member having a line that is supported

(and thus priced lower) and another member of the household having a substantially higher line in his or her own individual name. Mr. Trimble finally admitted that the issue of funding only primary lines was a "slippery slope" to administer and that the Commission would be forced to draw the line somewhere.

Mr. Trimble was then asked how he would treat two lines to the same home, one a single-family residential line and the second a single business line for a home office. At first he responded by stating that he would not support the business line, but then shifted and stated that if the business and residence could be partitioned, then the lines should both be supported, then he ultimately stated if the business line was truly a business, both lines should be supported. For example, a line to a beauty shop in a home with a line to the residence should both be supported. Finally, Mr. Trimble indicated that a lot of different definitions could be used, and he again admitted that it is a slippery slope. He looked to the Commission to invent a definition to solve his problem but he couldn't come up with a suggestion on how to do so.

G. Commission Analysis and Conclusion on Eligible Lines

The Commission has reviewed the evidence and arguments of the parties and concludes that it should not depart from the decision reached previously, which would base the USF calculation on support for a primary line, whether that line be business or residential. The Commission notes that while the parties have presented a great deal of evidence and argument relating to this issue, no party has presented any matter that was not previously before the Commission at the time of the entry of the Second Interim Order. At the time we reached the single line determination there, we were cognizant of the fact that basing the size of the USF fund on support for a single line would reduce the fund size. We were also cognizant of the fact that the qualifying companies would, in all likelihood, seek to recoup the reduction in the fund size from their customers. Rate increases are particularly likely in light of the fact that we have little or no control over the rates charged by the qualifying companies under Section 13-504 of the PUA, which largely exempts carriers with less than 35,000 access lines from the rate making provisions of Article IX of the PUA.

Despite the fact that our decision here may bring rate increases to the customers of the qualifying companies, the policy issue is more far reaching. The policy issue facing the Commission is whether the families and agencies, and, in the case of public agencies, the taxing agencies that support them, should bear the brunt of increased rates relating to second lines, or whether the burden should be shifted to all citizens of the state, including low income citizens in inner cities that cannot afford a single line. On balance, reasoned public policy supports imposing the burden on the parties who use the services and the localities where they are used rather than allowing parties to purchase second lines on the backs of the poor.

In addition to offering no compelling factual or policy reason to depart from our prior decision, no party has presented any compelling legal authority either. Intervenors' pre-emption arguments were dealt with in the Second Interim Order and

will not be addressed again. Our review of section 13-301(d) provides us with no indication that the legislature intended that we walk in lock step with the FCC in determining whether or not to support all access lines in the USF. Rather, the statute simply instructs us to establish a list of supported services no less expansive than the FCC's. That we have done. Our list of supported services includes:

1. Voice grade access to the public switched network
2. Local usage
3. Dual tone multi-frequency signaling or its equivalent
4. Single-party service or its functional equivalent
5. Access to emergency services
6. Access to operator services
7. Access to interexchange service
8. Access to directory assistance
9. Toll control services for qualifying low-income consumers

These are the services supported by the FCC. The fact that the FCC computes the level of support based upon support for all access lines does not change the fact that our order supports the same services. There is no indication anywhere in section 13-301 that the number of lines entitled to support may not be limited, as long as individuals and businesses are guaranteed access to the network and that the fund recognize that that access is at an affordable rate. Our decision assures that this is the case.

In the same vein, Intervenor arguments that the size of the fund must be recalculated (and increased) because our determination will somehow affect the amount of Federal USF support the companies will receive are not well taken. Section 13-301 specifically requires us to compute the size of any USF with the level of Federal funding in mind. The calculation that resulted in the original fund size appearing on Intervenor's Schedule B recognized the entirety of Federal support under then current FCC policy. The fact that the actions taken here reduce the level of state support originally requested will in no way effect the level of Federal support and, accordingly, no modification of the calculation is warranted.

III. PHASE IN ISSUES

A. IITA position

The IITA first notes that all parties submitting testimony, including Staff, Ameritech and Verizon, recommended a transition plan or phase-in to the affordable rate level. While the IITA supported the five year transition plan proposed by Staff in Phase 2 of these dockets, the IITA presented a modified shorter phase-in during the rehearing. The IITA's shorter phase-in is premised on and conditioned on all lines being funded and an affordable rate level of no higher than $20.39. The IITA's plan would involve a transition of the revenue differential between each company's existing rates and the $20.39 affordable rate level in six equal increments with interim steps occurring each six months starting October 1, 2001 and ending April 1, 2004. The IITA's proposed phase-in or transition plan is grounded in experience gained in the 1980's when, pursuant to Commission Orders in Docket No. 83-0142, the intrastate Carrier Common Line charges were eliminated and transitioned to end user customers. In that case, increases of up to a maximum of $12.35 were phased in over a five year period with end user increases occurring every six months.

The IITA asserts that its transition plan is reasonable, patterned after prior Commission's transition plans, and is intended to prevent undue rate shock on customers while phasing in rate increases to a $20.39 affordable rate.

B. Staff

Staff recommends that the phase-in occur over a number of years to prevent rate shock and reduce economic hardship for subscribers of rural telephone companies. Staff recommends that the number of years selected correspond to the final affordable rate. For example, if Verizon's proposed rate of $22.23 is adopted, the phase-in period should be four years. Each year, rates would rise by one-fourth of the difference between the subscriber's current rate and Verizon's proposed rate of $22.23, or $2, whichever is greater. If IITA's proposed rate of $20.39 is adopted, then the phase-in period should be 3 years. Each year rates would rise by one-third of the difference between the subscriber's current rate and the IITA's proposed rate of $20.39 or $2 whichever is greater. The phase-in would occur once a year starting on October 1, 2001. Staff recommends a shorter phase-in period for the lower affordable rate because there is less hardship to which subscribers must adjust.

C. Intervenors

Intervenors first note that all parties except Ameritech agreed on a five-year phase-in plan, before the Second Interim Order was entered. Intervenors go on to note that, at this time, several companies are less than $3.00 from the $20.39 affordable rate and that a shorter phase-in period is appropriate for those companies, assuming that the affordable rate is set at $20.39. Intervenors propose that any carrier that has a current rate of $17.39 or more should be phased in to the affordable rate by increases

of $1.00 per year over the next three years, with increases to occur every six months beginning on July 1, 2002. Any small company whose current rates are less than $17.39 should phase in their rate increases by 20% of the difference between their current rate and $20.39 over a five-year period beginning July 1, 2001. Intervenors recommend that the phase in begin at a time after the Commission has entered an order establishing the affordable rate and phase-in period but with sufficient time for the companies to prepare and file tariffs to meet the 30-day notice requirement of section 13-504 of the PUA. In support of their position, Intervenors attached to their Brief on Exceptions three revised schedules addressing their phase in proposals.

D. Ameritech

Ameritech begins by noting that, in the prior phase of this proceeding, it recommended an affordable rate level higher than that adopted by the Commission in its September 18, 2001 Order and proposed a phase-in to avoid potential rate shock to end users. On rehearing, Ameritech Illinois' proposed that each company would phase in one-sixth of the difference between current rates and the affordable rates each six months, as under the IITA's proposal, with two modifications. Ameritech noted that the rates for many companies are already relatively close to the affordable rate, resulting in the amount of total increase being so small for many of the funded companies that it is not necessary to implement the increase in six steps to avoid rate shock. Based upon this observation, Ameritech suggests that there should be a minimum increase of $1.00 each six months for all companies until such time as an individual company reaches the affordable rate level. For companies needing more than $6.00 in total increases to reach the affordable rate, they would follow the IITA's proposal of an increase of one-sixth of the total difference between existing rates and the affordable rate each sixth months.

The second modification Ameritech Illinois proposed to the IITA phase-in is that if the Commission were to lower the affordable rate level to $20.39, then the phase-in should be reduced to two years, with increases each six months of one-fourth of the difference between existing rates and the affordable rate. The minimum increase each six months would again be $1.00. A shorter time would clearly be appropriate, because the affordable rate would be at a much lower level and companies could phase-in over a shorter period without rate shock.

E. Verizon

Verizon proposes that a transition period of no more than three years is appropriate in order to implement the affordable rate determined by the Commission. It is also Verizon's position that such transitions should be tailored to each member of the IITA. In particular, there may be many instances where the affordable rate can be increased at one time. Such a proposal ensures that as many IITA member customers are paying an affordable rate similar to that paid by Verizon customers—thereby reducing the surcharge imposed upon Verizon customers.

Verizon proposes that the transition plan utilize a semi-annual increase in the affordable rate. The amount of the increase, however, would be fixed at a particular dollar amount for all companies, with the semi-annual increase amount set at the maximum amount any company would be required to increase semi-annually over a three year period. Under this proposal then, some companies would attain the affordable rate plateau more quickly then other companies, whose current rates are exceptionally lower than the Commission-determined affordable rate.

Verizon asserts that its proposal balances the interests of all parties in this proceeding. First, it allows the IITA members the opportunity to phase-in the Commission's affordable rate decision. Second, it implements the Commission's decision in a timely manner. In doing so, Verizon's transition plan serves to ensure that Verizon's customers are not paying more in surcharges than necessary to support similarly situated customers.

F. Replies

1. IITA

The IITA did not specifically address the various plans put forth by the remaining parties.

2. Staff

Staff opposes the semi-annual affordable rate phase-in proposals based upon its view that such an approach would likely be administratively burdensome, would introduce needless complications to the USF fund size calculations without much, if any, consumer benefits. Staff notes that if the affordable rate is phased in semi-annually rather than annually, it will effectively double the tasks associated with rate changes, such as rate re-programming, bill notifications, and explanations to subscribers phoning in about the bill, that companies will have to undertake. It also complicates the calculations involved in determining the fund size since half the year is funded to support one affordable rate while the other half of the year is funded to support a higher affordable rate, not to mention other issues associated with fund administration. In addition, if the affordable rate is adjusted semi-annually, the surcharge used to support USF should be adjusted semi-annually as well, which introduces further complications. Finally, it appears self-evident that semi-annual increases are less palatable to consumers than annual increases. Consumers will have to adjust to two increases a year rather than one, although Staff acknowledges that the one annual increase will be double the magnitude of the two semi-annual increases.

3. Intervenors

Intervenors first address Staff's 3-year phase-in proposal of an affordable rate of $20.39. Intervenors find the 3-year phase-in appropriate for those companies that are

near the affordable rate, but insufficient for companies that are more than $3.00 away from the affordable rate. Intervenors suggest July 1, 2002 as an appropriate starting time.

Intervenors find Ameritech's proposed phase in too harsh and too severe. At an affordable rate of $20.39, Ameritech proposes that all companies phase in their rates within 2 years by one-fourth the difference, with a minimum of $1.00 increase each six months. Several small companies such as Viola are approximately $8.00 away from an affordable rate of $20.39. Intervenors argue that a 5-year phase-in as agreed to in the original proceeding will work towards avoiding rate shock and more reasonably allow for price increases. The Intervenors' proposal of a 3-year/5-year phase-in should be adopted.

4. Ameritech

Ameritech did not specifically address the proposals of the other parties.

5. Verizon

Verizon opposes the longer phase in periods proposed by the IITA and Intervenors. Verizon notes that, during the Phase II proceedings, Verizon presented evidence and argument that the IITA member companies knew that certain subsidies would be eliminated over time, and that they had the opportunity to phase-in rate adjustments. Instead of adjusting rates, the IITA member companies did nothing, which has now, lead some of the companies to claim the need for a five-year transition plan to avoid rate shock to their customers. Verizon urges the Commission to not have Verizon customers subsidize the IITA member companies for any longer than necessary due to the fact that these companies elected to do nothing about their respective rate structures for an extended period of time.

G. Commission Analysis and Conclusion on Phase In

The Commission has reviewed the evidence and arguments and adopts the 3/5 year proposal of Intervenors as shown on their Revised Schedule B, which is attached as an Appendix to this Order. Giving effect to the adjustments adopted herein, the beginning fund size will be $10,535,634 and the final fund size will be $8,695,055, reflecting a total fund reduction of $1,840,579. Utilizing the Intervenors approach, as reflected on the Appendix attached to this Order, all but $317,666 or approximately 17% of the decrease will occur over the first three years. This would seem to satisfy the concerns of Ameritech and Verizon that their subscribers not pay more than necessary for as short a period of time as conscionable, while avoiding rate shock to the customers of the qualifying companies.

IV. FINDINGS AND ORDERING PARAGRAPHS

The Commission, having considered the entire record herein and being fully advised in the premises, is of the opinion and finds that:

(1) Illinois Bell Telephone Company, d/b/a Ameritech Illinois, GTE (now Verizon) North and South, and the companies that comprise the Illinois Independent Telephone Association, or IITA, which consist of small, independent local exchange companies with fewer than 35,000 access lines, and all other interveners in this proceeding are telecommunications carriers as defined by the Illinois Public Utilities Act;

(2) the Commission has jurisdiction over the parties and the subject matter of this proceeding pursuant to the Illinois Public Utilities Act;

(3) on March 16, 2000, the IITA filed, pursuant to Section 13-301(d) of the PUA, a *Petition for initiation of an investigation of the necessity of and the establishment of a Universal Service Support Fund in accordance with Section 13-301(d) of the Public Utilities Act* on March 16, 2000, which Petition was docketed as ICC Docket No. 00-0233;

(4) on May 10, 2000, pursuant to Section 13-301(d) of the PUA and our Order dated March 29, 2000 in Docket Nos. 97-0601/0602, we initiated Docket No. 00-0335, which was consolidated with the IITA Petition in Docket No. 00-0233 on March 10, 2000; and

(5) the recitals of fact and conclusions of law set forth in the prefatory portion of this order and those findings and conclusions in the September 18, 2001 Second Interim Order not specifically set aside by this Order are supported by the record and are hereby adopted as the findings of fact and conclusions of law of the Illinois Commerce Commission.

IT IS THEREFORE ORDERED by the Illinois Commerce Commission that:

A. An initial Universal Service Fund in the amount of $10,535,634, plus administrative expenses, is hereby established pursuant to Section 13-301(d) of the Illinois Public Utilities Act;

B. The Fund shall become effective thirty days from the entry of this order and shall remain in effect until dissolved by order of the Commission and shall be reduced in accordance with the proposals of Intervenors as indicated on Revised Schedule B attached to their initial brief on rehearing with a final fund size of $8,695,055; Revised Schedule B is attached to this Order as an Appendix;

C. The services defined by the FCC as supported services shall be the state supported universal services for purposes of the Fund, with the exception that the fund shall be based upon support for a single residential or business line;

D. The Verizon adjusted rate of $20.39 is adopted as the "affordable rate" for purposes of the Fund;

E. All local exchange carriers and interexchange carriers certificated in Illinois shall contribute to the Fund on the basis of their intrastate retail revenues, consistent with Section 13-301(d) of the PUA and the Agreement submitted by the parties to this case, which is hereby approved and incorporated into this Order;

F. All carriers contributing to the Fund shall timely provide to the Fund Administrator and Staff, in the first instance, all information necessary to determine each carrier's intrastate net retail revenues;

G. All carriers contributing to the Fund shall recover their fund contributions from their end user customers via an explicit end user surcharge on the customer's bill. The surcharge shall be assessed in a competitively neutral manner consistent with existing Illinois rules and statutes;

H. All carriers contributing to the Fund shall be prohibited from recovering their funding commitments from another certificated carrier for any service purchased and used solely as an input to a service provided to such certificated carrier's retail customers;

I. The ISCECA is appointed as the Fund Administrator of the Fund.

IT IS FURTHER ORDERED that all findings, conclusions and ordering paragraphs contained in the Second Interim Order (Order entered September 18, 2001) in this docket that are not specifically set aside or modified herein, shall remain in full force and effect.

IT IS FURTHER ORDERED that any materials submitted in this proceeding for which proprietary treatment was requested shall be accorded proprietary treatment.

IT IS FURTHER ORDERED that any petitions, objections or motions made in this proceeding and not otherwise specifically disposed of herein are hereby disposed of in a manner consistent with the conclusions contained herein.

IT IS FURTHER ORDERED that subject to the provisions of Section 10-113 of the Public Utilities Act and 83 Ill. Adm. Code 200.880, this Order is final as to all matters determined herein; it is not subject to the Administrative Review Law.

By order of the Commission this 13th day of March, 2002.

Chairman

Chairman Mathias dissented.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-31)
Wyoming 2000 Telecom Report

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-31

Wyoming Public Service Commission "2000 ANNUAL TELECOMMUNICATIONS REPORT" prepared by the Commissioners and Staff of the Wyoming Public Service Commission; January 10, 2000.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 39
Company/ Alltel
Witness: David C. Blessing (DCB-31)
Date: 12/01/05

2000 Telecom Report
2000 ANNUAL TELECOMMUNICATIONS REPORT

prepared by the Commissioners and Staff of the
Wyoming Public Service Commission
pursuant to W. S. § 37-15-407 of the
Wyoming Telecommunications Act of 1995
January 10, 2000
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Introduction by the Commissioners
Dear Reader:
This is our Report to you about some of the most important regulatory and other issues of 1999 in the Wyoming telecommunications industry. Many have developed from our implementation of the Wyoming Telecommunications Act of 1995. It continues to drive important and fundamental changes in the industry as Wyoming's competitive markets grow and develop. In the process, the Wyoming Act

requires us to consider competitive markets and affordable, universal service - two goals which are not always compatible. In working to implement the Act, we examine the various interests and work to strike the best balance we can for the people of Wyoming. We hope that this Report helps provide you with useful information about the telecommunications industry in Wyoming and an understanding of some of the challenges we have faced in 1999.

New services and new infrastructure are being deployed in Wyoming, although not as fast as some would like. Competition has increased, and some larger - and even smaller -- markets now have choices of local service providers. Even if competition is not universal yet and if not all of the people have local service choices, Wyoming's long distance markets show the price and service benefits which come from competition when it does develop.

The Act requires services to be priced to cover their own costs (measured by the total service long run incremental cost - TSLRIC -- of the service) and requires that long standing implicit subsidies be removed from service prices. As the Act thereby identifies more clearly the true costs of providing service in Wyoming, we have seen such good news as the decreases in U S WEST's business service, in-state long distance and access service prices which went into effect on October 1, 1999, as well as decreases for other services such as Extended Area Service charges. On the other hand, U S WEST's new prices also included increases in residential local service prices. These prices have been the result of a long series of cases beginning in 1995 through which U S WEST has come into compliance with the Act. Other local exchange companies have either complied with these pricing requirements; or, if not, several of the mostly smaller independent companies have sought TSLRIC compliance waivers from the Commission as provided for in the Act.

Because of its status as the largest local service provider in Wyoming, U S WEST's price changes have affected the great majority of telecommunications customers in the state, either directly or through the Wyoming Universal Service Fund. The inescapable conclusion is that Wyoming remains a state in which the cost of providing service is among the highest in the nation. The high costs are driven by a small population widely dispersed throughout a large geographical area.

These price developments make it more important that the Wyoming and federal universal service funds operate smoothly and fairly to maintain the affordability and availability of service throughout the state. Some of the Wyoming story is told in the Report and in our December 30, 1999, Petition to the FCC for reconsideration of its recent decision which would unfairly and substantially lower the amount of federal universal service support going to U S WEST - Wyoming's only "non-rural" carrier in FCC parlance.

The fate of federal universal service support for Wyoming's smaller independent ("rural") local exchange companies is yet to be decided by the FCC, but the current result shows us that there is much work left to do if the mandate of the federal Act - that urban and rural services must be comparably available and comparably priced - is to be fairly implemented. The Petition, which is an appendix to this Report, also describes the opening of Wyoming markets to competition and provides additional detail on the obligations of the FCC and some important facts about U S WEST's service in Wyoming.

The amount of support which the Wyoming Universal Service Fund is allowed to provide to customers in high-cost areas was affected by changes in the statewide weighted average basic business and residential prices. Because support is, by statute, based on thresholds of 130% of the respective averages, changes in U S WEST prices have raised the support threshold by over $9 to $34.81 per month for all basic service subscribers in the state. This has generated much consumer discontent and has sharpened the debate about changing the Wyoming Universal Service Fund to provide more predictable support.

Both the Wyoming telecommunications industry and the Wyoming Telecommunications

Act of 1995 remain works in progress because of the dynamic nature of the technology and the communications entities seeking to serve in the state. The Act is the State's policy statement on telecommunications, and we have worked to apply it conscientiously. If time and experience lead to a recognition that changes should be made and new policy directions taken, we are ready to work together with you to produce the best outcome for the people and economy of Wyoming.
Thank you for your interest in telecommunications and in the work of the Commission.
Sincerely,

STEVE ELLENBECKER
ChairmanSTEVE FURTNEY
Deputy ChairKRISTIN H. LEE
Commissioner

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Foreword
This report is prepared annually by the Wyoming Public Service Commission in response to the mandate of W.S. § 37-15-407 in the Wyoming Telecommunications Act of 1995, which states:
"(a) The commission shall with the input and participation of the telecommunications industry and other relevant state departments, boards and agencies prepare and issue an annual report on the status of the telecommunications industry and Wyoming regulation thereof on January 10 of each year beginning in 1996. Such report shall include:
"(i) A review of regulatory decisions and actions from the preceding year and a description of pending cases involving significant telecommunications companies or issues;
"(ii) A description of the telecommunications industry or trends therein, including the number, type and size of companies offering telecommunications services, telecommunications technologies in place and under development, variations in the geographic availability of services and in process for services, and penetration levels of subscriber access to local exchange service in each exchange and trends related thereto;
"(iii) The status of compliance by carriers and the commission with the requirements of this chapter;
"(iv) The effects, and likely effects of Wyoming regulatory policies and practices, including those described in this title, on telecommunications companies, services and customers;
"(v) Any recommendations for legislative change which are adopted by the commission and which the commission believes are in the interest of Wyoming telecommunications customers; and
"(vi) Any other information or analysis which the commission is required to provide by this title or deems necessary to provide.
"(b) The commission's report shall be filed with the legislature, the governor and the state telecommunications council."
Substantial amounts of up-to-date information about telecommunications regulation in Wyoming are available at the Public Service Commission's web site; and this has allowed the Report to be simplified and streamlined. Please visit our web site at:
http://psc.state.wy.us/
Our web site provides you with the complete texts of orders, notices and other papers and documents prepared by the Commission as well as copies of the

official minutes of the Commission's public actions, information about our Commission and staff and other matters. It is a searchable and up-to-date resource; and we invite you to use it. We also invite your suggestions for its improvement. Please contact our webmaster at dcrock@state.wy.us with your ideas.
SECTION 1:
REGULATORY MATTERS

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a. Chronology of Telecommunications Issues and Events: 1999
January 11 and 12, 1999 Chairman Ellenbecker participated in a State Telecommunications Policy Symposium at San Diego, California, sponsored by the Competition Policy Institute (CPI). CPI is a nonprofit organization established to develop and advocate policies designed to bring the benefits of competition to telecommunications consumers. Participants at the meeting included state commissioners, incumbent local exchange companies, and new competitive market entrants from across the nation.
January 14, 1999 The Commission held a hearing on U S WEST's application to have its intraLATA toll (in-state long distance) service declared to be subject to effective competition under the provisions of the Wyoming Telecommunications Act of 1995. Granting this application would remove this service from price regulation by the Commission. AT&T, McLeodUSA and MCI/WorldCom argued against this request, stating that a fair and competitive market could develop better if many continuing safeguards provided by the Commission were to be retained. The Commission later granted this application.
January 19, 1999 U S WEST and the Commission's Consumer Advocate Staff filed with the Commission a petition for reconsideration, the granting of which would re-open the U S WEST Phase III price plan case. The Commission rejected the Phase III price plan proposal in 1998 citing a number of deficiencies and insufficient attention to public interest concerns. The petitioners argued that it would be more efficient to salvage the record in the Phase III case rather than begin with a new proposal.
January 26, 1999. The Commission granted Tri-Tel, a subsidiary of TCT WEST, a concurrent certificate of public convenience and necessity to provide local exchange service as a facilities-based carrier competitively in the areas of the state served by U S WEST.
January 1999 Throughout the month of January, the Commission provided input and testified before legislative committees on House Bill 30, concerning Commission pricing authority and competition, House Bill 66, regarding changes to the Wyoming Universal Service Fund, and other bills not connected to the telecommunications industry. By the end of the 1999 Legislature in March, all telecommunications bills had died at some point in the legislative process.
February 4, 1999 The Consumer Advocate Staff discussed with representatives from Tri-County Telephone and TCT WEST possible solutions to the problems related to the unilateral price filing and the implementation of those prices by these companies for noncompetitive business and residential local exchange service, without Commission approval under the Wyoming Telecommunications Act of 1995. The issues include the interpretation of the interrelationships between a number of provisions of the Wyoming Telecommunications Act of 1995 and associated universal service fund impacts.
February 9, 1999 A Notice of Application was issued regarding the approval of a resale agreement between U S WEST and Topp Comm, Inc. No public statements or objections were filed, and the Commission approved the agreement after the notice period.
February 10, 1999 The Commission issued its Order Approving Partial Interconnection Agreement Between AT&T Communications of the Mountain States,

Inc., and U S WEST Communications, Inc., under which U S WEST would provide to AT&T certain local trunking facilities to allow AT&T to provide Outbound ADL, which is a new competitive local business service in Wyoming.
February 17, 1999 Governor Geringer, Chairman Ellenbecker and industry representatives made presentations at the annual meeting of the Wyoming Telecommunications Association. Much of the discussion centered around the concepts of price rebalancing, competitive services, the high cost of providing service in rural areas of the state and the course of further deregulation.
February 26, 1999 The Federal Communications Commission released a Declaratory Ruling in Common Carrier (CC) Docket No. 96-98 and Notice of Proposed Rulemaking (NPRM) in CC Docket No. 99-68, in which it sought comment on the proper treatment of inter-carrier compensation for ISP (Internet Service Provider)-bound traffic. The Commission filed the Reply Comments of the Wyoming Public Service Commission in CC Docket No. 99-68 stressing that [i] compensation for ISP-bound traffic addresses a local function and therefore is appropriately treated as a state level issue; and [ii] that state-level negotiations should govern the determination of reciprocal compensation among concerned carriers.
March 9, 1999 The Commission issued its Order Removing Unlawful Price Sheets From Commission Records and Dismissing Associated Cases in the matter of the unilateral filing by TCT West and Tri County Telephone Association of rates for noncompetitive local exchange prices not supported by a price plan as required by the Wyoming Telecommunications Act of 1995. Some of the prices in the joint filing would have resulted in some individual residential monthly local basic exchange rates in the $200 to $500 range.
March 11, 1999 The Commission deliberated the U S WEST case wherein the company had applied to have its in-state long distance service declared competitive (and hence price deregulated) pursuant to W.S. § 37-15-202. AT&T, MCI, and McLeod continued to express their concerns about the level of U S WEST's access charges and their impact on toll competition. The Commission found by a 2-1 vote that the statutory test for effectively competitive service had been met.
March 12, 1999 In the "Phase III" stage of U S WEST's price plan applications, the Commission issued its Order Denying Joint Petition for Rehearing. U S WEST and the Consumer Advocate Staff filed the petition, and McLeodUSA and AT&T opposed it. Petitioners sought to keep the case open to remedy the deficiencies found by the Commission, but the Commission concluded that the most efficient way to proceed would be to begin anew, finding insufficient reason to grant the Joint Petition.
March 19, 1999 Chairman Ellenbecker met at Torrington with Goshen County Commissioners and legislators and mayors from the region to discuss their concerns about the Sprint/United Telephone local service price increases. Chairman Ellenbecker took the opportunity at the meeting to explain the Wyoming Telecommunications Act of 1995 and its impact on Sprint/United Telephone rates.
March 22, 1999 The Commission issued its final order on rehearing in the matter of its arbitration of the interconnection contract negotiations of U S WEST and AT&T under the federal Telecommunications Act of 1996. The Commission directed that a contract be prepared in accordance with the Order and furnished to the Commission for final review by a date certain.
March 23, 1999 The Commission issued an Order Denying Rehearing in the complaint of wyoming.com, LLC, against U S WEST relating generally to slow service provisioning, system instability and down time for Frame Relay Service and associated lines. U S WEST sought a rehearing regarding the interpretation of its tariffs and the charges which should (and should not) flow therefrom.
March 25, 1999 The Commission issued a remedial order to Luxor Communications, the provider of local exchange telecommunications services to the Mountainside Apartment complex at Cheyenne, finding it to be a local and interexchange telecommunications company, ordering it to become certificated and registered, respectively, as such, under the Wyoming Telecommunications Act of 1995, to

interconnect with U S WEST, and, among other things, to remedy a number of service and life safety problems posed by its less than adequate telecommunications service.

April 5, 1999 The Commission issued an order clarifying, revising and allowing the exchange of small portions of their certificated territories among U S WEST, Tri County Telephone Association, TCT West and RT Communications in Wyoming's Big Horn Basin. This order resolved a number of unrelated territorial matters and resulted in more efficient service for the affected rural customers.

April 5, 1999 The Commission hosted a visit by Japanese national telecommunications law and pricing policy makers, Professor Tsuruhiko Nambu, Professor of Economics, Gakushuin University, Tokyo; and Professor Makoto Kojo, Professor of Law, Sophia University, Tokyo. The participants exchanged views on Japanese and United States telecommunications pricing and regulation, with an emphasis on the shared experiences and similar challenges of bringing pricing and legal mechanisms into harmony with an emerging competitive telecommunications market.

April 7, 1999 The Commission deliberated proposed switched access rules in its General Order No. 74 proceeding. The proposed rules would have established a specific access pricing methodology and transition time frames for the use of that pricing. By a 2-1 vote, the Commission determined that it did not have the statutory authority to implement such rules. Instead of issuing rules, the Commission laid plans to prepare a report to the Legislature consistent with requirements of W.S. § 37-15-411, which directs the Commission to ". . . commence an investigation into the appropriate methodology for calculation of intrastate switched access charges for all Wyoming telephone utilities and the feasibility of implementing a procedure for phasing out intrastate telecommunication subsidies flowing between telephone companies in Wyoming by January 1, 2002."

April 8, 1999 The Commission held a formal collaborative meeting in its General Order No. 85 proceeding, asking for industry and public input on ways to assure that the Wyoming Universal Service Fund is administered and distributed in a "technologically and competitively neutral" manner. Comments were received from McLeodUSA, Western Wireless, CommNet Cellular, U S WEST, and wyoming.com. Further Commission consideration will follow the receipt of formal comments.

April 11 through 13, 1999 Commissioner Furtney and three staff members attended the semi-annual meeting of the U S WEST Regional Oversight Committee in Scottsdale, Arizona. Commissioner Furtney and State Senator Cale Case participated in discussions on quality of service issues and cost-based pricing with specific reference to Wyoming's progressive implementation of the 1995 Wyoming Telecommunications Act and our unique rural high-cost situation. The Regional Oversight Committee is composed of the regulatory agencies of the fourteen state jurisdictions in which U S WEST operates and is dedicated to the discussion of issues and the sharing of solutions to U S WEST-related regulatory challenges in the telecommunications industry.

April 13, 1999 The Commission issued its General Order No. 76, adopting rules on interconnection, compensation, network unbundling, resale of services and "1+" equal access by telecommunications companies in Wyoming under the Wyoming Telecommunications Act of 1995, with references to actions taken in harmony with the federal Telecommunications Act of 1996. Aspects of imputation, as a tool to ensure fairness in pricing between competitive companies, were contained in the rules.

April 14, 1999 The Commission deliberated proposed quality of service rules in its General Order No. 73 proceeding, for landline telecommunications companies. The Commission finished much of its work during these deliberations, but resolved to conduct separate rule makings on data speed requirements and cellular quality of service.

April 16, 1999 The Commission denied the petitions of Tri County Telephone

Association and TCT West for a rehearing of the Commission's rejection of their unilaterally filed price sheets which the Commission considered illegally filed under the Wyoming Telecommunications Act of 1995. The petition sought reversal of the Commission's March 9, 1999, Order Removing Unlawful Price Sheets From Commission Records and Dismissing Associated Cases.
April 16, 1999 The Commission opened an investigation into reciprocal compensation by local exchange companies with respect to telecommunications traffic bound for Internet Service Providers (ISPs), possibly leading to a rule making under the Wyoming Telecommunications Act of 1995.
April 19, 1999 In the wyoming.com complaint against U S WEST, the Commission issued an Order Granting Motion for Extension of Time, giving U S WEST until April 22, 1999, to carry out the required refunds to wyoming.com in the case (either by actual refunds of amounts paid by wyoming.com or by credits for refundable amounts billed but not paid) for all charges found in this proceeding not to be lawfully collectible by U S WEST.
April 20, 1999 The Commission granted the motion of the Consumer Advocate Staff to withdraw its price complaint against the April 1998 rates of TCT West and Tri County Telephone Association established in accordance with the Telecommunications Act. These rates were then the unchallenged and undisputed legally established rates for the respective companies.
April 20, 1999 The Commission held a hearing in Cheyenne on the application of Silver Star Communications to be designated as an Eligible Telecommunications Carrier status for the Afton, Wyoming, exchange. Such a designation would make Silver Star eligible to apply for federal high cost support for its local exchange service in Afton. The hearing also took up the subject of Silver Star's request for a study area waiver, which would allow it to receive federal high cost support funds as an incumbent provider rather than as a competitive provider (i.e., based on its own cost situation rather than U S WEST's). U S WEST intervened and raised questions regarding potentially anti-competitive results if the entire application were granted. The Commission directed that briefs be filed prior to its deliberation of a decision in the matter.
April 20, 1999 The Commission issued an Order granting, by majority vote, U S WEST's application for a finding that its Wyoming intraLATA interexchange (in-state long distance) telecommunications services are subject to effective competition under the Wyoming Telecommunications Act of 1995. This action removed pricing authority from the Commission and the possibility of price complaints by the general public or the Commission.
April 21, 1999 AT&T and U S WEST filed petitions for rehearing with respect to the March 22, 1999, final order on rehearing in the matter of the interconnection contract negotiations between AT&T and U S WEST under 47 U.S.C. § 252 in the federal Telecommunications Act of 1996. Under its Rules, the Commission must also review any responses to these petitions which would initiate a second round of rehearings in this much contested matter.
April 26, 1999 U S WEST filed its latest (fourth) application for approval of a price plan for intrastate services including some pricing which was quite similar in many ways to the prices proposed in earlier U S WEST price plan applications, but with considerably better supporting evidence and featuring fixed point pricing for basic service rather than open-ended "ceiling" pricing. The Commission set hearings for the week of June 21, 1999.
April 27, 1999 The Commission commented formally to the FCC on reciprocal compensation by local exchange companies for ISP-bound traffic, opposing the FCC's attempt to extend its jurisdiction by turning the subject into an interstate matter.
April 30, 1999 The Commission held a public hearing to determine the scope of the coverage afforded by the Wyoming Universal Service Fund. It inquired into the meaning and interpretation of the statutory language in the Wyoming Telecommunications Act of 1995 which could be interpreted to mean that only

"single line flat-rate or single line measured residence or business service" would qualify to receive support from the Wyoming Universal Service Fund.
May 3, 1999 The Commission deliberated the complaint of Bobby Guinn against U S WEST relating to a proposed $15,000 service connection fee and required U S WEST to provide the necessary facilities and services without the addition of special construction charges as specified in the applicable tariffs, and to do so as soon as possible.
May 6, 1999 Commissioners Furtney and Lee conducted an open meeting in Torrington to answer questions from the public concerning the Sprint/United Telephone rate increase approved by the Commission under the provisions of the Wyoming Telecommunications Act of 1995. There were approximately 250 people at the meeting, and they presented the Commission with a signed resolution from many citizens, including elected state and local officials in eastern Wyoming, asking the Commission to rescind the rate increase. The Commission docketed this as a price complaint under the Act and the matter is now pending further consideration. Sprint/United serves Torrington and several small communities in eastern Wyoming.
May 6 and 7, 1999 At the request of the Governor, the Commission Chairman and the Chief Counsel participated on the Interagency Task Force on Telecommunications to assist the Governor and other members of the State Board of Land Commissioners in their right-of-way discussions with the Williams and Enron companies, two entities seeking to place high speed fiber optic cable facilities through Wyoming. The meetings and negotiations were productive.
May 13, 1999 The Chief Counsel, together with representatives of the Wyoming Business Council, and the Board of Land Commissioners, met and discussed local and state telecommunications issues with the County Commissioners at their Wyoming County Commissioners Association meeting in Laramie. Topics included high speed access, increasing the number of points of presence in Wyoming, the economic development potential of telecommunications and other subjects. On May 14, 1999, WCCA passed resolutions supporting the Governor's Interagency Task Force on Telecommunications, and urging the formation of a public-private consortium to work on telecommunications issues. A resolution on a fully interoperable public safety radio system for the state was also passed.
May 18, 1999 The Commission approved the petition of U S WEST to withdraw its application under Section 271 of the federal Telecommunications Act of 1996 which was then pending before the Commission for more than a year and had become out-dated. According to law, the application would require the approval of the Commission and the FCC; and, if it were granted, it would allow U S WEST to enter and compete in the interLATA (and interstate) long distance market. Section 271 links permission to enter these interstate markets to the further development of competitive local exchange markets or the offering by the local exchange company of a list of pro-competitive options in the absence of competition. U S WEST did not thereby drop its plans but indicated that it would seek to refile an application with new information in the future.
May 26, 1999 The Commission issued its Notice and Order Setting Public Hearing and Procedure, setting a public hearing for September 29, 1999, at the Big Horn County Fairgrounds in Basin, Wyoming, to consider the applications of Tri County Telephone Association, Inc., and TCT West, Inc., to revise their basic local exchange service rates. The companies, in their substantially similar applications, cited the need to prepare for competition, to closely align rates with costs, and to eliminate implicit subsidies from rates as reasons for making the filings.
May 27, 1999 The Commission attended a joint meeting of the Wyoming Telecommunications Council and the Wyoming Business Council. In his remarks, Chairman Ellenbecker urged the two groups to work together closely to formulate telecommunications policies for Wyoming.
June 1, 1999 The Commission issued an Order Denying Petition for Rehearing in

its General Order No. 76 proceeding relating to the promulgation of rules concerning interconnection, compensation, network unbundling, resale of services and "1+" equal access by telecommunications companies serving in Wyoming. The denied Petition for Rehearing was filed by U S WEST which, among other things, challenged the imputation requirements of these rules.

June 3, 1999 The Commission held deliberations in its General Order No. 85 proceeding concerning the administration of the Wyoming Universal Service Fund in a competitively and technologically neutral manner. As a result of its deliberations, the Commission asked industry for additional comments and proposals which might include changing the Commission's rules or Wyoming statutes.

June 10, 1999 The Consumer Advocate Staff met with representatives from Project Telephone, RT Communications, Range Telephone, Dubois Telephone, and Chugwater Telephone to discuss the companies' plans for beginning the elimination of subsidies from local telephone rates under the Wyoming Telecommunications Act of 1995 and to discuss total service long run incremental costs. The companies indicated their general preference to leave rates at current levels for as along as possible and to continue to request waivers of compliance with the Act's TSLRIC requirements as allowed in the Act itself.

June 21 through 23, 1999 The Commission held public hearings on U S WEST's latest ("Phase IV") price plan. Intervenors in the case included AT&T and McLeodUSA (who both ultimately withdrew after reaching settlements with U S WEST) and the Consumer Advocate Staff (which also reached a stipulation with U S WEST). After three days of hearing, the Commission approved the settlement stipulations of all of the parties, and ordered that the prices in the case become effective October 1, 1999. These prices finish the transition of U S WEST to complete compliance with the requirements of the Wyoming Telecommunications Act of 1995 that subsidies be eliminated and that individual service prices of companies providing noncompetitive services each must cover their own total service long run incremental cost. The approved plan thus raises local residential flat rate service prices inside base rate areas from $18.75 to $23.10; reduces local business base rate area service rates from $30.56 to $23.10; reduces toll charges from an average of more than 17¢ per minute to an average of 11¢ per minute; reduces switched access charges from 4.8¢ per minute to 1.5¢ per minute. Customers in the three rural zones outside of the base rate areas also experience additional charges (identical now for residential and business customers) reflecting the additional cost of serving customers farther from the local switch. Because of the relatively large number of customers affected by the increases and reductions (about 80% of Wyoming telephone access lines), the thresholds above which customers receive assistance from the Wyoming Universal Service Fund will, on October 1, 1999, become about $35 and $32 for residential and business services, respectively. For residential customers, this means that the threshold will rise and approximately none dollars per month in universal service fund support would no longer be available.

June 24-25, 1999 A Commission staff representative attended the Rural Task Force meetings in Washington, D. C., to tell the "Wyoming story" and to describe Wyoming's requirements for federal support to keep our local basic telephone rates affordable. The Rural Task Force is a group charged with advising the Federal Communications Commission on issues arising with respect to federal universal service funds for local service providers in rural areas.

June 25, 1999 The Commission issued a Request for Proposals regarding the management of the Wyoming Universal Service Fund. The Commission contracts with the National Exchange Carrier Association for fund management services. Because this contract is scheduled to expire on August 31, 1999, the Commission will review proposals for their cost and efficiency in serving the Fund.

June 30, 1999 The Commission held a hearing in Cheyenne on a specific Wyoming Universal Service Fund question of whether the required assessment which

provides monies for the Wyoming Universal Service Fund should be assessed against the local service rate before or after the support credit is applied to customer bills. Questions addressed included rate comparability, fairness, and company and customer accountability.

June 30, 1999 The Commission issued an order denying the Petitions for Rehearing filed by U S WEST and AT&T concerning issues in the arbitration by the Commission of the companies' disputes concerning an interconnection agreement between them under the federal Telecommunications Act of 1996. The Commission's order clarified points in earlier orders and brought them up-to-date with respect to recent legal developments, including decisions of the United States Supreme Court. In the order, the Commission directed the parties to file an agreement within 90 days of the date of the order.

July 1, 1999 The Commission held a hearing in Cheyenne to consider arguments by Western Wireless to be determined to be an eligible telecommunications carrier for purposes of receiving federal universal service fund support. Based on the evidence at the hearing, the Commission determined that it did not have jurisdiction in the matter and dismissed the application.

July 13, 1999 The Commission deliberated the evidence adduced at its April 30, 1999, public hearing concerning the appropriate number of lines (per customer or per premises) which should be supported by the Wyoming Universal Service Fund. At issue was the statutory language of W.S. § 37-15-103(a)(iv)(B) which describes the essential service eligible for support as ". . . [s]ingle line flat-rate or single line measured residence or business service; . . . ." The Commission concluded that no change to existing rules or practices were required at that time. The current policy is to support all lines, both business and residence.

July 13, 1999 The Commission issued orders dismissing the petitions of AT&T Communications of the Mountain States, Inc., and Sprint Communications Co., L.P., for Commission orders requiring the release of all intraLATA toll carrier "freezes" allegedly instituted without prior customer notice or authorization. The petitioners were concerned that certain unilaterally imposed long distance carrier "freezes" (preventing customers from switching carriers) imposed by U S WEST were anticompetitive and contrary to law. In asking for the dismissal, the petitioners stated that they had been able to resolve their disputes with U S WEST in this case.

July 14, 1999 The Commissioners and staff members met with telecommunications industry representatives to discuss issues related to the Commission's approval of the 1999 U S WEST price plan and, specifically, the impact of the new U S WEST rates on the statewide average price used to calculate disbursements from the Wyoming Universal Service Fund. Preliminary figures available at that time showed that the state-wide average price for residential local exchange service will increase by approximately $10 dollars per month. This will reduce the Wyoming Universal Service Fund support payable to customers of those companies which have already implemented rates which are greater than the support threshold. The focus of this discussion was how to inform and educate the public prior to the scheduled October 1, 1999, implementation of the new U S WEST rates.

July 15, 1999 In open meeting action, the Commission approved the application of Sprint/United Telephone Company of the West to enter into a Master Interconnection and Resale Agreement with Dakota Services, Ltd. No public statements or objections were filed, and the Commission approved the agreement after the notice period had run.

July 19, 1999 Commissioner Lee chaired a public hearing to consider the formal complaint of Charles Hoelzen against U S WEST regarding service quality and billing issues. The final decision awaits receipt of hearing transcripts and their review by the other Commissioners.

August 4, 1999 Commissioners Ellenbecker and Lee and several staff members

attended the Wyoming Telecommunications Council meeting in Cheyenne to discuss proposed Commission quality of service rules, the Wyoming Education Network, law enforcement network needs, Internet services and other telecommunications issues.

August 5, 1999 Commissioners Ellenbecker and Lee and several staff members attended the Wyoming Business Alliance meeting in Casper which focused on telecommunications and competition issues in the state. Chairman Ellenbecker made a presentation on quality of service matters and the implementation of the Wyoming Telecommunications Act of 1995.

August 9, 1999 The Commission issued an Order for Public Notice regarding the request of U S WEST and NOW Communications, Inc., for approval of a Phase Two Resale Agreement between them. No public statements or objections were filed, and the Commission approved the agreement after the notice period had run.

August 9, 1999 The Commission issued its Order Allowing Withdrawal of Price Plan Filings granting the similar motions of Tri County Telephone Association, Inc., and TCT West, Inc., to withdraw their substantially identical applications to revise their basic local exchange service rates which they filed on May 11, 1999.

August 11 and 12, 1999 A representative of the Commission staff attended the Tri-State Telephone Association meeting at Park City, Utah, to discuss issues common to local telecommunications providers in Wyoming, Utah and Idaho. Our staff made a presentation on recent Wyoming activities concerning the repricing of services, state and federal universal service fund issues and the development of competitive markets.

August 13, 1999 The Commission issued an order denying Silver Star Telecommunications' petition for an order nunc pro tunc effectively amending its concurrent certificate of public convenience and necessity to serve the Afton, Wyoming, exchange, which would declare its Afton service subject to effective competition. At the same time, the Commission established a proceeding under W. S. § 37-15-202 to go forward with its determination of the request.

August 17, 1999 The Commission issued a Notice of Application that U S WEST Communications, Inc., and U S WEST Wireless, LLC, have applied for approval of a Type 2 Wireless Interconnection Agreement, set to terminate on October 16, 2001. Finding it to be an extended version of previously approved interconnection agreements, the Commission, in the absence of objection, approved it.

August 17, 1999 United Telephone Company of the West d/b/a Sprint received authority from the Commission to revise its access and local exchange tariffs to limit liability for service failures resulting from year 2000 incompatibility. The Commission acted by Notice and Order.

August 23, 1999 The Commission attended a presentation by McLeod USA to Governor Geringer, the Wyoming Business Council and the Wyoming Telecommunications Council regarding its presence in Wyoming.

August 30, 1999 The Commission shared with Congress certain concerns with a possible federal legislative mandate for the conversion of accounting by telecommunications companies from the FCC-mandated USOA (Uniform System of Accounts) to GAAP (Generally Accepted Accounting Principles). Despite the possibility that it could streamline telecommunications accounting and render it somewhat less costly in a more competitive environment, the Commission was very concerned about the implications that the changeover could have on the Federal Universal Service Fund (FUSF) and the calculation of support thereunder. Wyoming's high cost telecommunications environment makes it particularly vulnerable to changes in federal funding support levels.

August 31, 1999 The National Exchange Carrier Association's primary (NECA) contract for management assistance to the Commission with respect to the Wyoming Universal Service Fund expired on this date. As statutory administrator of the Fund pursuant to the Wyoming Telecommunications Act of 1995, the Commission initiated a competitive bidding process seeking proposals for Fund management

services. The Commission selected James Dinneen, Esq., to become the new Wyoming Universal Service Fund Manager. Mr. Dinneen is an attorney with the Cheyenne law firm Lathrop & Rutledge, P.C.; and he is also a Certified Public Accountant with extensive experience in taxation, bankruptcy trusteeship, trusts and estate administration. NECA will continue to provide transitional Fund management services for a period of two months to allow the orderly transfer of records to Mr. Dinneen and to ensure the continued orderly and accurate working of the Fund.

September 3, 1999 Chairman Ellenbecker and Chief Counsel Steve Oxley attended a meeting of the Joint Corporations, Elections and Political Subdivisions Interim Committee in Saratoga. The purpose of the meeting, among other things, was to examine the continuing implementation of the Wyoming Telecommunications Act of 1995 and specifically the actions taken to date by the Commission in the form of rate case and rule making decisions. Along with other material, the Commission presented information regarding the potential impact of the Commission's decision in the latest U S WEST price plan case on the preservation of affordable essential local exchange service and the functioning of the Wyoming Universal Service Fund. Much information was exchanged about legislator and constituent concerns with the Fund and rising local exchange service prices. The Committee decided to make a further review of the possibility of improving the Fund and its operation. It decided to begin with an examination of 1999's House Bill 66, which addressed a number of universal service fund concerns but which died in conference committee.

September 8, 1999 The Commission conducted a public hearing in Cheyenne to determine whether or not to revoke the registrations of approximately 20 inter-exchange carriers for non-compliance with various provisions of applicable telecommunications law and the Commission's rules, particularly those regarding the utility assessment and the filing of annual reports. The Commission deliberated the case on September 9, 1999, and revoked the certificates of all those companies which had not made the required filings.

September 13, 1999 The Commission held a pre-hearing conference on Silver Star Telecommunication's request for a TSLRIC waiver pursuant to the Wyoming Telecommunications Act of 1995. Silver Star also filed price sheets for competitive service offerings in the Afton exchange and made a request pursuant to W.S. § 37-15-202 that its Afton service offering be found by the Commission to be subject to effective competition. The Commission set the TSLRIC waiver for hearing on February 14, 2000. The Commission approved the Silver Star request that its Afton local exchange service be found subject to effective competition under the Wyoming Telecommunications Act of 1995 and did so utilizing the expedited notice and order format for the first time in such a case. It was applied successfully and without objection.

September 16, 1999 In the "Phase IV" price plan filing of U S WEST to implement changes in its prices for essential and noncompetitive services, the Commission issued its Order Approving Price Plan. Included in the Order was approval of the agreements reached by McLeodUSA and the Consumer Advocate Staff which settled the issues they raised in the case. The rates were ordered into effect on October 1, 1999.

September 17, 1999 A Notice of Application and Order Setting Prehearing Conference was issued in the U S WEST/Qwest merger application, along with newspaper and radio announcements.

September 25 - 28, 1999 Commissioners Furtney and Lee and two staff members attended the semi-annual meeting of the U S WEST Regional Oversight Committee (ROC) in Denver. The ROC is a cooperative effort among regulators to exchange information and solve common problems on a regional basis in the fourteen states where U S WEST operates. The meeting agenda also included a tour of the advanced communications technology deployed at the AT&T (formerly TCI) Cable Learning Center in Lakewood, Colorado.

September 28, 1999 In the arbitration by the Commission of the interconnection agreement between AT&T and U S WEST for the purpose of competition in the provision of local exchange service in Wyoming, the Commission issued its Order on Joint Motion Requesting Waiver of Commission Order and Request to be Heard. The companies received a waiver of a portion of the Commission's latest order in the proceeding which had set that day as the deadline for the filing of a complete interconnection agreement in accordance with previous orders of the Commission. The parties decided between themselves to try to negotiate a "14-state" agreement applicable throughout U S WEST's territories. Suspension of the filing requirement is contingent upon successful progress toward such an agreement and will run on a month to month basis until June 30, 2000, when a final interconnection agreement is due to be filed with the Commission for approval under the federal Telecommunications Act of 1996.

September 30, 1999 U S WEST filed revisions to its toll tariffs (to be effective October 1, 1999) which the Commission had previously found to be competitive in nature, and thus free from price regulation under the Wyoming Telecommunications Act of 1995. The price changes in the tariffs were consistent with the proposed toll tariffs proposed by U S WEST as part of its most recent price plan filing (and before the Commission found the service to be competitive).

October 1, 1999, and thereafter The new U S WEST Phase IV prices went into effect after having been approved by the Commission after public hearing in June 1999. They directly affect about 80% of Wyoming telecommunications customers and indirectly affect many additional Wyoming customers of other companies (by changing the statewide average rates and thus, the universal service fund disbursements to them). The new prices meet the TSLRIC and competitive mandates of the Wyoming Telecommunications Act of 1995. Unfortunately, U S WEST's billing system was not fully prepared to implement the new rates on October 1; and substantial billing errors became evident for about 40,000 or more Wyoming customers. The Wyoming Universal Service Fund credit was not applied to the bills of customers in the rural zones; and, when many customers called U S WEST for information and assistance, they reportedly received uninformed and sometimes discourteous treatment. It was also learned that other errors had occurred which, coupled with the implementation of new rates, caused considerable problems for customers.

October 11, 1999 In response to the U S WEST prices which went into effect on October 1, 1999, the Commission prepared and sent to the members of the 55th Wyoming Legislature and to other interested persons a package of information to assist with constituent inquiries about prices and other issues, including billing error complaints, other bill line items and universal service fund questions.

October 11, 1999 The Commission issued its Notice and Order Approving Petition of Silver Star with respect to its petition to have its facilities-based local exchange telecommunications service in the Afton, Wyoming, exchange found to be subject to effective competition (by U S WEST, the incumbent provider) under the Wyoming Telecommunications Act of 1995. This action would remove the pricing jurisdiction of the Commission over this service. The notice and order format is an example of the Commission's use of innovative methods of disposition to reach an efficient result with the minimum of procedure but consistent with due process.

October 18, 1999 The Wyoming Supreme Court issued its opinion in U S WEST Communications, Inc., v. Wyoming Public Service Commission; et al. and AT&T Communications of the Mountain States; MCI Telecommunications Corporation; and McLeod Telemanagement, Inc. n/k/a McLeod USA, No. 97-146 (Oct. 18, 1999). After U S WEST unilaterally decided to cease offering Centrex Plus service to new customers and to place the service into its "obsolete" tariff, the Commission, after a 1996 hearing, decided that Centrex Plus was an "essential telecommunications service" which could not be discontinued without the

permission of the Commission. At the time, McLeodUSA was utilizing Centrex Plus via resale to provide local exchange service in several Wyoming cities in direct competition with U S WEST. In this opinion, the Court decided that U S WEST's Centrex Plus was not a "noncompetitive service" and that it could be withdrawn by U S WEST, even though it found U S WEST's method of "grandfathering" to be unreasonably discriminatory. U S WEST has sought reconsideration from the Court of that latter part of the decision, and McLeodUSA sought reconsideration of the decision regarding the status of Centrex Plus. Further information can be found in the November 2 and December 13, 1999, entries below.

October 22, 1999 The Wyoming Supreme Court issued its opinion in U S WEST v. Wyoming Public Service Commission, No. 98-82 (Oct. 22, 1999), concerning U S WEST's Integrated Services Digital Network (ISDN). The Commission had concluded in December 1997 that ISDN was a noncompetitive, essential telecommunications service and was therefore subject to regulation (including price regulation) by the Commission. The Supreme Court disagreed, saying that ISDN was not "necessary" within the meaning of the Wyoming Telecommunications Act of 1995.

October 22, 1999 The Commission issued its Order on Billing Errors and Related Problems to U S WEST regarding the problems surrounding its implementation of the October 1, 1999, price changes, requiring that the number and type of billing errors be identified, a curative plan established and that the results be verified by an independent audit. The Order further stated that U S WEST may have Wyoming Universal Service Fund support withheld pending accurate resolution of the problems. As part of its remedial efforts, U S WEST created a task force of specially educated customer account representatives to work on Wyoming complaint issues. Other Service Center employees were instructed to refer Wyoming questions to this task force.

October 28, 1999 The Commission held a pre-hearing conference in the U S WEST/Qwest merger case in its hearing room in Cheyenne, Wyoming. U S WEST, Qwest, AT&T, Tri County Telephone, TCT West, Tri-Tel, McLeodUSA, the Association of U S WEST Retirees of Colorado and Wyoming, wyoming.com, and the Commission's Consumer Advocate Staff participated.

October 29, 1999 The Commission issued a Notice and Order Setting Public Hearing and Procedure, scheduling a public hearing for April 11, 2000, at Cheyenne, Wyoming, and continuing as needed through April 14, 2000, in the case of the joint application of Qwest Communications Corporation, with subsidiaries (Phoenix Network, Inc., USLD Communications, Inc., and LCI International Telecom Corp., d/b/a Qwest Communications Services) and U S WEST Communications, Inc., (also considering U S WEST Long Distance, Inc.) for approval of the merger of their parent corporations, U S WEST, Inc., and Qwest, Inc., to form Qwest Communications International, Inc.

November 1, 1999 As required by the Commission's Order of October 22, 1999, representatives of U S WEST filed a written report with the Commission identifying and discussing its recent local basic telephone service billing errors which have affected some 50,000 customers. In the report, U S WEST outlined its plan to give credits to affected customers and otherwise to remedy the situation. This report and the refund plan remain subject to a special audit ordered by the Commission.

November 1, 1999 The Commission deliberated proposed telecommunications quality of service rules in its General Order No. 73 proceeding. These comprehensive rules, which have been in preparation for several years, are nearing completion and should be ready for final Commission order near the end of the year. Among other things, the rules establish construction standards.

November 2, 1999 The FCC released its Ninth Report and Order and Eighteenth Order on Reconsideration in Common Carrier Docket No. 96-45, In the matter of Federal-State Joint Board on Universal Service, making a written decision regarding high cost (universal service) support for non-rural telecommunications companies which, in Wyoming, only affects U S WEST. U S WEST's federal universal

service support would be frozen at the current level of about $4.4 million per year under a "hold harmless" provision of the Order. After a period of time yet to be determined by the FCC, this support would drop to about $3.2 million.
November 2, 1999 The Commissioners, Johnnie Burton, Department of Revenue Director, and members of both agencies' staffs met to discuss a number of utility issues. Among other things, the Commission and the Department of Revenue are working together to determine whether telecommunications resellers are paying appropriate property taxes in conjunction with leasing arrangements many of them have with facility-based telecommunications service providers.
November 2, 1999 U S WEST filed a Petition for Rehearing before the Wyoming Supreme Court in U S WEST Communications, Inc., v. Wyoming Public Service Commission; et al. and AT&T Communications of the Mountain States; MCI Telecommunications Corporation; and McLeod Telemanagement, Inc. n/k/a McLeod USA, No. 97-146 (Oct. 18, 1999). It asked the Supreme Court to reconsider the part of its decision which upheld the Commission's determination that the method of withdrawing Centrex Plus service was discriminatory. McLeod and AT&T Communications of the Mountain States, Inc., also filed their joint Petition for Rehearing, asking the Court to reconsider its decision that Centrex Plus does not constitute essential telecommunications service under the Wyoming Telecommunications Act of 1995.
November 3, 1999 Members of the Commission's Complaint Section traveled to Denver, Colorado, to help train U S WEST service representatives in the resolution of problems arising with respect to the implementation of U S WEST's October 1, 1999, price changes. The training was well received and may lead to annual coordination between U S WEST and Commission complaint personnel.
November 16, 1999 The Commission held public deliberations on possible telecommunications data speed requirements which were considered in the context of the General Order No. 86 proceeding.
November 30, 1999 The Commission issued an Order to Show Cause and Setting Public Hearing for December 16, 1999, at Cheyenne in the Commission's investigation into the service deficiencies and safety problems with the telecommunications services provided by Luxor Communications to the Mountainside Apartments in Cheyenne. Luxor was ordered to show the Commission why it should not [i] comply fully with the Commission's Order of March 25, 1999, and the applicable provisions of the Wyoming Telecommunications Act of 1995 (including becoming a certificated competitive local exchange carrier under W.S. § 37-15-201(b)); [ii] cease charging any unlawful fees or charges of any sort (i.e., charges not filed with the Commission according to law and by a noncertificated utility); [iii] comply with U S WEST's Resale/Sharing of Services tariff; and [iv] pay a fine of up to $1,000 per day of noncompliance with the relevant orders of the Commission.
December 2, 1999 Commissioner Furtney was confirmed by the Federal Communications Commission as one of five state public utility commissioners from throughout the nation to serve as members of the Federal-State Joint Conference on Advanced Telecommunications Services, commonly referred to as the "706 Joint Conference." The 706 Joint Conference brings together state regulators and the FCC to "examine how best to accelerate the deployment of affordable advanced services to rural, low-income, disabled, and other under-served telecommunications users." Since all five FCC commissioners are also members of the 706 Joint Conference, this provides Wyoming with a substantially increased ability to draw meaningful attention to the problems faced by rural and high-cost states in meeting the challenges of deploying advanced telecommunications services. One of the 706 Joint Conference forums for gathering data and information on advanced telecommunications service deployment may be a series of three or four public hearings around the nation. Wyoming has joined with Montana and South Dakota in proposing to hold one of these hearings in Billings in the March through May 2000 time frame. It will take the concerted

efforts of a coalition of western states by their Congressional delegations, Governors, State Legislators, businesses, citizens, regulators, and others to convince the FCC of the unacceptable degree to which broadband deployment is lagging in rural high cost areas.

December 7, 1999 The Commission made a presentation to the meeting of the Joint Corporations, Elections and Political Subdivisions Interim Committee on 1999 House Bill 66 and on certain Commission-suggested enhancements to it. The Committee decided to bring forward two bills in the 2000 Legislature addressing the Telephone Assistance Program and the Wyoming Universal Service Fund -- the two major topics of 1999 House Bill 66.

December 8, 1999 The Commission entered its Order Dismissing Petition and Closing Docket, ending its formal consideration of the request by certain customers for extended area service encompassing the Sundance, Hulett and Gillette areas. The companies involved are RT Communications, Inc., Range Telephone Cooperative, Inc., and U S WEST Communications, Inc. The order was based upon the Wyoming Supreme Court decisions in U S WEST Communications, Inc. v. Wyoming PSC, 958 P.2d 371 (Wyo. 1998), and U S WEST Communications, Inc. v. Wyoming PSC, 958 P.2d 376 (Wyo. 1998), which held, among other things, that, under the Wyoming Telecommunications Act of 1995, the Commission did not have pricing jurisdiction over customer-initiated EAS applications. Any petition to establish an EAS service area would therefore have to be filed by the utility or utilities potentially affected. (Within an EAS area, all calls are local in nature and no long distance charges apply, although there is an EAS additive charge on local telephone bills established to cover the cost of the service.)

December 8, 1999 The Commission entered an Order Dismissing Petition and Closing Docket concerning a similar EAS-like petition by customers in Weston County requesting that RT Communications create one countywide telephone exchange in Weston County, thus eliminating long distance toll calling in the County (essentially establishing a countywide EAS). The same Supreme Court decisions discussed directly above also applied in this case, preventing Commission action on the petition.

December 9, 1999 The Commission gave public notice of the proposed U S WEST sale of five Wyoming telephone exchanges to Citizens Telecommunications Company of Wyoming, a subsidiary of Citizens Utilities Company. The exchanges proposed for sale include Lusk, Afton, Mammoth, Lake and Old Faithful. In all, they include about 7,000 Wyoming access lines. Protests, interventions and hearing requests are due by January 10, 2000.

December 13, 1999 The Wyoming Supreme Court issued its opinion in U S WEST v. Wyoming Public Service Commission, AT&T Communications of the Mountain States, et al., No. 98-12 (Dec. 13, 1999). In its decision, the Court ruled that two sections of the Commission's local imputation rules, Sections 547 and 548, were promulgated without proper authority; and it struck them down. Section 547 required a telephone company which offered intrastate toll as well as local exchange service to impute to itself the same rate for the use of its facilities (and the other costs which it incurred in the provision of the toll service) that it charged to companies which interconnected with them. Section 548 mandated that incumbent local exchange telephone companies had to "charge" or impute to themselves the same wholesale costs that they charged a competitor who wanted to resell or to interconnect with the incumbent's network in the provision of local telephone service. The Commission adopted these rules to promote a level (i.e., procompetitive) playing field among competitors and incumbents for intrastate toll and local service. The Court suggested the mechanism of a price complaint under the Wyoming Telecommunications Act of 1995 as an alternative remedy for anticompetitive behavior of the type sought to be addressed in the Rules.

December 13, 1999 In U S WEST Communications, Inc., v. Wyoming Public Service Commission; et al. and AT&T Communications of the Mountain States; MCI

Telecommunications Corporation; and McLeod Telemanagement, Inc. n/k/a McLeod USA, No. 97-146, the Wyoming Supreme Court granted the petitions for rehearing of U S WEST and McLeodUSA, stating that "there is a reasonable probability that the Court may have arrived at an erroneous conclusion or overlooked some important question or matter necessary to a correct decision." The Court directed the parties to brief to discuss the proper interpretation of W.S. § 37-15-103(a)(iv) in light of its language and "the underlying purposes of the Wyoming Telecommunications Act of 1995." Parties were asked to discuss how that interpretation relates to telecommunications technologies such as basic local exchange service and Centrex.

December 13 and 14, 1999 Commissioners Ellenbecker, Furtney, and two Commission staff members met in Washington, D. C., with Federal Communications Commissioners Harold Furtchgott-Roth and Susan Ness, and several of their staff who are responsible for developing the non-rural (applicable in Wyoming only to U S WEST) high cost universal service support model. The Commission expressed concern over the model. Although this model affects only U S WEST in Wyoming, the new provisions of the model would significantly reduce federal universal service support for Wyoming citizens. Wyoming is seeking the assistance of other rural states, congressional officials, and the Governor's office to more adequately protect high cost rural telecommunications customers in Wyoming, and the Commission received supportive comments from the FCC Commissioners with which it spoke. The Wyoming initiative builds upon the still unfulfilled mandate of the federal Telecommunications Act of 1996 which requires available services and rates to be reasonably comparable in urban and rural areas throughout the nation. It has been suggested that Wyoming's best opportunity for further progress lies with our Congressional delegation. Other governmental and industry groups in Wyoming and the West have indicated interest in this initiative.

December 16, 1999 The Commission held a public hearing on its order to Luxor Communications (which provides local exchange service to the Mountainside Apartment complex in Cheyenne) to show cause why it should not have to comply with the Wyoming Telecommunications Act of 1995 by becoming a concurrently certificated local exchange company in competition with U S WEST, by allowing interconnection on a competitive basis with U S WEST, by ceasing to collect unlawful charges, by complying with U S WEST's Resale/Sharing tariff, by correcting numerous service outages and other problems, and by perhaps paying a fine of up to $1000 per day for violation of the Commission's March 25, 1999, order to it to comply with the law and remedy its service deficiencies. In deliberation, the Commission decided on Luxor's assurances to accept progress reports for the time being and not to levy a fine against Luxor.

December 29, 1999 The Wyoming Supreme Court issued its mandate to the Public Service Commission in its Docket No. 98-12, formally striking down Sections 547 and 548 of the Commission's TSLRIC rules concerning imputation. See also, December 13, 1999.

December 30, 1999 The Commission filed with the Federal Communications Commission a Petition for Reconsideration of the Ninth Report and Order and Eighteenth Order on Reconsideration entered by the FCC in CC Docket No. 96-45, In the Matter of Federal-State Joint Board on Universal Service. This decision will sharply reduce the federal universal service funding available to Wyoming (and remove all funding from the other western states) on the basis of cost modeling which does not take into account the actual circumstances of Wyoming and its local exchange service providers. Although this decision only affects U S WEST (as the only local carrier in Wyoming classified as non-rural") there is also great concern that such a result could also be in store for the smaller local telephone service providers when they become subject to a later and similar FCC proceeding.

December 31, 1999 - January 1, 2000 The work of Wyoming's utilities and the Commission produced an uneventful New Year not affected by Y2K computer

problems.

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b. Selected Telecommunications Regulatory Matters Now Pending

Resolution of pending court appeals involving TCT West, Inc., Tri County Telephone Association and U S WEST.

Disposition of TSLRIC compliance waivers requested by certain independent telephone companies.

The final interconnection agreement between AT&T and U S WEST regarding the provision by AT&T of competitive local exchange service in Wyoming, now expected to be in the form of a 14-state comprehensive agreement.

The application of U S WEST and Citizens Telecommunications Company of Wyoming to allow Citizens to purchase 5 local telephone exchanges from U S WEST (Lusk, Afton, Old Faithful, Mammoth and Lake).

The joint application of U S WEST Communications, Inc., and Qwest Communications Corporation for authority to merge.

The joint application of MCI WorldCom, Inc., and Sprint Corporation for authority to transfer control of Sprint to MCI WorldCom.

Numerous applications by smaller telecommunications companies to provide competitive local exchange or interexchange service in Wyoming; and numerous applications for approval of interconnection agreements.

Pending quality of service, data speed and other rules.

These are not all of the telecommunications cases now pending before the Commission. If you want more information about any case or utility described above or information on any telecommunications regulatory matter, please visit our data base at our Web Site at http://psc.state.wy.us/

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c. The Wyoming Universal Service Fund

The Wyoming Universal Service Fund (WUSF) carries out the mandates of the Wyoming Telecommunications Act of 1995, found at W.S. § 37-15-102, that Wyoming must "ensure essential telecommunications services are universally available to the citizens of this state while encouraging the development of new infrastructure, facilities, products and services" and "maintain affordable essential telecommunications services through the transition" to competitive markets. The fund was established on July 1, 1997, under W.S. § 37-15-501 of the Act. The fund was designed to ensure that no subscriber to basic telecommunications services in Wyoming would have to pay more than 130% of the statewide average rate for essential residential or business telecommunications services. It began with an assessment level of 1% of gross intrastate retail revenues for both business and residential telecommunications services with the assessment being listed as a line item on customers' bills.

The Commission adjusted the assessment level several times in open public hearings to more closely match the assessment level with the disbursement needs of the fund. The table below illustrates the assessment levels in effect during 1999:

Assessment Level	Docket Number	Effective Date	Order Issue Date
6%	90072-XO-98-41	0/1/98	8/31/98
3%	90072-XO-99-63	1/1/99	1/26/99
2%	90072-XO-99-107	1/1/99	5/18/99
3%	90072-XO--99-111	0/1/99	8/13/99

The 6% assessment level was based on a general rate case implemented by Union

Telephone Company and the effects of the filed price increase cases of U S WEST and United Telephone Company of the West d/b/a Sprint.

On June 25, 1999, the Commission approved the "Phase IV" price plan application filed by U S WEST and which constituted the last phase of its efforts to revise its local exchange service rates and other rates to cover their costs accurately as required in the Wyoming Telecommunications Act of 1995. U S WEST also requested a mid-period adjustment to its WUSF receipts. The approved price plan, which went into effect on October 1, 1999, increased the WUSF's projected annualized funding requirement from approximately $3,605,547 to $8,528,091, which was taken into account by the Commission in revising the assessment level to 3% effective October 1, 1999.

Because fund disbursements are based on a support threshold of 130% of the statewide average business or residential rate, the U S WEST price plan had a general effect on Wyoming telecommunications customers when it was implemented on October 1, 1999. The weighted statewide average price for residential service rose from $19.61 to $26.78. The support threshold also rose - from $25.49 to $34.81 per month. Persons who had received support for bills higher than $25.49 now will not receive support until their bills for residential basic local service are higher than $34.81. Conversely, the weighted statewide average for business service decreased because of the effect of U S WEST's new pricing. Business customers will start receiving subsidies if they pay more than $31.81 for a business basic service line. (U S WEST's business and residential basic service rates are now the same reflecting the fact that the costs of providing the two services are approximately identical.)

During the year, U S WEST opted to target the approximately $4.4 million that it expects to receive in Federal Universal Service Funds (FUSF) in 1999 exclusively to its high cost customers in the rural zones. This reduces the burden of the fund on all Wyoming telecommunications subscribers and directs the maximum assistance directly to the customers experiencing the largest price increases. The Commission approved the targeting of FUSF funds to the highest cost customers in the "Phase IV" case, even though federal high cost support is distributed to companies based on average study area costs.

In July 1999, the Commission issued a Request for Proposals for a Fund Manager and received three bids. At the end of the process, the Commission chose James Dinneen of Lathrop & Rutledge in Cheyenne, Wyoming, as the new Fund Manager effective November 1, 1999. Mr. Dinneen, an attorney, also brings important financial and trusteeship skills to the position and replaces the National Exchange Carrier Association, which provided management services during the first two years of the Fund's operation.

The Wyoming Universal Service Fund must remain flexible and capable of meeting Wyoming's changing needs. Below are examples of Commission decisions refining the working of the Universal Service Fund:

Not subjecting Internet Service Providers to assessment for the Fund

Keeping the number of lines per customer eligible for Fund support unrestricted

Specifying which services' revenues are subject to the WUSF assessment

Confirming that 911 emergency service lines are eligible for support

Including the local rates and line counts of competitive local exchange carriers in the computation of statewide averages

Reaffirming that companies may request mid-period true-up adjustments based on changes in revenues or line counts

Revision of the Universal Service Fund rules to allow monthly distribution and collection of funds (rather than retaining the previous quarterly interval)

Deliberation by the Commission in the General Order No. 85 proceeding on how to distribute the fund on a competitively and technologically neutral basis (this may become the subject of suggested legislative changes)

Decision by a majority vote that Fund assessments should be calculated on the

gross rather than net customer bills

At reporting time, certain topics still pending before the Commission are:

Whether paging companies should have to contribute to the Fund

Payphone providers as to their contributions into the Fund

Upcoming Fund activities include:

Possible inquiry into contributions into the Fund to be made by data-only local exchange carriers

A thorough audit of the Fund early in 2000

Additional streamlining of reporting and paperwork requirements of the Fund

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d. Federal Universal Service Issues

In 1999, the Commission continued to treat the adequacy of federal high-cost service support as one of its highest priorities. In the early part of the year, the Commission awaited FCC decisions which would clarify federal attitudes toward the rural, high-cost problems faced by Wyoming. In 1998, we, with governmental, legislative and industry support, presented the Wyoming Story and our need for federal universal service funds to federal regulators. In November, 1998, the Federal-State Joint Board on Universal Service made recommendations to the FCC that appeared favorable to Wyoming. However, the recommendation was not binding on the FCC, and several items regarding the specific mechanism to be used for supporting high-cost telephone service were absent from this recommendation.

After a series of interim or partial decisions by the FCC in 1999, it released a final decision on support for non-rural high cost carriers on November 2, 1999. In Wyoming, this decision only impacts the federal support to be provided to U S WEST and its customers under the new explicit federal universal service fund and not the long-term support for the rural, independent local service providers. The decision diminished the federal support available for U S WEST and was therefore disappointing. In the Commission's view, the FCC's action does not appear to be consistent with the federal Telecommunications Act of 1996's requirement that support be sufficient to make both available services and the rates for those services reasonably comparable between rural and urban areas of the nation.

In its November 2, 1999, decision, the FCC finalized its computer model which generates long-run, forward looking costs for determining the support to be provided to each non-rural carrier. The FCC then compares each company's modeled cost (which is unfortunately looked at on a statewide basis rather than a deaveraged basis) to 135% of the national average cost. Support is then provided for areas exceeding the 135% average. The result of this decision and modeling effort is that the federal support for U S WEST's Wyoming operations decreases. After the end of an imprecisely defined "hold-harmless" period, the amount of annual federal high-cost support for U S WEST will decrease from about $4.4 million to $3.2 million per year.

The Commission does not view this outcome as being acceptable for Wyoming and also understands that it may be a warning that the smaller companies in Wyoming may fare no better. In response, the Commission visited the FCC in Washington, D. C., to discuss options for maintaining an adequate level of support for Wyoming local exchange service subscribers. During this mid-December visit, the Commission and staff visited with Commissioners Ness and Furchtgott-Roth and several key FCC staff members. As a result, the Commission gained a better understanding of the steps taken by the FCC to model the costs as well as some of the logic employed in their modeling effort. This exchange of views will, we believe, help to continue a positive working relationship on this project. While the Commission continues to study the specifics of the decision, it is

clear that we must disagree with some of the key inputs into the FCC's model costs (e.g., loop lengths that might not allow for advanced services to be provided throughout much of Wyoming).

We also disagree that the FCC's decision either satisfies the spirit or carries out the letter of the federal Act regarding rate comparability, comparable service availability or sufficiency of funds. Thus, on December 30, 1999, the Commission filed a Petition for Reconsideration of this decision with the FCC. We have also, on December 15, 1999, filed reply comments requesting that the "hold harmless" period for the current level of federal support be continued for at least 36 months or longer in order at least to help maintain existing rates in Wyoming for as long as possible. A copy of the Petition for Reconsideration is attached to this Report as Appendix E. It presents a concise summary of important problems facing universal service support in Wyoming.

The FCC has set no deadlines for its decision on Wyoming's Petition for Reconsideration. During the interim, the Commission intends to remain actively engaged with the FCC at every proper opportunity concerning these events and their effect on Wyoming.

In addition to working on the problems of high-cost support for non-rural carriers, the Commission has also been involved in the examination of possible changes in high-cost, universal service fund support to the smaller rural, independent carriers. Most of this work is currently being done through our participation with the Rural Task Force (RTF), a group of federal regulators, state regulators, and industry participants charged with making recommendations in 2000 on the federal support mechanism for rural carriers. We have attended all three meetings of the RTF in 1999, and are preparing to attend the meeting in January 2000. We have shared technical and statistical information for some of the RTF's white papers and modeling discussions. The Commission will continue to be proactive in this process, understanding that the financial consequences of not doing so could present serious problems to rural companies and rural customers.

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e. The status of compliance with the Act

The great majority of telecommunications companies in Wyoming have accepted and are in general compliance with the Wyoming Telecommunications Act of 1995. For example, W.S. § 37-15-402(a) requires companies providing noncompetitive services to price their services so that each service covers its own total service long run incremental costs; and W.S. § 37-15-403 requires the elimination of cross-subsidies between and among the competitive and noncompetitive services of telecommunications service providers in Wyoming. Companies now in compliance, which have priced local service above cost, include Century Telecommunications of Wyoming, TCT West, Inc., Tri-County Telephone Association, Union Telephone Company, United Telephone Company of the West d/b/a Sprint and U S WEST Communications, Inc. Dubois Telephone Exchange has made a substantial TSLRIC transition. Golden West Telephone has been given a waiver, through the statutory limit of January 1, 2005, of the TSLRIC pricing requirement available to smaller local telephone companies under W.S. § 37-15-402(c). All West Communications, Chugwater Telephone Company, Project Telephone, Range Telephone Cooperative, RT Communications, Silver Star Communications and Teton Telephone have received interim waivers in the past and have requested additional waivers which the Commission is expected to consider in 2000.

The goal of pricing services to meet the Act's requirements for the elimination of cross-subsidies has been met generally by the companies which have to date come into compliance with the TSLRIC mandate of the Act. There is an ongoing

question as to whether the differences in the cost to serve individual customers in the larger and more urban exchanges as opposed to customers in the more rural exchanges would constitute a subsidy.
Luxor Communications, Inc., which provides service to the Mountainside Apartment complex in Cheyenne has been substantially out of compliance with the Act and was the subject of a recent show cause hearing regarding the numerous service and other problems experienced by the Mountainside subscribers. More information is available in the March 25 and December 16 chronology entries and at our web site.
Although Tri County and TCT West came into compliance with the TSLRIC mandates of the Wyoming Telecommunications Act of 1995 in April 1998, the two companies unilaterally filed highly disaggregated local exchange service rates ostensibly to be effective at the first of this year, some of which priced individual basic local exchange service at over $500 per month per line (and which lowered prices in larger and potentially more attractive markets). The actions of these companies were not supported by or provided for in an approved price plan under the Act, and the services in question are not subject to competition. The Commission ordered the removal of the prices from its files; and the matter is now before the Wyoming Supreme Court for determination in its Docket No. 99-248.
During 1999, the Commission conducted two sets of show cause hearings relating to issues of noncompliance with Wyoming law by certain interexchange carriers authorized to provide long distance service in Wyoming. As a result of these two proceedings, the Commission revoked the registrations and canceled the authority of 30 interexchange carriers to provide interexchange service in Wyoming. Most commonly, these smaller companies failed to comply with uniform assessment and annual reporting requirements. Also during 1999, 20 of the smaller interexchange carriers previously registered to provide long distance service in Wyoming voluntarily requested that the Commission cancel their authority to provide service. These requests were most often initiated because of changes in business plans and financial considerations.
On July 1, 1999, U S WEST appealed the Commission's newly promulgated interconnection rules in both United States District Court and Laramie County District Court. The state proceeding (Civil No. 154-229) was certified to the Wyoming Supreme Court which, on November 17, 1999, dismissed that certification without prejudice, allowing the Laramie County District Court to stay its proceedings in favor of the similar federal suit in U S WEST Communications, Inc. v. Public Service Commission, Docket No. 99-CV-136-D, which is now the only active appeal of the Commission's interconnection rules. The matter remains undecided.
During the reporting year, the Commission was determined by the Wyoming Supreme Court in three instances to be out of compliance with the Wyoming Telecommunications Act of 1995. These situations dealt with [i] Commission decisions from previous years concerning the competitive status of U S WEST's Centrex Plus and ISDN services and [ii] the Commission's promulgation of imputation rules governing the interconnection of carriers in the state. Further discussion of these decisions can be found above in the chronology entries for October 18 (Centrex Plus), October 22 (ISDN) and December 13 (imputation rules and the granting of a rehearing in the Centrex Plus case). On December 29, 1999, the Wyoming Supreme Court issued its mandate to the Commission striking down sections 547 and 548 of the Commission's Rules on TSLRIC.

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f. Competitive Provision of Local Exchange Service.
Both the Wyoming Telecommunications Act of 1995 and the federal Telecommunications Act of 1996 seek to foster the development of competition in

local exchange service markets. Both Acts, for example, require the incumbent local exchange carriers to open their networks to competitors to provide equitable interconnectivity with their networks and to offer retail services at wholesale prices suitable for resale.

By the end of the reporting period, the Commission had approved a total of 27 applications for concurrent certificates of public convenience and necessity to provide competitive local exchange service in Wyoming. These companies are authorized to provide competitive local exchange service in those Wyoming exchanges served by U S WEST under W.S. § 37-1-201(b), the exception being Sprint which was also originally authorized to serve in the Wyoming exchanges of United Telephone.

NameCertificate Date
AT&T Communications of the Mountain States, Inc.August 16, 1996
Sprint Communications CompanyAugust 28, 1996
Excel TelecommunicationsNovember 25, 1996
FirsTelMarch 17, 1997
McLeodUSA Telecommunications ServicesApril 14, 1997
WyoCom (wyoming.com d/b/a)April 24, 1997
MCIMETRO Access Transmission Services/MCIMETROApril 29, 1997
Tel-Save d/b/a The Phone CompanyJuly 1, 1997
Preferred Carrier ServicesAugust 20, 1997
Atlas CommunicationsSeptember 2, 1997
LCI International TelecomNovember 13, 1997
Group Long DistanceFebruary 20, 1998
Sterling International Funding d/b/a Reconex a/k/a AmertelMarch 17, 1998
Silver Star Communications (Afton exchange only)March 17, 1998

LDM SystemsMarch 19,1998
Dial and Save of WyomingApril 16, 1998
WorldCom TechnologiesMay 7, 1998
Eclipse CommunicationsJanuary 21, 1999
Level 3 CommunicationsMarch 16, 1999
NET-telApril 7, 1999
InTTecAugust 17, 1999
DSLnet CommunicationsAugust 17, 1999
JATO Operating Two Corp.August 23, 1999
Tri-TelSeptember 30, 1999
New Edge NetworksNovember 30, 1999
All-West/WyomingDecember 20, 1999
MVX.com CommunicationsDecember 22, 1999

Among these companies, McLeodUSA is active in the Cheyenne, Casper, Laramie, Lander, Riverton, Rock Springs, Gillette and Sheridan local exchange service markets. Silver Star offers direct facilities-based competitive local service in Afton, and All-West is far advanced in its planning for local exchange competition in the western part of the state. AT&T, under a partial interconnection agreement with U S WEST approved by the Commission, offers competitive Outbound ADL business services. Other companies are in various stages of advertising and otherwise preparing to serve.

You may obtain more information about these competitive local exchange service providers by contacting them at the addresses listed in Appendix B to this Report.

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g. Interconnection and Resale of Local Exchange Service.

In the Wyoming Telecommunications Act of 1995, W.S. § 37-15-404(d) requires telecommunications companies to "disclose in a timely and uniform manner information necessary for the design of equipment and services that will meet the specifications of interconnection; . . . ." Subsection (e) of this statute gives the Commission the power to promulgate rules, among other things, for interconnection of networks at nondiscriminatory and reasonable rates, terms and conditions; for the unbundling of services into reasonable basic network features; and for the resale and sharing of services and functions at reasonable and nondiscriminatory rates. These provisions are mirrored by the federal Telecommunications Act of 1996 which, at §251(a)(1), imposes a duty on telecommunications providers to interconnect with the facilities and equipment of other telecommunications carriers; and which, at § 251(c)(1), imposes a duty on incumbent local exchange carriers to negotiate interconnection agreements with a competitive carrier requesting one. If they cannot reach agreement, § 252 of the federal Act provides for the arbitration by state commissions of disputes regarding interconnection negotiations.

By December 31, 1999, the Commission had approved the following negotiated interconnection agreements for use in providing service in Wyoming under Section 252 of the federal Telecommunications Act of 1996, including 14 agreements approved during the reporting period. Approved agreements with U S WEST Communications, Inc., include agreements with MetaComm Cellular, CommNet Cellular, AirTouch Cellular, FirsTel, Western Wireless, Nextel West, Sprint Communications, Knight Communications, Comm South Companies, Dakota Services, Silver Star Communications, 3 Rivers PCS, RT Communications, Sterling International Funding d/b/a Reconex a/k/a Ameritel, Preferred Carrier Services, NET-tel Corporation, Advanced Communications Group, Tel West Communications, WYOCOM (wyoming.com), Topp Comm, Covad Communications, CCCWY d/b/a/ Connect!, Computer Business Sciences, AT&T Communications of the Mountain States, Inc. (partial, as noted), NOW Communications, U S WEST Wireless, DSLnet Communications, and New Edge Networks.

Approved interconnection agreements with United Telephone Company of the West include agreements with Dakota Services, U.S. Telco, Tin Can Communications, EZ Talk Communications, and dPI-Teleconnect.

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h. "1+" IntraLATA Equal Access

Under W.S. § 37-15-410, local exchange companies must provide intraLATA "1+" equal access by January 1, 1998, where technically and economically feasible. This dialing parity promotes competition in the instate long distance market by allowing a customer to preselect a carrier for instate long distance calls which can be reached by dialing "1" plus the telephone number without the need to use "dial around" or other multidigit alternatives to reach the chosen carrier. "1+" equal access also applies to pay telephone providers. Under § 276 of the federal Act, the selection of a carrier for pay telephone service must be made by the payphone location owner; and payphone service providers may negotiate a contract with the location owner regarding service.

The list of carriers available in various exchanges varies, but the list of carriers initially seeking business in Cheyenne illustrates the vigorous nature of the market, which included established and new firms of varying sizes. All but two of these companies offered both residential and business "1+" service.

Cable & Wireless, Inc.Phoenix Network
Amerivision/LifelineAT&T
Sprint Dial ":1" ServiceLCI International
FrontierDial & Save

ITC Networks/NEXTLINKTeltrust Communications Services

Wiltel/WorldcomNTC Long Distance
Cincinnati Bell Long DistanceWorking Assets Long Distance
WCS Dial OneExcel telecommunications
MIDCOM CommunicationsVartec Telecom, Inc.
American TelecomAthena International, LLC
Telecom USA [residential service only]Teleconnect [business service only]
Union Telephone CompanyTelephone Express
The Furst GroupInter-Tel NetSolutions
U S WEST CommunicationsGTE Long Distance
Qwest CommunicationsMCI Telecommunications

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i. The Effects of Wyoming Regulatory Policies and Practices on Telecommunications Companies, Services and Customers

The Wyoming Telecommunications Act of 1995 and the federal Telecommunications Act of 1996 continue to have a profound impact on the telecommunications industry in Wyoming. Competition has sharpened in the reporting year for the business of Wyoming customers in interstate, intrastate and local service markets, with increasing emphasis on the competitive entry into the local exchange service markets, led by Silver Star Communications, McLeodUSA and, with respect to certain larger volume business services, AT&T.

In Section 2 of this report is a discussion of the proliferation of local and long distance telecommunications service suppliers and the increasing number of interconnection agreements allowing for (but not always guaranteeing the provision of) competitive local exchange service.

Perhaps the most visible effect of the implementation of the Wyoming Telecommunications Act of 1995 has come with the final steps taken by U S WEST to comply with the TSLRIC and elimination of cross-subsidy provisions of the Wyoming Telecommunications Act of 1995. This has caused residential prices to rise and most business prices, along with in-state long distance and access prices, to drop. Because U S WEST serves approximately 80% of the access lines in Wyoming, this has changed the weighted statewide average business and residential basic local service prices and therefore has decreased by over $9 the amount of support available from the Wyoming Universal Service Fund to individual residential customers of all telephone companies. Formerly, the fund supported basic local service prices to the extent they exceeded $25.33. Now, this support is available only for that portion of the basic local service price which exceeds $34.81. The Legislature is examining alternatives to an average-driven support mechanism.

The rise in prices for local exchange service has caused some migration of customers from traditional land line telephones to cellular service as their main source of telecommunications service. We do not know the extent to which that trend will continue in the future.

Another effect of regulatory policy is seen in the Commission's effort to streamline the approval process for certification of local exchange competitors, for interconnection agreements and for the disposition of other applications. The Commission has, for example, approved Silver Star Communications' application to have its Afton local exchange service found subject to effective competition on a notice and order basis, making the process simpler, quicker and less costly than would have been the case in the past. The development of information packages for potential competitors have helped them through the

registration or certification process, as applicable, more quickly and at a lower cost. The Commission is continuing an effort to simplify the disposition of cases.

Although we do not regulate the service offerings of cellular providers (except for quality of service and the arbitration of certain controversies), we understand that Wyoming cellular markets continue to experience vigorous growth and that more cellular service offerings are now routinely and widely available to and accepted by the general public. Cellular competition appears to remain vigorous and is beginning to see additional competition through PCS digital wireless service.

Finally, long haul fiber optic companies have begun to take seriously Wyoming's need for additional bandwidth as a tool for economic development, and they are joined by local service providers anxious to apply this high speed resource to the state's telecommunications needs. Access to fiber optic connectivity is increasing and technology has allowed smaller points of presence to become economically feasible, but there is still much development to be accomplished in this area.

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j. Telecommunications Slamming, Complaints, and Related Matters

i. Slamming. The practice of changing a telephone customer's long distance carrier without knowledge or authorization is called slamming. Slamming accounts for approximately 11% of the complaints received by the Commission; and it is a consumer problem generated by the competitive telecommunications environment. Since most slamming occurs with interstate long distance service, jurisdiction, in most cases, lies with the FCC. Wyoming's slamming and cramming law, W.S. § 37-15-412, gives the Commission jurisdiction over intrastate offenses and has acted, we believe, as a deterrent to the growth of in-state slamming. Our emphasis has been on the rapid correction of consumer problems and in discussing emerging slamming problems with companies which experience more than isolated slamming complaints.

The Commission and its complaint section will help Wyoming customers experiencing either state or federal level problems to obtain information and to resolve slamming problems effectively in the proper forum. The Commission's brochure on the subject, Telephone Slamming: You don't have to be a victim!, is available free of charge. This and other steps taken by the Commission and its complaint section to educate the public in dealing with slamming and cramming problems has helped to reduce the volume of filed complaints.

A further reduction in filed slamming complaints can also be attributed in part to the FCC's tougher slamming rules issued in April 1999. The FCC rules exempt slamming victims from paying long-distance phone charges to the offending company for 30 days and anticipates that consumers would be switched back to their long-distance carrier of choice during that 30 day interval. However, if the subscriber continued to be wrongfully billed after 30 days, the person would not have to pay the offending company anything. Victims would instead pay their designated carrier at that carrier's normal rate. It is interesting to note that, when the Wyoming Legislature passed the 1998 slamming bill in 1998, it specifically outlawed negative marketing option techniques. The new 1999 federal rules also do not allow negative marketing techniques.

ii. Telecommunications complaints. The overall number of utility complaints received by the Commission increased from 1,373 in 1998 to 1,886 in 1999. The following table, containing a breakdown of the complaints received by the Commission during the reporting year, places the volume of telecommunications complaints into perspective:

WaterGasElectricLocal

TelecommunicationsLong Distance
Telecommunications
1%6%10%63%20%

As the Wyoming Telecommunications Act of 1995 approaches its fifth anniversary, the nature of telecommunications complaints, mirroring the pace of change in telecommunications markets, has continued to change. Although many complaints still concern more "traditional" subjects such as the quality of support for advanced services, availability (or not) of service enhancements, and billing discrepancies and disagreements, other issues, such as the problems surrounding the billing errors which accompanied the October 1, 1999, implementation of the latest U S WEST price plan have also appeared. By the time of this report, the large volume of consumer complaints concerning billing errors had subsided, even if complaints from persons not satisfied with the October 1 price changes has not.

iii. Newer types of complaints. During the reporting year, there was a significant increase in the number of Wyoming consumers being solicited by telemarketers for long distance companies who offer long distance plans providing both intraLATA and interLATA service and offering special per-minute rates. When the bills arrive, the billed rate is often much higher than the plan originally seemed to offer. Long distance companies have acknowledged that they never offered this plan and that the rate on the bill was accurate.

When consumers change from one long distance provider to another, the first company may not send the proper request to the local exchange carrier to release the line to the newly chosen long distance service provider. This problem can be so persistent that sometimes the only way to free a telephone subscriber is to ask the local exchange company for a new telephone number (which also makes current telephone directory listings inaccurate).

We have found situations in which consumers receive a bill from two carriers for the same call; and, sometimes when consumers attempt to resolve such long distance service issues, the telephone numbers provided either do not answer, are cut off, or result in persistent "on hold" status. When consumers call the local provider, the local provider advises the customer to contact the long distance company listed on the bill. Many consumers are not pleased with having to pay a "blocking" charge to a local exchange company when declaring a desire not to have a presubscribed long distance carrier.

Some consumers are confused when they use a dial around number (10-10-XXX) and the relatively unfamiliar call appears thereafter on their monthly telephone bill. It may appear to the customer as if a slamming has taken place.

Additionally, the numerous other charges listed on telephone bills remain little understood by consumers and the Commission's complaint section assists customers by providing explanations and further information on these charges. Federal and Wyoming Universal Service Fund assessments and credits, for example, are objects of inquiry, as are U S WEST's "distance charges" which represent the explicit statement of zone charges for persons living outside of U S WEST base rate areas (reflecting the additional cost to serve persons farther from the local telephone switch). These charges were, in the past, not stated separately.

Sometimes just reading and understanding the telephone bill has become more difficult. Through explaining the charges and consulting with telecommunications companies regarding commonly encountered problems with their bills, we are working to improve the understandability of telecommunications bills and to help companies to be more effective in satisfying customer billing information needs.

iv. Information requests. In addition to the complaints received during the reporting year, we have also received 231 information requests from customers which are not formal complaints. These questions are driven by the more complex nature of the industry, the need for additional and higher speed service, the new choices of services and service providers facing the public in Wyoming, and

a desire for additional information about various price increases.
v. Speeding up the process. Wyoming utilities continue to be generally responsive in sharing information about complaints and about employing e-mail in resolving them more rapidly. They usually respond promptly to our policy of requesting statements in writing within five working days about the resolution of individual complaints. This helps speed up complaint resolution for the consumer, the utility and for the Commission. Because of the increase in the volume of complaints (and sometimes also because of the difficulty of locating some complained-of interexchange service providers), the number of unresolved complaints carried over each month averages 207.
vi. Toll free assistance. Since 1998, the Commission has maintained an 888 toll-free number for the use of Wyoming persons bringing complaints to the attention of the Commission.
vii. Confidentiality. As always, customers bringing complaints to the Commission can be assured that the facts of their individual situations will be treated confidentially.

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k. Recommendations for Legislative Change.
We believe that the most important legislative changes which should be made to improve the functioning of the Wyoming Telecommunications Act of 1995 concern the Wyoming Universal Service Fund. We present these ideas conceptually, understanding that there are varying opinions as to how the changes should be carried out.
i. The fund should be competitively and technologically neutral. No market participant should be given an undue financial advantage or disadvantage because of how the fund works. No customer should make the decision to utilize a particular carrier simply because of the fund. No telecommunications technology actually providing basic service should be excluded from obtaining support from the fund.
ii. Fund support should be explicitly portable. That is, when a customer switches from one competitive local carrier to another, the support pertaining to that person's service should also go to the new carrier.
iii. The mechanism for determining support should be more stable and predictable. Customers of one company should not have to experience changes in their prices due to the effect that another company's price changes have on the statewide weighted average service price and thus the support threshold. At this point, we believe that a support threshold expressed as a fixed dollar amount per residential or business line would be an improvement and one which would be welcomed by the public. Any policy limitations to be imposed on the number of lines eligible for support should also be considered.
iv. When universal service fund support is portable to competitive carriers, the amount of support should be the same amount as the incumbent carrier received for that customer. Although this does not perfectly mirror the costs of competitive carriers in providing service, it avoids, fairly and simply, the extremely complex, expensive and slow process of making a regulatory determination of the costs of every competing carrier in Wyoming.
v. As the federal universal service fund mechanisms make the transition to being explicitly cost-based, the Wyoming fund, now a price-based fund, should also have the ability to make a smooth transition to being cost-based also. Such a change would allow companies to be more vigorous in pricing competitively and would make the relationship between federal and state support more compatible.
vi. When dealing with new telecommunications technologies offered by companies which seek to obtain support from the Wyoming Universal Service Fund, the Commission should have the ability to designate which of the services qualify

for support. Basic local service, supportable under the Fund, might, in some cases, be only a component or group of components of a technologically complex service offering. This does not mean that the Commission should engage in ratemaking in a competitive market but rather that it should ensure that the Fund works fairly.

vii. Should the rate to which the Wyoming Universal Service Fund assessment is applied be the gross cost-of-service based price or the net cost paid by the customer?

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Section 2

The Telecommunications Industry in Wyoming

a. Introduction.

This section of the report provides a general description of the Telecommunications industry in Wyoming, the technology employed, and the availability of various services. It is shorter than in past years because of the steady improvement of telecommunications systems in Wyoming and because the differences in availability of many features and functions are less dramatic than in the past. This section should be read in conjunction with Appendix D, which contains detailed exchange-by-exchange information on the telecommunications technology deployed, the nature of the interoffice plant in service and the specific services which are generally available in the various exchanges (with new services or technology highlighted in boldface type). Questions about the availability of particular services in particular places within exchanges and the existing unused capacity of local telecommunications plant should be directed to the telecommunications service providers themselves. However, information regarding capacity is generally considered to be highly confidential and very commercially sensitive by the service providers.

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b. Number, Type and Size of Companies.

There are 14 facilities-based local telephone companies (also called Incumbent Local Exchange Carriers or ILECs) providing local exchange service in Wyoming. There are approximately 303,107 access lines in service in the state at this time, an increase of 6,128 or about 2.06% over 1998. U S WEST, Wyoming's predominant ILEC, provides service to approximately 253,873 of the state's access lines. The remaining access lines are served by the 13 independent local telephone companies. Appendix A to this report contains a brief summary of the basic facts about Wyoming ILECs, and Appendix F provides a map of the certificated territories of Wyoming's incumbent local exchange companies. When the Wyoming Telecommunications Act of 1995 went into effect on March 1, 1995, there were 24 interexchange (long distance or toll service) resellers and nine facilities based interexchange carriers providing long distance service in Wyoming. Before the Wyoming Telecommunications Act of 1995, there were no Competitive Local Exchange Carriers (CLECs) in Wyoming; but now there are 27, as shown in Appendix B to this report. Because the interexchange resale market is so dynamic and characterized by numerous new entrants, acquisitions, mergers and other business reorganizations, please see the listing of companies participating in the Wyoming market at the Commission's web site. Facilities-based companies own physical telecommunications facilities which may be used to transport traffic on their own systems, while resellers purchase or lease plant from facilities-based providers to transport traffic.

Facilities-based carriers do not necessarily carry all of their traffic over their own facilities and may purchase or lease facilities of others to help furnish the needed services.

By December 31, 1999, the combined number of resellers, interexchange resellers and facilities-based carriers serving Wyoming had increased to 330, a net increase of about 900% since 1995 including the registration of 68 new interexchange carriers during the reporting year. By the end of the reporting year, 27 CLECs had been certified to provide local telephone service in those Wyoming exchanges served by U S WEST, although widespread competition has yet to occur throughout all of the relevant exchanges. Although many CLECs originally applied for authority to serve the entire state, W.S. § 37-15-201(c) limits immediate competitive entry into the local exchange markets of companies with fewer than 30,000 access lines in Wyoming. Companies protected by this statutory provision can voluntarily waive the protection of statute, and Sprint/United Telephone Company of the West has done so. The validity of this section of the Wyoming Telecommunications Act of 1995, which the FCC has declared to be preempted by the federal Act, is now on appeal in the United States Court of Appeals for the Tenth Circuit.

With respect to long distance telecommunications services, customers now generally have a wide selection of carriers and choices of many differing terms, conditions and prices which have been brought about by the functioning of the competitive market. Competition in the local exchange service markets in Wyoming has not developed as rapidly because Wyoming lacks large high volume urban markets of relatively easily served customers. Resale of services is an easy and rapid way to enter into local market competition, but it does not always provide an attractive return to the competitor. Facilities-based competition, seen by many as the more stable and long term competitive option (and the one offering the most possibilities for technological advancement), requires substantial expenditures for the facilities needed to provide competitive local service. Although many smaller competitors do not have the financial capabilities for this type of market entrance, companies such as Silver Star Communications show that it is possible to be technologically advanced and successful in such an endeavor in Wyoming -- even in a relatively small market.

Additionally, some companies having interconnection agreements with U S WEST have not yet begun providing local telephone service partly because some aspects of their agreements refer to an AT&T interconnection agreement for certain specific contract terms. U S WEST and AT&T have asked for time until the middle of 2000 to conclude a comprehensive agreement.

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c. Technologies in use and under development.

During the past year, much additional emphasis has been placed on the need for higher speed data transmission serving residences and small business. The technology that appears now to be at the forefront is a Digital Subscriber Line (DSL) application. With DSL, the existing subscriber line (loop) is used in the traditional manner, but DSL will also support a second signal, carrying digital data, on the same line. The resulting service is a high speed data service known as xDSL, which is provided together with regular voice-grade service. A strength of the xDSL concept is that both services can be used simultaneously. The x in xDSL is a generic place holder which reminds us that there are several forms of Digital Subscriber Line service available. ADSL, Asymmetrical Digital Subscriber Line service appears to be the most widely deployed. It makes efficient use of the fact that digital data users usually need to download larger amounts of data than they need to upload to others.

Modems have been the primary means through which residential and small business

customers have accessed the Internet. The ability of modems to achieve acceptably high speeds over the existing voice-grade lines within the public switched network has improved. Advances in technology have allowed modems to reach higher effective transfer rates up to 53 Kbps, as limited by the FCC. Although the Wyoming public switched network voice system has evolved with high speed digital interoffice connections and virtually universal digital switching, much of the local loop plant (the wires which connect the individual customer with the local switch) needs additional upgrading to produce optimal modem speeds and to support the availability of more sophisticated services. Integrated Service Digital Network service (ISDN) has become available in several areas in Wyoming. It offers a switched data service capable of 128 Kbps. While the initial demand for ISDN appeared strong, the industry's offering of xDSL has caused the demand for ISDN to be virtually stagnant.

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d. Differences in geographical availability in Wyoming

As the system becomes more thoroughly modernized, differences in geographical availability of services, as well as the number of new services being offered for the first time, tend to diminish. For example, except for the Gas Hills and Jeffrey City exchanges, the state possesses virtually universal digital switching and interoffice facilities. Digital provisioning considered by itself, whether furnished by fiber or by radio, does not provide unlimited digital capability; and several areas in Wyoming require or will require additional digital service capabilities. Central office offerings (those services offered through the local switch) have generally exhibited minimal changes and additions. Please see the central office offerings set forth in Appendix D to this report.

With the completion of the Wyoming Educational Network, the superior performance of Asynchronous Transfer Mode (ATM) technology will provide high bandwidth, low delay, packet-type transmission on an interoffice basis. In areas where radio has been the transmission medium, there have been some capacity constraints. This has been most notable in the areas north and north west of the Casper. Outages on the northern system due to fiber cuts and power outages are a lingering concern along with the capacity concerns.

U S WEST offers MegaBit in the Cheyenne exchange but only to subscribers on loops less than 15,000 - 18,000 feet from the central office. This loop length constraint is significant throughout Wyoming and is currently inhibiting the provision of a ubiquitous optional high speed data service. Independent local exchange carriers have virtually replaced all of their slower-speed analog carrier with faster digital facilities (often fiber optics), and U S WEST has reduced its active analog inventory which is still serving Wyoming customers. While a great deal of upgrading of outside plant has occurred, there is much yet to be accomplished.

The smaller independent telephone companies appear to be well positioned to offer higher speed data services, and they are led by Silver Star Telecommunications and Tri County Telephone Association/TCT West. However, many independent companies are linked closely enough to the U S WEST backbone facilities, that any capacity restraints on that system appear also in the service of the affected independent company.

Solving data transmission problems can be done through the use of dedicated high capacity lines -- facilities suitable for larger businesses or those having heavy data transfer needs. Unfortunately, there have been persistent reports of insufficient T-1 facilities at several locations in Wyoming and continued reports of extended installation times for many T-1 (or faster) facilities. The extent and duration of the delays vary; but some of them appear to be caused by

intraexchange capacity restrictions as well as interoffice capacity deficiencies. This remains a troublesome problem because of the important economic development role played by high bandwidth services.
Among other technological developments, the Williams, Enron and IXC Communications companies are crossing Wyoming with high speed and high capacity fiber networks. Although these are considered to be "long haul" operations rather than local due to the nature of the operations involved, IXC has, for example, created partnerships with local service providers to give them direct access to high speed facilities. IXC has also offered the possibility of scaling the size of particular "points of presence" (essentially a switching facility at which the local and long distance networks connect) to make access available to markets having smaller or larger numbers of lines at an affordable price by "rightsizing" the facilities.

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e. Telephone Subscribership Levels in Wyoming

The percentage of households that have telephone service is a good measure of the universality of telecommunications service; and the United States Bureau of the Census (Census Bureau) collects relevant data as part of its Current Population Survey, which monitors trends between the complete ten-year censuses, all under an ongoing arrangement with the FCC. This undertaking allows the FCC, state commissions and others to examine the possible effects of various actions on household decisions to maintain, acquire or drop telephone service. The Industry Analysis Division of the FCC's Common Carrier Bureau is the source of the Wyoming telephone subscribership information in this Report.
The two generally accepted basic measures of subscribership levels are [i] telephone service within the housing unit ("unit") and [ii] telephone service elsewhere which is available at a common location to the people in the housing unit, such as a hallway, clubhouse or other nearby shared area ("available"). The most current penetration rates for Wyoming, as of August 1999, are set forth in the table below, together with comparative data from previous reports.

Wyoming

Date"Unit""Available"
August 199995.0%95.6%
August 199894.8%95.2%
August 199792.7%94.5%
August 198489.9%92.8%

Wyoming has experienced a statistically significant increase in penetration rates measured between 1984 and 1999, and has also shown modest increases in the "Unit" penetration and "Available" statistics since the previous year. Note that these measurements do not cover the use of wireless services such as cellular and PCS. The summary table below sets forth the nationwide average penetration rates for the same points in time as those presented above for Wyoming.

Nationwide Averages

Date"Unit""Available"
August 199994.4%95.3%
August 199894.1%95.2%
August 199793.9%95.0%
August 198491.6%93.7%

The more comprehensive table below presents comparative data on individual state penetration rates, measured on a "Unit" basis during the reporting year and for a 1983 historical baseline.

Telephone Penetration by State
(Percentage of Households with Telephone Service)

State	1983	August 1999	Change
Alabama	87.9 %	92.6 %	4.7 %
Alaska	83.8	94.6	10.8
Arizona	88.8	92.4	3.7
Arkansas	88.2	90.5	2.3
California	91.7	96.5	4.8
Colorado	94.4	97.2	2.8
Connecticut	95.5	97.6	2.1
Delaware	95.0	94.4	-0.6
District of Columbia	94.7	92.7	-2.0
Florida	85.5	93.3	7.8
Georgia	88.9	91.2	2.3
Hawaii	94.6	97.4	2.8
Idaho	89.5	95.1	5.6
Illinois	95.0	91.7	-3.3
Indiana	90.3	93.7	3.4
Iowa	95.4	96.3	0.9
Kansas	94.9	92.1	-2.8
Kentucky	86.9	93.3	6.4
Louisiana	88.9	92.2	3.3
Maine	90.7	96.9	6.2
Maryland	96.3	94.1	-2.2
Massachusetts	94.3	94.7	0.4
Michigan	93.8	94.3	0.5
Minnesota	96.4	97.5	1.1
Mississippi	82.4	89.1	6.7
Missouri	92.1	97.1	5.0
Montana	92.8	95.4	2.6
Nebraska	94.0	97.0	3.0
Nevada	89.4	94.9	5.5
New Hampshire	95.0	97.9	3.0
New Jersey	94.1	92.4	-1.7
New Mexico	85.3	90.9	5.6
New York	90.8	95.4	4.6
North Carolina	89.3	94.3	5.0
North Dakota	95.1	98.9	3.8
Ohio	92.2	94.8	2.6
Oklahoma	91.5	91.3	-0.2
Oregon	91.2	95.8	4.6
Pennsylvania	95.1	96.9	1.8
Rhode Island	93.3	94.6	1.3
South Carolina	81.8	91.1	9.3
South Dakota	92.7	94.5	1.8
Tennessee	87.6	94.9	7.3
Texas	89.0	93.5	4.5
Utah	90.3	94.6	4.3
Vermont	92.7	94.5	1.8
Virginia	93.1	93.0	-0.1
Washington	92.5	96.8	4.3
West Virginia	88.1	92.7	4.6
Wisconsin	94.8	95.7	0.9
Wyoming	89.7	95.0	5.3

Total United States91.4 94.4 3.0

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f.The Wyoming Equality Network: Telecommunications Technology Serving Education in Wyoming.

In 1995, the Wyoming Supreme Court, in Campbell County School District v. State, 907 P.2d 1238 (Wyo. 1995) issued its decision on equity in education. This decision was followed by legislation in 1997 [i] requiring the development and implementation of a statewide education technology plan [W.S. § 21-2-202(a)(xx)]; and [ii] directing the Governor and the State Superintendent of Public Instruction to form a committee to draft and issue a request for proposals to provide the opportunity for connectivity for data transfer between schools and interactive video between all high schools in the state. This has been accomplished through two phases. Each phase required an RFP.

During the first phase, Governor Geringer and Superintendent Catchpole accepted the RFP Panel's recommendation; and U S WEST was awarded a contract to provide data connectivity to all schools. The cost, as proposed by U S WEST, totaled $26,298,847 over eight years, including a cost of $18,053,735 the first five years of which $9,262,928 was applied during the 1999-2000 biennium. It will provide for network services, frame relay services, ATM-CRS services, private line services, data equipment, satellite service maintenance and management services. The project, officially known as the Wyoming Equality Network, covers the entire state; and Wyoming's independent telephone companies, in partnership with U S WEST, are responsible for substantial portions of the system. Additionally, the State has selected McLeodUSA as the interexchange carrier to carry interLATA traffic to Torrington.

The new network is basically a high-speed, broadband digital data access network which offers several unique and flexible features. It will provide equitable access and is scaleable, manageable, standards-based, and future-oriented, as well as being compatible with the existing telecommunications infrastructure of Wyoming's local exchange service providers, including U S WEST and the independent telephone companies.

All schools have been connected to the State's education Intranet. U S WEST and the independent companies met timelines even with the U S WEST strike in early August 1999. U S WEST worked with the State to establish a more cost effective connectivity solution for twelve remote rural schools. The solution which was proposed and accepted was satellite-based. This solution utilizes both uplink and downlink capabilities of the satellite.

Phase two began with an RFP for video equipment. Tandberg was awarded the contract in June 1999. Schools have been given the option of a student and teacher site. The difference in the two types of sites is in the amount of equipment required for a teaching site. Along with the video equipment, the State has purchased a state-of-the-art video bridge. The bridge has the capability to expand in both size and technology. For example with the technology moving to the H.323 Internet Protocol for video, the bridge will allow Wyoming to take advantage of this new technology when it is not so bandwidth intensive.

Technologically, the network will use public or private Asynchronous Transfer Mode-Cell Relay Services (ATM-CRS) to serve up to eight aggregating points with DS-1 service (at a speed of 1.544 Mbps) from these points to the State's high schools to provide for interactive video and data transfer and to enable 56 kbps circuits for data transfer to all other schools in the state.

Bringing new technology like ATM-CRS into Wyoming affords possibilities for many new communications applications for Wyoming, and this leading-edge technology is

recognized for its integration capabilities. Regardless of the type of information sought to be carried -- voice, data or video -- seamless transport is provided by prioritized delivery. The technology, when deployed, will allow the data network to deliver greatly enhanced performance with the attendant increase in the ability to handle the faster and more efficient transfer of data and the ability to offer data capabilities beyond those which would be possible in a combined voice/data environment. A plan has been worked out whereby the network will allow equal access by the Internet Service Providers (ISPs) designated by the school districts through special equipment housed at the Emerson Building in Cheyenne.

The aggregation of the schools to address their common communications technology needs on a statewide basis provides U S WEST with the "anchor tenant" which makes the deployment of this new technology feasible for other businesses as well -- a significant benefit given the rural and sparsely populated character of the state and the investment required.

ATM-CRS could not exist in a vacuum. The concerted efforts of Wyoming's telephone companies in upgrading central offices with digital capabilities and connecting these offices with digital interoffice carrier facilities has made this innovative project possible.

For the next biennium, a request of $7,524,592 has been submitted to cover recurring connectivity costs, managed data services for maintenance of the hardware and video equipment maintenance costs.

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g. Cellular Telecommunications Facilities in Wyoming

Cellular services are provided state-wide within each of five Rural Service Areas (RSAs) and one Metropolitan Statistical Area (MSA). Each Area, conceptually similar to a certificated service territory, is served by two providers. In each Area, there is always a non-wireline provider (System A) and a wireline provider legally affiliated with an existing land-line telephone company (System B). Systems A and B are mutually exclusive. Further information about wireless telephone service providers may be found in Appendix C to this report.

A Wyoming company, SpectraCom, Inc., is beginning the vigorous deployment of PCS digital personal wireless communications services in major Wyoming markets. A corporate relative of Range Telephone Cooperative and RT Communications, it is now bringing its state of the art digital cellular service to the Gillette, Casper, Riverton, Lander, Worland, Cheyenne, Hudson and Laramie areas and to the I-80 corridor between Cheyenne and Laramie. Reinforcement of the system is being undertaken and expansion is under consideration. Competition is developing here also, through U S WEST Wireless which has entered the PCS market serving the Cheyenne area.

Cellular service quality in Wyoming is the subject of further conceptual consideration by the Commission under its general rule making authority found at W.S. § 37-15-401(a)(iii) and its specific authority regarding cellular quality of service found in W.S. § 37-15-104(a)(vi), that being only to the extent not preempted by federal law. No proceeding has been established to promulgate such rules.

SECTION 3

Other Information

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a. The Commission's Geographic Information System (GIS), a tool for the future.

Since its inception, the Commission has issued Certificates of Public Convenience and Necessity under Wyoming law which gave public utilities the authority, most often exclusively, to provide service in specific areas of Wyoming. These certificates contain geographic descriptions of the territory for which authority has been granted. In the past, the Commission's facilities engineers created hand-drafted maps to graphically represent certificated territory. Keeping those maps up to date has become a very labor intensive and slow process. The Commission has realized the need for a more accessible and comprehensive method of recording, preserving and using land records which define the boundaries of utility service territories.

Recognizing this need, the Commission sought assistance in the latter part of 1997 to develop an action plan for a Commission system which would provide GIS mapping and documentation of utility certificated territories in Wyoming. Using a competitive bidding process, the project was awarded to Electrical Systems Consultants, Inc., (ESC). The action plan was completed in the Spring of 1998. Thereafter, the Commission undertook the much larger project of implementing the action plan in the Summer of 1998. In a separate competitive bidding process, this phase of the project was also awarded to ESC.

The Commission began validating the data compilations initially provided by ESC in May 1999. Through this validation process, the Commission discovered several inconsistencies in the ESC data which required additional research and remediation prior to acceptance by the Commission. Subsequently, ESC has engaged in several months of intensive efforts to complete the digitization of the Commission's certificated area records; and the Commission, at the time of this report, considers the project substantially complete. Using the data, software, and computer hardware provided pursuant to the contract, the Commission is now able to generate graphical representations of the boundaries of the areas in Wyoming in which electric, natural gas, telecommunications and water utilities are certified to provide service.

There are additional aspects of the Commission's GIS system which will be useful in the future. The Commission is, for example, required by law to report on the status of Wyoming's telecommunications utilities in this Annual Report. The Commission intends to enhance and expand the GIS system and to use it in analyzing the types and quality of utility services that are available throughout Wyoming. The information produced by such as system could include analyses of the cost of providing utility services, information about the location, frequency and duration of utility service interruptions, major utility facility locations, and information related to the status of competitive service provision (recognizing that the details of local telecommunications plant and facilities are regarded as closely held competitive secrets by local exchange companies).

The Commission believes that the new GIS system will improve the quality and accuracy of the information included in these reports, and that GIS is the appropriate technology to accomplish this result. This resource will be useful to the Commission, which is frequently asked to make presentations to legislative committees on issues concerning telecommunications reform as well as natural gas or electric industry questions. These presentations can be greatly enhanced with maps of utility services overlaid with state population records and other useful statistics. The ultimate goal of the Commission is to develop our GIS resource as a comprehensive spatial data information system fully integrated into the work processes of the Commission to facilitate attainment of our strategic goals and objectives.

As an economic development tool and as a way to obtain accurate overviews of the state of development of the telecommunications infrastructure of Wyoming, GIS provides unparalleled ease and efficiency of use. It is also sufficiently secure that proprietary and otherwise sensitive information could be contained in secure GIS overlays. We believe that the system will, as it develops, be able to

supersede portions of this Annual Report in the future.
Although the Commission's facilities engineers regularly inspect utility infrastructure throughout the state, there is no centralized record of major facility locations or supporting data concerning the equipment in use and to be inspected. The use of our GIS system to compile such a record will assist the Commission in maintaining the continuity of quality and thoroughness of inspections as employees are lost to retirement. It will allow for more accurate planning and enhanced inspection results. The Commission has also discussed on a preliminary basis the possibility of integrating the Commission's GIS information with information maintained by the Wyoming Emergency Management Agency for use in responding to natural disasters or man-made events.
These are a few of the immediate applications of GIS technology at the Commission. We will develop others as they are warranted in the future.

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b. Your reactions to this Report.
Tell us what you liked about this Report and what you would like to see added, changed or covered differently in the future. Please share your thoughts and ideas with Steve Oxley, the Commission's Chief Counsel:
by telephone: 307-777-7427 (voice) or 307-777-5700 (fax)
by e-mail: soxley@state.wy.us
in writing: Steve Oxley, Chief Counsel, Wyoming Public Service Commission
2515 Warren Avenue, Suite 300, Cheyenne, Wyoming 82002

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APPENDIX A - Wyoming Incumbent Local Exchange Companies

1.All West Communications
P.O. Box 588
Kamas, UT 84036-0588
(801) 783-4361

County Served: Lincoln
Exchange: Cokeville Access Lines
Revenues
Gross Plant
Net Plant

362
$ 530,944
$2,161,313
$ 972,498

2.Chugwater Telephone Company
P.O. Box 223
Chugwater, WY 82210-0223

(307) 422-3535

Counties Served: Laramie, Platte
Exchange: Chugwater Access Lines
Revenues
Gross Plant
Net Plant

268
$ 385,182
$1,026,986
$ 431,310

3.Dubois Telephone Exchange
P.O. Box 246
Dubois, WY 82513-0246
(307) 455-2341

Counties Served: Fremont, Sweetwater and Carbon
Exchanges: Baggs, Crowheart and Dubois Access Lines
Revenues
Gross Plant
Net Plant

2,139
$ 3,720,233
$12,834,389
$ 7,268,851

4.Golden West Telephone Cooperative
P.O. Box 411
Wall, SD 57790-0411
(605) 279-2161

Counties Served: Niobrara and Weston
Exchange: Edgemont, SD Access Lines
Revenues
Gross Plant
Net Plant

32
$49,842

$76,963
$ 0

5.Project Telephone Company
P.O. Box 600
Scobey, MT 59263-0600
(406) 783-5659

County Served: Park
Exchange: Clark

Access Lines
Revenues
Gross Plant
Net Plant

202
$114,237
$855,405
$539,619

6.Range Telephone Cooperative
P.O. Box 127
Forsyth, MT 59327-0127
(406) 347-2226

Counties Served: Crook, Weston, Campbell, Sheridan and Johnson
Exchanges: Alzada, MT, Decker, MT, Arvada, Clearmont, Southeast Sheridan, and Sundance

Access Lines
Revenues
Gross Plant
Net Plant

1,881
$ 2,287,228
$10,605,106
$ 6,059,823

7.RT Communications
P.O. Box 506
Worland, WY 82401
(307) 347-8251

Counties Served: Fremont, Natrona, Laramie, Weston, Crook, Washakie, Johnson, and Hot Springs
Exchanges: Albin, Burns, Carpenter, Pine Bluffs, Gas Hills, Hulett, Jeffrey City, Kaycee, Midwest, Moorcroft, Newcastle, Shoshoni, Thermopolis, Upton/Osage and Worland Access Lines
Revenues
Gross Plant
Net Plant

15,898
$16,430,874
$78,816,871
$36,834,243

8.Silver Star Communications
P.O. Box 226
Freedom, WY 83120-0226
(307) 883-2411

County Served: Lincoln
Exchanges: Alpine and FreedomAccess Lines
Revenues
Gross Plant
Net Plant

2,441
$ 3,220,583
$10,779,365
$ 4,182,592

8a.Silver Star Communications
at Alta, d/b/a Teton Telecom

County Served: Teton
Exchange: Driggs, ID Access Lines
Revenues
Gross Plant

Net Plant 251
$166,772
$905,730
$645,875
9.CenturyTel of Wyoming
formerly PTI Communications
P. O. Box 160
Pinedale, WY 82941-0160
(307) 367-4321

Counties Served: Sublette, Sweetwater, Carbon, and Albany
Exchanges: Big Piney, Eden-Farson, Medicine Bow and Pinedale Access Lines
Revenues
Gross Plant
Net Plant

4,660
$ 3,113,706
$14,403,472
$ 4,078,139

10.TCT West
P.O. Box 671
Basin, WY 82410
(307) 568-3357

Counties Served: Big Horn, Park and Hot Springs
Exchanges: Lovell, Meeteetse, Greybull, Frannie/Deaver and Basin Access Lines
Revenues
Gross Plant
Net Plant

5,690
$ 3,851,172
$25,026,718
$15,300,009

11.Tri County Telephone Association
P.O. Box 310
Basin, WY 82410-0310
(307) 568-2427

Counties Served: Washakie, Big Horn, Park, and Hot Springs

Exchanges: Burlington, Hamilton Dome, Hyattville and Ten Sleep

Access Lines	1,029
Revenues	$ 1,674,696
Gross Plant	$10,156,957
Net Plant	$ 6,957,705

12.Union Telephone Company
P.O. Box 160
Mountain View, WY 82939-0160
(307) 782-6131

Counties Served: Uinta, Sweetwater, Carbon, Albany, Lincoln, and Sublette
Exchanges: Mountain View, Lyman, Hanna/Elk Mountain, Rock River, LaBarge, Shirley Basin, Saratoga and Encampment

Access Lines	6,291
Revenues	$25,512,421
Gross Plant	$47,168,400
Net Plant	$23,255,479

13.Sprint Communications d/b/a United Telephone Company of the West
P.O. Box 2128
Scottsbluff, NE 69363
(308) 635-8200

Counties Served: Goshen and Platte
Exchanges: Guernsey, LaGrange, Lingle, Torrington and Lyman, NE Access Lines
Revenues
Gross Plant
Net Plant

7,679
$ 5,763,283
$13,231,155
$ 5,789,897

14.US WEST Communications
6101 Yellowstone Road
P.O. Box 428
Cheyenne, WY 82003-0428
(307) 771-6298

Counties Served: All Wyoming Counties (Albany, Big Horn, Campbell, Carbon, Converse, Crook, Fremont, Goshen, Hot Springs, Johnson, Laramie, Lincoln, Natrona, Niobrara, Park, Platte, Sheridan, Sublette, Sweetwater, Teton, Uinta, Washakie and Weston) and Yellowstone National Park.
Exchanges: Afton, Buffalo, Casper, Cheyenne, Cody, Dayton/Ranchester, Douglas, Evanston, Gillette, Glendo, Glenrock, Green River, Jackson, Kemmerer, Lander, Laramie, Lusk, Powell, Rawlins, Riverton, Rock Springs, Sheridan, Story, Wheatland, Wright, Yellowstone Park (Lake, Mammoth, Old Faithful)

Access Lines
Revenues
Gross Plant
Net Plant

253,873
$117,266,394
$512,576,482
$254,883,838

Sources: Telecommunications company reports filed with the Commission during the reporting year.

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APPENDIX B - Wyoming Competative Local Exchange Companies
Please note that mergers and acquisitions which occurred during the reporting year and previous years are described at the end of applicable company entries.

1.AT&T Communications of the Mountain States
1875 Lawrence Street

Denver, CO 80202
Certificate authority: US WEST exchanges only
2.Sprint Communications Company
8140 Ward Parkway
P.O. Box 8417
Kansas City, MO 64114
Certificate authority: US WEST and United Telephone Company of the West exchanges only
3.Excel Telecommunications
8750 North Central Expressway
Suite 1700
Dallas, TX 75231
Certificate authority: US WEST exchanges only
(Acquired by Teleglobe Communications during 1998.)
4.McLeodUSA Telecommunications Services
McLeodUSA Technology Park
6400 C Street SW
P.O. Box 3177
Cedar Rapids, IA 52406-3177
Certificate authority: US WEST exchanges only
5.FirsTel
2900 West 11th Street
Sioux Falls, SD 57104
Certificate authority: US WEST exchanges only
(Acquired by Advanced Communications Group during 1998.)
(Acquired by Ionex Telecommunications during the reporting year.)
6.MCIMETRO Access Transmission Services
MCIMETRO
707 17th Street, Suite 3600
Denver, CO 80202
Certificate authority: US WEST exchanges only
7.WYOCOM
wyoming.com
213 West Main Street, Suite A
Riverton, WY 82501
Certificate authority: US WEST exchanges only
8.Atlas Communications
482 Norristown Road
Blue Bell, PA 19422
Certificate authority: US WEST exchanges only
9.Preferred Carrier Services
500 Grapevine Highway Suite 300
Hurst, TX 76054
Certificate authority: US WEST exchanges only
(Acquired by Phones For All during 1998.)
10.Tel-Save d/b/a The Phone Company
6805 Route 202
New Hope, PA 18938
Certificate authority: US WEST exchanges only
11.LCI International Telecom
8180 Greensboro Drive
McLean, VA 22102
Certificate authority: US WEST exchanges only
(Acquired by Qwest Communications during 1998.)
12.LDM Systems
254 South Main Street
New City, NY 10956

Certificate authority: US WEST exchanges only
(Acquired by RSL COM U.S.A. during 1998.)
13.Dial and Save of Wyoming
4219 Lafayette Center Drive
Chantilly, VA 22021
Certificate authority: US WEST exchanges only
14.Silver Star Communications
104101 Highway 89
Freedom, WY 83120
Certificate authority: Afton exchange of US WEST only
15.WorldCom Technologies
515 East Amite
Jackson, MS 39201
Certificate authority: US WEST exchanges only
16.Sterling International Funding
d/b/a Reconex a/k/a Ameritel
9620 S.W. Barbur Blvd. - Suite 330
Portland, OR 97219
Certificate authority: US WEST exchanges only
17.

Group Long Distance
1451 West Cypress Creek Road - Suite 200
Fort Lauderdale, FL 33309
Certificate authority: US WEST exchanges only
18.

Eclipse Communications
3650 131st Avenue SE - Suite 400
Bellevue, WA 98006
Certificate authority: US WEST exchanges only
19.Level 3 Communications
1450 Infinite Drive
Louisville, CO 80027
Certificate authority: US WEST exchanges only
20.NET-tel
11921 Freedom Drive - Suite 550
Reston, VA 20190
Certificate authority: US WEST exchanges only
21.InTTec
subsidiary of Visionary Communications
301 South Douglas Highway
Gillette, WY 82716
Certificate authority: US WEST exchanges only
22. DSLnet Communications
545 Long Wharf Drive - Fifth Floor
New Haven, CT 06511
Certificate authority: US WEST exchanges only
23.JATO Operating Two Corp
1099 18th Street - Suite 700
Denver, CO 80202
Certificate authority: US WEST exchanges only
24.TRI TEL

405 South Fourth Street
P. O. Box 350
Basin, WY 82410
Certificate authority: US WEST exchanges only
25.New Edge Networks
3000 Columbia House Blvd. - Suite 106
Vancouver, WA 98661
Certificate authority: US WEST exchanges only
26.All West/Wyoming
50 West 100 North
Kamas, UT 84036
Certificate authority: US WEST exchanges only
27.MVX.COM Communications
100 Rowland Way - Suite 145
Novato, CA 94945
Certificate authority: US WEST exchanges only

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APPENDIX C

Wyoming Wholesale Cellular Service Providers and Personal Communication Service (PCS) Providers Licensed by the Federal Communications Commission

1. CommNet Cellular
8350 East Crescent Parkway - Suite 400
Englewood, CO 80111
Authorized Service Areas:
RSA #1 (System B)
RSA #2 (System B)
RSA #3 (System A)

2. Western Wireless
d/b/a Cellular One
11400 S.E. 8th Street - Suite 445
Bellevue, WA 98004
Authorized Service Areas:
Casper MSA (System A)
RSA #2 (System A)
RSA #4 (System A)
RSA #5 (System A)

3. Union Telephone Cellular Company
d/b/a Union Cellular
P.O. Box 160
Mountain View, WY 82939
Authorized Service Area:
RSA #3 (System B)

4. US WEST NewVector Group
d/b/a AirTouch Cellular
3350 161st Avenue SE
Bellevue, WA 98009
Authorized Service Areas:
Casper MSA (System B)
RSA #4 (System B)
RSA #5 (System B)

5. MetaComm Cellular Partners
d/b/a Cellular One
190 Parish Drive
Wayne, NJ 07470
Authorized Service Area:
RSA #1 (System A)

6. SpectraCom (PCS Provider)
d/b/a PYXIS Communications
130 South 9th Street
Worland, WY 82401
Authorized Service Areas:
Basic Trading Area #69
Basic Trading Area #77
Basic Trading Area #375
Counties Served:
Washakie, Hot Springs, Fremont, Natrona, Campbell, Albany, Laramie, Johnson, Converse, Platte and Carbon

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APPENDIX E - Commission Petition for Reconsideration of FCC decision on federal universal service funding
Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of
Federal-State Joint Board on
Universal Service)
)
)CC Docket No. 96-45

PETITION FOR RECONSIDERATION OF THE
NINTH REPORT & ORDER AND
EIGHTEENTH ORDER ON RECONSIDERATION

Comes now the Wyoming Public Service Commission (WPSC) on behalf of the citizens of Wyoming and respectfully asks the Federal Communications Commission (Commission) to reconsider its decision in its Ninth Report and Order and Eighteenth Order on Reconsideration in CC Docket No. 96-45, In the Matter of Federal-State Joint Board on Universal Service.

WYOMING

The WPSC is statutorily charged under the Wyoming Telecommunications Act of 1995

to "ensure essential telecommunications services are universally available to the citizens of this state while encouraging the development of new infrastructure, facilities, products and services." Additionally, the Wyoming Act directed that:

(a) Services provided by a telecommunications company that provides noncompetitive services shall be priced such that the service's revenues from sale of the service recover the total service long-run incremental cost of providing that service. . .

Under this charge, the WPSC entered an Order in July, 1999, which directed U S WEST Communications, Inc. (U S WEST), Wyoming's only non-rural telecommunications company, to price its local exchange service above a price floor which is based on a total service long-run incremental cost pricing model (TSLRIC). The effect of this pricing of local exchange service is that all embedded subsidies have been removed so all economic barriers to entry (except capital investments) have been eliminated from U S WEST's service territory. The removal of barriers to competition and the development of competition for local services is one of the goals of the Wyoming Telecommunications Act, as well as the primary goal of the federal Telecommunications Act of 1996.

The theoretical goals of both the Wyoming and the federal Acts have been met. However, Wyoming is a high cost state, and the prices for local service that customers must pay are far above the national average. In 1998, the national average residential monthly charge for local service in urban areas was $13.77. As of October 1, 1999, U S WEST's weighted average residential rate in Wyoming exceeded $28. Based on the TSLRIC model, using a base rate area and three rural zones, the resulting prices, before taxes, surcharges, or high cost support, for Wyoming's U S WEST customers are: $23.10 per month for the base rate area; $38.60 per month for Zone 1; $48.60 per month for Zone 2; and $69.35 per month in Zone 3.

The currently available federal universal service fund support is then targeted to high cost customers, in the following graduated manner: none of the federal support is provided to base rate area customers; Zone 1 customers currently receive $2.00 per month as a direct bill credit; Zone 2 customers currently receive $6.50 per month as a bill credit; and Zone 3 customers receive a bill credit of $12.25 per month. These amounts are subject to change as the federal high cost support changes. Wyoming targeted high cost support by rural distance zone. This work was completed prior to the issuance of the FCC decision which suggests the targeting of high cost support by wire center rather than rural zones outside the base rate area. Wyoming intends to request a waiver regarding the way the targeting occurs, as allowed by the Commission's order, and hopes to work with the Commission on an appropriate resolution of these targeting differences.

Any remaining support comes from the Wyoming universal service fund. Support is provided to Wyoming customers whose basic local service rate exceeds 130% of the statewide weighted average rate. Currently, given that Wyoming has eliminated implicit subsidies for more than 80% of its ratepayers and has moved to forward looking, cost-based rates, a residential customer's rate must exceed $34.81 before the threshold for support from the Wyoming universal service fund has been reached! Clearly, even with an explicit state universal service fund in place, combined with targeting of all currently available federal support, Wyoming customers pay well above the national average, failing the comparability test that is critical to rural, high cost states, such as Wyoming.

FCC ORDER

The result of the Commission's Ninth Report and Order is that Wyoming's federal high cost support for U S WEST is reduced! Naturally, we are astonished at the results of the model and the FCC decision. These results are contrary to the intent of Congress and the clear reading of the 1996 Act. Under section 254(b)(3), a section of terrific familiarity, rural, insular and high cost areas

should have access to telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas. Congress must have had Wyoming and other rural states, similarly situated, in mind when it drafted this section of the 1996 Act. Equally important is the sufficiency provision found at Section 254(b)(4). This states that the federal and state support mechanisms should be "specific, predictable, and sufficient" such that they "preserve and advance universal service." As further discussed below, the Commission presumes that the states will have sufficient resources to pick up whatever piece of high cost support is needed to keep rates affordable and penetration rates high. We will show that this is not the case in Wyoming.

The results of the Commission's order are directly contrary to the intent of Section 254(b)(3) and Section 254(b)(4) and we respectfully ask that the Commission grant this Petition for Reconsideration. We offer below alternatives, any one of which would remedy the Commission's Ninth Report and Order, such that it would meet the comparability and sufficiency objectives of Congress as stated in the 1996 Act.

AVERAGING VERSUS DEAVERAGING

For Wyoming customers, the most devastating portion of the Commission's Ninth Report and Order is the decision to average costs across the study area, rather than providing support at the wire center level. This is also the portion of the decision that is the most surprising, given the prior orders of the Commission. Starting with the Commission's May 7, 1997, Report and Order, one of the key elements of a forward looking cost model was to be its ability to ". . .deaverage support calculations to the wire center serving area at least, and if feasible, to even smaller areas. . ." This deaveraging concept has always shown through the Commission's discussions of universal service support.

Two years later, the Commission continues to ask for comments on deaveraging, and in the process, provides some of the best supporting reasons to adopt deaveraging at something less than the study area level. In its Seventh Report and Order and Thirteenth Order on Reconsideration in CC Docket No. 96-45, adopted May 27, 1999, the Commission states:

As competition places downward pressure on rates charged to urban, business, and other low-cost subscribers, we believe that support deaveraged to the wire center level or below may ensure that adequate support is provided specifically to the subscribers most in need of support, because the support reflects the costs of specific areas.

The Commission continues to express its concerns along this same line when it asks for comment on the following specific issue:

We seek specific comment, however, on the extent to which competition is likely to place steadily increasing pressure on implicit support flows from low-cost areas and the extent to which this pressure suggests that we should deaverage support in the implementation of our new mechanism.

Even in the Further Notice of Proposed Rulemaking in CC Docket No. 96-45, adopted May 27, 1999, the Commission notes, ". . . the Joint Board recommended that the Commission should estimate the total support amount necessary in those areas considered to have high costs relative to other areas." How does averaging higher and lower cost areas support the concept of supporting those areas "considered to have high costs relative to other areas?" The answer was clear to the Commission all along. The competitive model demands that support be provided at a level deaveraged below the study area. The WPSC took the Commission at its word for the nearly four years that this model has been in process, relying itself on deaveraging of prices to further the competitive cause.

In addition, the method of averaging all wire centers without consideration of high cost areas within the exchange, fails the sufficiency and comparability tests in Wyoming. We have no doubt, that in many of the states with large urban

populations, this method provides adequate funding, but it does not do so in the rural, low-population state of Wyoming. Attached is a schedule that shows the significant difference in funding that Wyoming receives under the averaging method when compared to deaveraging at the wire center level. Under the proposed new support mechanism which includes the averaging method, and without the extra support under the hold harmless provisions, U S WEST in Wyoming receives about $3.3 million annually. This amount would be increased nearly fourfold if the support were to be calculated at the wire center level — an annual increase of more than $9 million. These extra funds would translate into nearly an additional $9 per month for high cost customers that could be used as a bill credit on customers' bills. Even with the $9 per month increase in federal support, Wyoming residential rates would be nearly double the national average residential rate.

Looking further at the distribution of the funds on a deaveraged basis, the Commission can be assured that this would truly be going to high cost customers in Wyoming. According to the Commission staff's own data, there are eight exchanges in Wyoming with fewer than 1,000 lines each, and, in fact, these eight exchanges have a total of only 2,608 lines, comprising just over one percent of the Wyoming non-rural lines. The lines in these eight exchanges have an average monthly cost of about $220 each. If support were provided at the wire center level, these customers would receive nearly 35% of the non-rural federal support in Wyoming. Aren't these the customers that should be getting the high cost support?

Under the hold harmless provisions, more than twenty percent (20%) of U S WEST's residential customers in Wyoming will be paying $34.81. And, if for some reason that we pray never comes to be, the hold harmless provisions were to disappear, Wyoming rates would actually be well above the current level, since this difference would either be paid by customers themselves or through a universal service surcharge that is already approaching five percent. How can rates at this level be deemed to be reasonably comparable to currently charged monthly urban rates in the $13 range? A loss of 25% of the federal funding translates into more than a $3.00 a month increase to Zone 3 customers who already pay nearly $45 (with taxes and surcharges) for dial tone. Where is the comparability? Where is the sufficiency?

Many have argued with the WPSC that we should discard the competitive model to keep our low, implicitly subsidized rates for as long as possible. But, where does the federal Act say that we should be denied the benefits of competition just because we live in a rural state? Nowhere. In fact, the federal Act prohibits a state, even a rural state, from barring competition. Wyoming has opened its doors to competition; we have set rates to eliminate implicit subsidies; we have reduced access and toll charges; we have deaveraged unbundled elements and local prices; we have targeted federal support to high cost customers; and we have established a large intrastate universal service fund. Now, it is the Commission's turn to recognize that Wyoming did the right thing, but we need help. We ask that you implement support at the wire center level rather than the study area level.

RURAL STATE EXCEPTION

Wyoming offers a second alternative of allowing for a rural state exception, where help is shown to be needed, due to the lack of sufficient intrastate resources. This alternative works well alone, as explained below, or could be easily paired with the above requested deaveraging, if concerns persist regarding the overall size of the fund. In other words, additional parameters could be placed around the deaveraging issue, where, for example, a non-rural carrier would only receive support at the wire center level, if its costs exceed a certain level and the state universal service surcharge exceeded a specified level.

Specifically, Wyoming took the Commission at its word when it said, "To the

extent a state's resources are deemed inadequate to maintain affordable and reasonably comparable rates, the federal mechanism will provide the necessary support." We also took to heart the Federal-State Joint Board's recommendation that ". . .federal support should be provided to the extent that the state would be unable to support its high cost areas through its own reasonable efforts." Yet, rather than looking at specific state situations, or even allowing for specific state exceptions, the Commission simply presumes that states will be able to fund any high cost needs not funded at the federal level, when it states:

We recognize that, irrespective of our policies, the development of competition may place pressure on implicit support mechanisms at the state level. For example, states that use above-cost pricing in urban areas to subsidize below-cost service in rural areas may face pressure to deaverage rates as competitors begin to offer cost-based rates to urban customers. Although this development may compromise states' ability to facilitate universal service using implicit support, it should not compromise states' ability to facilitate universal service through explicit support mechanisms.

We remind you again that Wyoming has deaveraged rates to not only meet competition, but to allow for competition since it is questionable if it would ever come to Wyoming without first eliminating the implicit subsidies. But, where we really take exception to the order is the assumption that states will readily be able to convert their implicit subsidies into explicit subsidies, without an affordability issue, and thus, universal service, issue arising. Once again, many, many non-rural customers in Wyoming are paying nearly $45 for dial tone (including taxes and surcharges) and all Wyoming customers could soon be paying between four and five percent to fund the Wyoming universal service fund. We believe this does compromise our ability to facilitate universal service through explicit support mechanisms.

Interestingly, the next sentence of this same paragraph in the Ninth Report & Order seems to leave an opening for the kind of small state exception that we are proposing. This sentence states:

In addition, we do not believe it would be equitable to expect the federal mechanism — and thus ratepayers nationwide — to provide support to replace implicit state support that has been eroded by competition if the state possesses the resources to replace that support through other means at the state level. [Emphasis added.]

We do not have such resources. We are already stretched to our limits. Our survey of affordability taken in the Summer of 1997 indicated that customers would only tolerate a local rate that did not exceed $30. We have recently exceeded that level, so we do not yet know how this will impact the penetration level or rural lifestyles. (Will phone service remain widely available in Wyoming?) Therefore, we ask that the Commission expand on this opening left in its order, and develop what we term a "rural state exception." This exception of allowing for additional federal support would apply where a non-rural carrier's average forward looking cost exceeds a designated threshold and where the state universal service fund exceeds a designated percentage. Wyoming recommends that this exception be implemented when a non-rural carrier's average forward looking cost exceeds $30 per month and the surcharge on intrastate revenues exceeds four percent in order to fund the intrastate portion of the universal service fund needs. To quantify this, if the difference between the average non-rural cost per line of $33.68 per month and a threshold of $30 were funded, the total would be $10,651,259 annually ($3.68 per line x 241,197 lines x 12 months). This amount is not enough to break the national bank, but is of critical importance to Wyoming. This extra $10 million of federal support would require an additional five percent surcharge on all intrastate, jurisdictional revenues (including cellular, paging, pay phones, local, features, and intrastate toll) in Wyoming, whereas it is negligible compared to total interstate revenues.

The WPSC believes that a rural state exception (that, of course, would apply to any state that showed that it lacked sufficient resources to meet its intrastate needs) is a viable addition to the Commission's high cost decision. It is consistent with earlier statements that there should be a federal-state partnership. It allows the state to accept as much responsibility as possible without placing an undue burden on customers. It utilizes the Commission's forward looking cost model to promote least-cost, most efficient networks. Most importantly, it passes the comparability and sufficiency tests.

INPUT CONCERNS

In its review of the non-rural cost model, the WPSC has developed concerns about several of the cost inputs, but has not yet had a full opportunity to explore the impact of each of these items, including the fill factors, the operations and maintenance expense factors, and customer location placement (based on non-public data). However, we have a particular concern about the use of 18,000 feet loops. Loop length is a significant driver of costs, and the 18,000 feet length may be longer than reasonable. We believe that this longer loop length may be driving down the average cost of service, especially in a sparsely populated rural state such as Wyoming.

We also believe that a loop this long is inconsistent with several other provisions of the 1996 Act. For example, Congress designated that one of the principles of universal service is that "Access to advanced telecommunications and information services should be provided in all regions of the Nation." We believe that many of today's advanced and information services will not be provided over loop lengths of 18,000 feet. Specifically, U S WEST's megabit service, which is an ADSL, high speed digital line, is not offered on loop lengths longer than 15,000 feet with 26 gauge wire, or 18,000 feet with 24 gauge wire. In addition, traditional modem transfer rates appear to become affected in loops of 18,000 feet and greater.

Continuing through the list of universal service principles found in the 1996 Act, access to advanced and information services is again reiterated in Section 254(b)(3), where it is stated:

Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas. [Emphasis added.]

Again, the comparability standard not only requires reasonably comparable rates but also requires reasonably comparable services, and these are not without a cost. This comparable cost should be reasonably reflected in the forward looking cost model through a loop length that allows customers access to these services without having to subscribe to a special access or private line. We believe that this loop length warrants a further review, and that consideration should be given to the use of a 12,000 feet loop length, rather than the currently modeled 18,000 feet loop.

CONCLUSION

In summary, the WPSC requests that the Commission grant this Petition for Reconsideration in order to modify its order using one, or more, of the alternative modifications suggested and described above. We appreciate the work that has gone into the Commission's forward-looking cost model and our suggested modifications to the order work within the framework of that model. We believe that our suggested modifications could be implemented without having to further delay the implementation date of the Commission's order. This issue is of critical importance to Wyoming ratepayers and the continued affordability of telephone service in Wyoming. We await your response to this mandated federal-state partnership and repeat our desire to work with you on this most

important issue. We ask that you grant this Petition for Reconsideration and provide Wyoming with additional support soon. We have already waited far too long.
Submitted this 30th day of December, 1999.
Respectfully Submitted,
STEVE ELLENBECKER
Chairman

Please send your comments and suggestions to the PSC Webmaster

This page was last updated on February 14, 2000.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-32)
§ 364.10, Fla. Stat.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-32

Florida Statute § 364.10 Lifeline.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 40
Company/ Alltel
Witness: David C. Blessing (DCB-32)
Date: 12/01/05

*43961 West's F.S.A. § 364.10

WEST'S FLORIDA STATUTES ANNOTATED
TITLE XXVII. RAILROADS AND OTHER REGULATED UTILITIES (CHAPTERS 350-368)
CHAPTER 364. TELECOMMUNICATIONS COMPANIES
PART I. GENERAL PROVISIONS

Current through Chapter 484 and H.J.R. No. 1 and S.J.R. No. 2394 (End) of 2004 Special "A" Session of the Nineteenth Legislature

364.10. Undue advantage to person or locality prohibited; Lifeline service

(1) A telecommunications company may not make or give any undue or unreasonable preference or advantage to any person or locality or subject any particular person or locality to any undue or unreasonable prejudice or disadvantage in any respect whatsoever.

(2) The prohibitions of subsection (1) notwithstanding, a telecommunications company serving as carrier of last resort shall provide a Lifeline Assistance Plan to qualified residential subscribers, as defined in a commission-approved tariff and a preferential rate to eligible facilities as provided for in part II.

(3)(a) Effective September 1, 2003, any local exchange telecommunications company authorized by the commission to reduce its switched network access rate pursuant to s. 364.164 shall have tariffed and shall provide Lifeline service to any otherwise eligible customer or potential customer who meets an income eligibility test at 125 percent or less of the federal poverty income guidelines for Lifeline customers. Such a test for eligibility must augment, rather than replace, the eligibility standards established by federal law and based on participation in certain low-income assistance programs. Each intrastate interexchange telecommunications company shall, effective September 1, 2003, file a tariff providing at a minimum the intrastate interexchange telecommunications carrier's current Lifeline benefits and exemptions to Lifeline customers who meet the income eligibility test set forth in this subsection. The Office of Public Counsel shall certify and maintain claims submitted by a customer for eligibility under the income test authorized by this subsection.

(b) Each local exchange telecommunications company subject to this subsection shall provide to each state and federal agency providing benefits to persons eligible for Lifeline service applications, brochures, pamphlets, or other materials that inform such persons of their eligibility for Lifeline, and each state agency providing such benefits shall furnish the materials to affected persons at the time they apply for benefits.

*43962 (c) Any local exchange telecommunications company customer receiving Lifeline benefits shall not be subject to any residential basic local telecommunications service rate increases authorized by s. 364.164 until the local exchange telecommunications company reaches parity as defined in s. 364.164(5) or until the customer no longer qualifies for the Lifeline benefits established by this section or s. 364.105, or unless otherwise determined by the commission upon petition by a local exchange telecommunications company.

(d) By December 31, 2003, each state agency that provides benefits to persons eligible for Lifeline service shall undertake, in cooperation with the Department of Children and Family Services, the commission, and telecommunications companies providing Lifeline services, the development of procedures to promote Lifeline participation.

(e) The commission shall report to the Governor, the President of the Senate, and the Speaker of the House of Representatives by December 31 each year on the number of customers who are subscribing to Lifeline service

and the effectiveness of any procedures to promote participation.

CREDIT(S)

Amended by Laws 1980, c. 80-36, § 12, eff. July 1, 1980; Laws 1990, c. 90-244, § 17, eff. Oct. 1, 1990; Laws 1995, c. 95-403, § 13, eff. July 1, 1995; Laws 2003, c. 2003-32, § 10, eff. May 23, 2003.

<General Materials (GM) - References, Annotations, or Tables>

HISTORICAL NOTES

HISTORICAL AND STATUTORY NOTES

Derivation:
Comp.Gen.Laws 1927, § 6366.
Rev.Gen.St.1920, § 4402.
Laws 1913, c. 6525, § 10.

REFERENCES

LAW REVIEW AND JOURNAL COMMENTARIES

Discrimination between resident and nonresident users of public utilities. 7 Miami L.Q. 266.

RESEARCH REFERENCES

Encyclopedias

FL Jur. 2d Telecommunications § 26, Generally; Local Exchange Telecommunications Companies.

FL Jur. 2d Telecommunications § 37, Rates, Tolls, and Charges, Generally.

FL Jur. 2d Telecommunications § 45, Prohibition Against Charges Other Than as Specified in Schedule; Discrimination as to Rates, Charges, Benefits of Contract, Rules or Regulations.

ANNOTATIONS

NOTES OF DECISIONS

Construction and application 1

1. Construction and application

***43963** Telephone company had no legal duty, under this section prohibiting it from giving undue advantage to person or locality, to enter into pole rental agreement with plaintiffs for use of company's poles in connection with plaintiffs' cable television antenna services even though company was furnishing similar services to similar customers. Twin Cities Cable Co. v. Southeastern Telephone Co., App. 1 Dist., 200 So.2d 857 (1967). Telecommunications ⚷81

Under § 364.20 railroad and public utilities commission was authorized to promulgate rule prohibiting the furnishing of telephone or telegraph service when such service is intended or is being used in violation of law. Dade County News Dealers Supply Co. v. Florida R. R. & Public Utilities Commission, 48 So.2d 89 (1950). Administrative Law And Procedure ⚷673; Telecommunications ⚷273

This section forbids "any undue or unreasonable preference or advantage to any person, corporation or locality." State v. Peninsular Tel. Co., 73 Fla. 913, 75 So. 201 (1917).

Current through Chapter 484 and H.J.R. No. 1and S.J.R. No. 2394 (End) of 2004 Special "A" Session of the Nineteenth Legislature

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-33)
Transparent Subsidies

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-33

Robert Crandall and Leonard Waverman, *Who Pays for Universal Service?: When Telephone Subsidies Become Transparent,* Brookings Institute, (2000), pp. 91 - 93.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 41
Company/ Alltel
Witness: David C Blessing (DCB-33)
Date: 12/01/05

Table 5-1. *Price Elasticity of Residential Demand for Telephone Service*

Study	*Estimated elasticity with respect to monthly rate*	*Estimated elasticity with respect to initial connection charge*	*Country (type of data)*
Waverman (1974)[a]	−0.12	. . .	Canada (time series)
Alleman (1977)[a]	−0.17	. . .	USA (cross-section of cities)
Perl (1978)[b]	−0.04	−0.02	USA (cross-section of households)
Perl (1983)[b]	−0.03	−0.01	USA (cross-section of households)
Bodnar and others (1988)	−0.009	. . .	Canada (cross-section of households)
Taylor and Kridel (1990)	−0.04	. . .	USA (cross-section of census tracts)
Hausman, Tardiff, and Belinfante (1993)	−0.005	−0.021	USA (pooled time series, cross-section)
Garbacz and Thompson (1997)	−0.026 to −0.001	−0.046 to −0.027	USA (cross-section of states)
Eriksson, Kaserman, and Mayo (1998)	−0.011 to −0.014	−0.011 to −0.015	USA (cross-section of states)

Sources: See note 6 in text.

a. As reported by Lester Taylor, *Telecommunications Demand: A Survey and Critique* (Ballinger, 1980).

b. At a 93 percent penetration rate with a $10 monthly access price.

GDP per capita across countries in the Organization for Economic Cooperation and Development (OECD). In this section, we utilize a larger sample of countries to estimate the relationship between telephone rates and telephone penetration. The International Telecommunication Union compiles a variety of data for more than 200 countries, but reporting lags in the key series limit the usefulness of these data for recent years. As a result, we estimate the following relationship for 102 countries for 1990 and then for a more limited sample of 60 countries for 1995:

$$(5\text{-}1) \qquad LINES = f(P_{inst}, P_{loc\text{-}m}, P_{loc\text{-}c}, Y),$$

where *LINES* is the number of access lines per 100 persons, P_{inst} is the nonrecurring residential installation charge, $P_{loc\text{-}m}$ is the monthly residential charge for a local line, $P_{loc\text{-}c}$ is the price of a three-minute local call during prime calling hours, and Y is GDP per capita. All estimates are weighted by population to correct for heteroskedasticity. The results are shown in table 5-2 separately for high-income countries (per capita GDP of $6,000 or more) and lower-income countries (per capita GDP of less than $6,000).

The more interesting results for our purposes are those involving residential lines per 100 persons. Unfortunately, there are far fewer countries that report the residential share of total lines; hence, the results are less robust for the residential lines variable, particularly in 1995. We do not report results for developed countries in 1995, given that there are only thirteen usable observations. Note, however, that the 1990 results demonstrate the importance of the residential installation charge in explaining the proliferation of residential lines. In developed countries, the elasticity of residential lines with respect to the connection charge at the point of means is −0.15; in the less developed countries, it is −0.43. Moreover, the income elasticity at the point of means is only 0.54 for the developed countries in 1990 but 1.25 for the less developed countries. In every case, the connection charge proves to add more to the explanation of telephone penetration than does the recurring monthly charge. Unfortunately, this connection charge was much higher in less developed countries than in the wealthier countries, contributing to their much lower telephone penetration.[7]

In our 1995 sample, the mean number of residential lines per 100 persons for less developed countries was only 6.9, while for the developed countries it was 31.7. The 1995 results are much less satisfactory. For

Table 5-2. *Determinants of Telephone Penetration across Countries, 1990 and 1995*[a]

Variable	*High-income countries, 1990*	*Low-income countries, 1990*	*High-income countries, 1995*	*Low-income countries, 1995*
Dependent variable: Main lines per 100 persons				
Constant	31.46	−0.850	28.29	3.13
	(11.61)	(−2.24)	(3.15)	(4.12)
P_{mc}	−0.039	−0.0047	0.0027	−0.0018
	(−28.47)	(−3.83)	(0.08)	(−1.05)
P_{lc-m}	−0.688	−0.0051	−0.834	−0.452
	(−4.69)	(−0.07)	(−3.07)	(−3.72)
P_{inc}	−108.1	9.83	74.60	−38.02
	(−8.56)	(2.26)	(2.17)	(−2.83)
Y	1.92	3.91	0.812	4.947
	(19.76)	(27.94)	(1.98)	(9.66)
R^2	1.00	0.941	0.996	0.862
N	29	73	20	40
Dependent variable: Residential lines per 100 persons				
Constant	23.38	−1.47	...	2.01
	(7.00)	(−2.20)		(1.19)
P_{mc}	−0.024	−0.0037	...	−0.002
	(−9.29)	(−2.76)		(−0.53)
P_{lc-m}	−0.496	0.024	...	−0.38
	(−1.93)	(0.16)		(−1.49)
P_{inc}	−1.79	9.21	...	−18.05
	(−0.09)	(2.20)		(−0.81)
Y	0.971	2.97	...	3.78
	(8.81)	(17.89)		(6.67)
R^2	1.00	0.913	...	0.737
N	26	59	...	31

Source: Authors' calculations.

a. *t* statistics in parentheses.

residential lines, there is no systematic effect of any of the price variables, but income retains its significant influence—though at an elasticity at the point of means that is now only 0.9. For total lines per 100 persons, there now appears to be a statistically significant negative effect of the monthly residential charge and the local usage charge, but no such effect from the residential installation charge. These results may simply reflect the fact that residential rates have been reduced substantially by these developing

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P_{mc}	−0.039	−0.0047	0.0027	−0.0018
	(−28.47)	(−5.83)	(0.08)	(−1.05)
P_{lu-c}	−0.688	−0.0051	−0.834	−0.452
	(−4.69)	(−0.07)	(−3.07)	(−3.72)
P_{lac}	−108.1	9.83	74.60	−58.02
	(−8.56)	(2.26)	(2.17)	(−2.83)
Y	1.92	3.91	0.812	4.947
	(19.76)	(27.94)	(1.98)	(9.66)
R^2	1.00	0.941	0.996	0.862
N	29	73	20	40
Dependent variable: Residential lines per 100 persons				
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	(−1.93)	(0.16)		(−1.49)
P_{lac}	−1.79	9.21	...	−18.05
	(−0.09)	(2.20)		(−0.81)
Y	0.971	2.97	...	3.78
	(8.81)	(17.89)		(6.67)
R^2	1.00	0.913	...	0.737
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Source: Authors' calculations.

a. *t* statistics in parentheses.

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Dkt. No _____
D. Blessing Ex. No. ___ (DCB-34)
Staff Analysis

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-34

Senate Staff Analysis and Economic Impact Statement of CS/SB 654 – the Tele-Competition Innovation and Infrastructure Enhancement Act, dated April 8, 2003.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 42
Company/ Alltel
Witness: David C. Blessing (DCB-34)
Date: 12/01/05

SENATE STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

BILL: CS/SB 654

SPONSOR: Communication and Public Utilities Committee and Senator Haridopolos

SUBJECT: Telecommunications

DATE: April 8, 2003 REVISED: _____ _____ _____ _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Caldwell	Caldwell	CU	Fav/CS
2.			ATD	
3.			AP	
4.			RC	
5.				
6.				

I. Summary:

This committee substitute creates the Tele-Competition Innovation and Infrastructure Enhancement Act.

The committee substitute does the following:

- Exempts voice over Internet protocol (VOIP) service from regulation and broadband or information services from local government regulation.
- Deregulates intrastate interexchange telecommunications companies (IXCs) (companies providing long distance service) except in certain circumstances and eliminates the requirement that IXCs providing operator service obtain a certificate or be subject to greater regulation than the incumbent local exchange telecommunications companies (ILECs).
- Extends the ILECs' universal service and carrier-of-last-resort obligations until January 1, 2009.
- Requires ILECs to increase Lifeline participation to 125 percent of federal poverty income level and provides for other related requirements.
- Changes the references to competitive local exchange telecommunications company (CLEC) from alternative local exchange telecommunications company (ALEC).
- Allows ILECs to petition the Florida Public Service Commission (PSC or commission) to reduce its access charges to parity in a revenue neutral manner and provides the criteria the commission must consider when rendering its decision. "Parity" is defined as the interstate switched network access rates in effect on January 1, 2003.

- Caps network access charges at parity levels for three years after parity is reached and requires IXCs to pass through access reductions and eliminate any "instate connection fees."
- If an ILEC with more than one million access lines in service reduces its access charges to parity, then it may have its basic local services (residential and single line business) treated in the same manner as its non-basic services and its retail service quality requirements are no greater than the service requirements than those being imposed on the CLEC unless the PSC determines otherwise, under certain conditions.
- Allows an ILEC to petition for retail regulatory treatment no greater than CLECs when the ILEC has elected to treat its basic local services the same as its non-basic service when certain conditions are met.
- Creates a procedure for staying and resolving reductions of basic service prices in an anti-competitive manner when certain conditions are met.
- Makes cross reference corrections and conforming terminology.

This bill substantially amends the following sections of the Florida Statutes: 364.01, 364.02, 364.025, 264.0361, 364.051, 364.052, 364.058, 364.10, 364.16, 364.161, 364.162, 364.163, 364.337, 364.3376, 364.502, 365.172, 196.012, 199.183, 212.08, 290.007, 350.0605, 364.602, and 489.103.

The bill creates sections 364.059 and 364.164 of the Florida Statutes.

II. Present Situation:

In 1995, the Legislature enacted chapter 95-402, Laws of Florida, that opened up the local monopoly telecommunications market to competition by allowing competing telephone companies, called alternative local exchange companies or ALECs, to operate in Florida. Prior to that time, the ILECs were rate-of-return regulated companies that had a telephone service monopoly within established service areas. Under the 1995 revisions, the rates for basic local service were capped at the rates in effect on July 1, 1995, until January 1, 2000, for all companies except BellSouth and until January 1, 2001, for BellSouth.

Section 364.01, F.S., provides for the powers of the commission and legislative intent. Under subsection (3), the provision of local exchange telecommunications service is found to be in the public interest and will provide customers with freedom of choice, encourage the introduction of new telecommunications service, encourage technological innovation and encourage investment in telecommunications infrastructure.

Section 364.02, F.S. provides for definitions. Under subsection (1), companies certificated by the commission to provide local exchange telecommunications service in Florida on or after July 1, 1995, are alternative local exchange telecommunications companies. A "local exchange telecommunications company" is defined by s. 364.02(6), F.S., as "any company certificated by the commission to provide local exchange telecommunications service in this state before June 30, 1995." Intrastate interexchange telecommunications companies are not defined. The term "service" is to be construed in its broadest and most inclusive sense.

A "telecommunications company" is defined by s. 364.02(12), F.S., as:

> every corporation, partnership, and person and their lessees, trustees, or receivers appointed by any court whatsoever, and every political subdivision in the state, offering two-way telecommunications service to the public for hire within this state by the use of a telecommunications facility. . . .

Companies that provide telecommunications facilities exclusively to certificated telecommunications companies and companies excluded from the definition of telecommunications companies are not included in this definition. Companies specifically excluded from the definition include: commercial mobile radio service providers, facsimile transmission services, private computer data networks not offering services to the public for hire, and cable television companies providing cable service as defined in 47 U.S.C. § 522.

Section 364.025, F.S., provides for universal service and carrier-of-last-resort requirements. Universal service is a concept that basic telephone service should be available to everyone that desires the service at affordable prices. Subsection (1) defines "universal service" as an "evolving level of access to telecommunications services that, taking into account advances in technologies, services, and market demand for essential services, the commission determines should be provided at just, reasonable, and affordable rates to customers, including those in rural, economically disadvantaged, and high-cost areas." The carrier-of-last-resort provision requires the local exchange telecommunications company to "furnish basic local exchange telecommunications service within a reasonable time period to any person requesting such service within the company's service territory." This requirement expires on January 1, 2004.

Section 364.0361, F.S., requires local government authorities to treat each telecommunications company in a nondiscriminatory manner when granting a franchise or establishing conditions for compensation for the use of rights-of-way or other public property by a telecommunications company.

There are currently ten local exchange companies operating in Florida. They are: BellSouth Telecommunications, Inc., Verizon (merger of GTE and Bell Atlantic), Sprint-Florida Inc., ALLTEL Florida, Inc., GT Com (formerly St. Joseph Telephone & Telegraph Company, Florala Telephone Company, Inc., and Gulf Telephone Company), TDS/Quincy Telephone Company, Smart City Telecom (formerly Vista-United Telecommunications), Northeast Florida Telephone Company, Inc., Frontier Communications of the South, Inc., and ITS Telecommunications Systems, Inc. (formerly Indiantown Telephone System, Inc.).

The following is the number of total access lines for the Florida local exchange companies as of December 2000 according to the PSC:

BellSouth	5,532,534	Smart City Telecom	17,753
Verizon	2,336,571	TDS/Quincy	14,351
Sprint	2,166,374	NE Florida	10,285
ALLTEL	94,782	Frontier	4,660
GT Com	52,191	ITS	3,903

According to the PSC, the number of residence and business basic local telecommunications access lines for the local exchange companies with more than one million access lines is as follows:

BellSouth	4,098,599 - residence and 1,434,015 - business
Sprint	1,528,371 - residence and 625,116 - business
Verizon	1,666,058 - residence and 655,352 - business

Basic local telecommunications service is defined by s. 364.02(2), F.S., as:

> voice-grade, flat-rate residential, and flat-rate single-line business local exchange services which provide dial tone, local usage necessary to place unlimited calls within a local exchange area, dual tone multifrequency dialing, and access to the following: emergency services such as "911," all locally available interexchange companies, directory assistance, operator services, relay services, and an alphabetical directory listing. For a local exchange telecommunications company, such term shall include any extended area service routes, and extended calling service in existence or ordered by the commission on or before July 1, 1995.

According to the PSC, the monthly rates for basic local telecommunications service in Florida are as follows:

	Lowest Rate Group	Highest Rate Group
BellSouth	$7.57	$11.04
Verizon	$9.72	$12.06
Sprint	$7.63	$11.48
ALLTEL	$9.53	$11.21
Frontier	$10.85	$10.95

GT Com	$6.39	$9.28
ITS	$9.03	$9.03
Northeast	$9.00	$9.00
Quincy	$12.95	$12.95
Smart City Telecom	$7.35	$11.47

Basic local telecommunication service is subject to price regulation to the extent provided in s. 364.051, F.S. Section 364.051(1), F.S., allows local exchange companies to choose price regulation instead of rate base, rate of return regulation. Subsection (1)(c) provides that each company subject to this section is exempt from rate base, rate of return regulation and the requirements of several sections dealing with rates and revenues. The rates for basic local telecommunications service are capped for local exchange companies that choose price regulation under this section. The rates were capped at the rates in effect on July 1, 1995, and could not be increased before January 1, 1999, except for BellSouth. The rates for BellSouth could not be increased before January 1, 2001. Sprint, Verizon, and BellSouth have subsequently raised their rates under this section.

Subsection (3) of s. 364.051, F.S., allows the ILEC to adjust its basic service prices once in any 12-month period in an amount not to exceed the change in inflation less one percent on 30-days' notice. Adjustments for nonbasic service are not to exceed 20 percent within a 12-month period when there is a provider of local telecommunications service in an exchange area. Otherwise, adjustements are limited to six percent in a 12-month period where there is no other provider.

Section 364.052, F.S., provides for the regulatory methods for small local exchange telecommunications companies. This section provides conditions for small ILECs to remain rate base regulated unless they elect to become subject to price caps or when an ALEC provides basic local exchange services in the small ILEC's territory.

Section 364.058, F.S., provides that the commission may, on its own motion or upon petition, conduct limited or expedited proceedings to consider and act upon any matter within its jurisdiction. The commission is given the discretion to determine the issues to be considered.

Section 364.10, F.S., prohibits companies from giving undue advantage to persons or localities. It further provides for the exception of Lifeline assistance. Both the federal and state governments have encouraged telephone subscribership for every household. Section 364.10(2), F.S., requires telecommunications companies serving as the carrier of last resort to provide a Lifeline Assistance Plan to qualified residential subscribers. The Lifeline Assistance Plan provides bill credits for qualifying low-income consumers. Consumers who receive assistance through the Temporary Aid to Needy Families program, including the Temporary Cash Assistance and Supplemental Security Income programs, the Food Stamp program, the Federal Public Housing Assistance program, the Low-Income Home Energy Assistance Program, or the Medicaid program are eligible for the plan.

According to the commission, as of December 2002, there were 819,112 people eligible for Lifeline Assistance Plan in Florida. The commission indicates that as of that date, the total number of Lifeline subscribers was 142,521 with a participation rate of 17.3%. For 2002, BellSouth has approximately 104,503 Lifeline customers, Sprint has 10,706 and Verizon has approximately 22,850. Lifeline subscribers may receive a credit of up to $13.00 on local monthly telephone bills as of July 1, 2001. Of that amount, the local exchange telecommunications companies contribute $3.50.

According to the commission, BellSouth executed a settlement agreement with the Office of Public Counsel in a docket before the commission concerning quality of service issues. The agreement dealt with promoting the Lifeline Assistance Plan. The company agreed to file a tariff to establish an income eligibility test of 125% of the Federal poverty guidelines for Lifeline customers. The tariff will augment, not replace, the eligibility guidelines noted above.

Section 364.16, F.S., provides for local interconnection between the ILEC and ALECs and prescribes certain conditions upon ALEC operations.

Section 364.161, F.S., provides conditions when ALECs must unbundle their service offerings and s. 364.162, F.S., provides conditions when ALECs negotiate mutually acceptable prices, terms, and conditions and for the sale of services and facilities.

Section 364.163, F.S., provides for network access services. Under this section "network access service" means "any service provided by a local exchange telecommunications company to a telecommunications company certificated under chapter 364 or licensed by the Federal Communications Commission." It does not include local interconnection arrangements, provided in s. 364.16, F.S., or the resale arrangements provided in s. 364.161, F.S. Each local exchange telecommunications company subject to s. 364.051, F.S., (price regulation) is required to maintain tariffs with the commission that contain the terms, conditions, and rates for each of its network access services.

Switched network access rates refer to the charges for network access that are paid by IXCs to the ILECs for connection to their network and facilities. The charges are for originating a call and terminating a call for both intrastate and interstate calls. The FCC has jurisdiction over interstate telecommunication services and the PSC has jurisdiction over intrastate telecommunication services. In Florida, the intrastate charge is a per minute charge and the interstate charge established by the FCC is both a per minute charge and a monthly per line charge.

Subsection (1) of s. 364.163, F.S., provides that the rates for switched network access services for each local exchange company shall be capped at the rates in effect on July 1, 1999, and shall remain capped until January 1, 2001. Upon the date of filing its election under this section (for price regulation under s. 364.051, F.S.), the access rates are capped at the rates in effect on that date and remain capped for five years. According to the PSC, all local exchange companies except Frontier Communications of the South, Inc., have elected price regulation.

Under subsection (2), after termination of the caps imposed by subsection (1) and after the local exchange company's intrastate switched access rates reach parity with its interstate switched

access rates, a company may annually adjust any network access service rate by the cumulative change in inflation, but no more than three percent annually. The company must give 30 days' notice of the adjustment.

Subsection (3) allows ILECs to petition the commission for a network access service rate change to recover the cost of governmentally mandated projects or programs or an increase in federal or state income tax incurred after that date. Criteria are provided regarding the costs and expenses of the required government program or project.

Section 364.163(4), F.S., provides that a company may choose to implement all or a portion of a rate increase allowed for network access service under subsections (1), (2), or (3). It also provides that, notwithstanding those subsections, a company may decrease its network access services rates at any time and the new rates will become effective upon seven days' notice.

Subsection (5) of this section provides that company-proposed changes made in the terms and conditions for existing network access rates pursuant to subsections (1) - (4) are presumed valid and become effective upon 15 days' notice. Company-proposed rate decreases become effective upon seven days' notice. Rate increases made by a local exchange telecommunications company are presumed valid and become effective on the date the tariff is filed, but in no event earlier than 30 days after filing the tariff. The PSC is given continuing regulatory oversight of local exchange telecommunications company-provided network access services for purposes of determining the correctness of any price increase resulting from the application of the inflation index and making any necessary adjustments, establishing reasonable service quality criteria, and assuring resolution of service complaints.

No later than 30 days after the tariff is filed, the PSC may determine if the price increase is correct and order the local exchange company to hold all the revenues collected under the increase to refund to its customers. The commission must make a determination, within 60 days of that order, whether to order a full or partial refund or release the revenues.

Chapter 98-277, Laws of Florida, amended subsection (6) of s. 364.163, F.S., to its present form and required any local exchange telecommunications company with more than 100,000, but fewer than 3 million basic local telecommunications service access lines in service on July 1, 1995, to reduce its intrastate switched access rates by 5 percent on July 1, 1998, and by 10 percent on October 1, 1998. This reduction affected Verizon (then GTE-Florida) and Sprint-Florida. Any interexchange telecommunications company whose intrastate switched access rates were reduced as a result of these rate decreases was required to reduce its intrastate long distance rates by the "amount necessary to return the benefits of such reduction to its customers ...." The IXC could not reduce its per minute intraLATA toll rates by a percentage greater than the per minute intrastate switched access rate reduction. The IXC could determine the specific intrastate rates to be decreased, provided that residential and business customers benefited from the reductions.

Prior to the changes in 1998, subsection (6) of s. 364.163, F.S., provided that any local exchange telecommunications company whose current intrastate switched access rates were higher than its interstate switched access rates in effect on December 31, 1994, shall reduce its intrastate switched access rates by 5 percent each year beginning October 1, 1996. A local exchange

telecommunications company was relieved of this requirement if it reduced its rates by a greater percentage by the relevant dates or earlier. The reductions were made pursuant to commission Order No. PSC-94-0172-FOF-TL. This order provided, among other things, that BellSouth reduce its access rates.

Section 364.163 (7), F.S., currently provides that reductions for intrastate-switched access rates and customer long distance rates shall become effective on October 1 of each relevant year. Any rate decreases proposed in tariff revisions filed with the commission by the telecommunications companies is presumed valid and becomes effective October 1 of each relevant year.

Subsection (8) provides that no later than 30 days after the tariff is filed, the commission may determine if the rate decrease is correct and order the telecommunications company to hold all intrastate switched access or customer long distance rate revenues collected after the decrease to refund to its customers. The PSC must make a determination, within 60 days of the order, whether to order a full or partial refund or release the revenues.

Subsection (9) of s. 364.163, F.S., gives the commission continuing regulatory oversight of intrastate switched access and customer long distance rates for the purpose of "determining the correctness of any rate decrease by a telecommunications company resulting from the application of this section and making any necessary adjustments to those rates, establishing reasonable service quality criteria, and assuring resolution of service complaints."

The following is a comparison of switched access charges for intrastate and interstate rates as of July 2, 2002. It includes one minute of originating and one minute of terminating switched access and assumes common transport.

	Intrastate Rate	Interstate Rate
BellSouth	$0.0460	$0.0098
Verizon	$0.0982	$0.0157
Sprint	$0.1027	$0.0140
ALLTEL	$0.1132	$0.0224
GT Com		
(Florala)	$0.1522	$0.0327
(Gulf)	$0.1214	$0.0368
(St. Joseph)	$0.1306	$0.0327
Smart City Telecom	$0.1426	$0.0210
TDS/Quincy	$0.1282	$0.0299
NE Florida	$0.1126	$0.0323

	Intrastate Rate	Interstate Rate
Frontier	$0.1040	$0.0203
ITS	$0.1128	$0.0364

According to the commission, intrastate network access service rates were set well above the incremental cost of providing the service in order to keep rates for basic local telecommunications service as low as possible and to encourage subscribership. The FCC has addressed the issue of access charges by reducing the per minute charge and establishing line item flat charges on the telephone bill. According to an FCC consumer facts web publication, subscriber line charge caps are now set at $6.50.

Section 364.337, F.S., provides for oversight of alternative local exchange telecommunications companies.

Section 364.3376, F.S., provides for the regulation of operator service providers and requires a certificate of convenience and necessity as an operator services provider or an interexchange telecommunications company in order to provide such services.

Section 364.502, F.S., establishes criteria ILECs and ALECs must meet when video programming is offered. Section 365.172, F.S., relates to the Wireless Emergency Communications Act.

Subsection 196.012(6), F.S., establishes certain exemptions for tax purposes, paragraph 119.183(1)(b), F.S., provides for certain exemptions from annual and non-recurring taxes, and subsection 212.08(6), F.S., provides for sales, rental, use, consumption, distribution and storage taxes and certain exemptions and each provision references telecommunications facility as defined in 364.02(13), F.S.

Subsection 290.007(8), F.S., provides for state incentives that are available in enterprise zones, subsection 350.0605(3), F.S., provides certain prohibitions and conditions for former commissioners and employees representing clients before the commission, subsection 364.602(4), F.S., provides for the definition of originating party with respect to the Telecommunications Consumer Protection Act, and subsection 489.103(5), F.S., relating to construction contracting and providing exemptions and each provision refers to the definition of telecommunications companies in 364.02(13), F.S.

III. Effect of Proposed Changes:

Section 1 creates s. 364.012, F.S., to name the act the "Tele-Competition Innovation and Infrastructure Enhancement Act"

Section 2 of this bill amends the legislative intent provisions in s. 364.01(3), F.S., to find that unnecessary regulation, regardless of the provider, of the provision of voice over Internet protocol (VOIP) is not in the public interest. There is no definition of VOIP contained in s. 364.02, F.S.

VOIP is an emerging service that uses digital technology to provide voice communications service rather than traditional analog technology. There is currently regulatory uncertainty regarding VOIP since the FCC has not determined whether VOIP service is a "telecommunications service" or an "information service" under federal law. The federal regulatory framework is substantially different for these classifications.

The commission states that the concept of a regulatory distinction based on technology rather than services is new. Historically, both state and federal law and regulatory regimes have focused on the nature of services, such as "telecommunications services" versus "information services," rather than the underlying technological provision of the service. The commission continues that such an approach permits the evolution of technology without retooling regulatory frameworks at every evolutionary stage. Today's merging of telecommunications technologies and computing technologies adds further ambiguity when determining an appropriate method by which to distinguish those things to which regulation should apply. By example, the commission states that currently, some local exchange companies in Florida employ VOIP technology in their existing networks. The commission opines that it is unclear whether this provision has any impact on existing regulation of the local exchange company services based on the fact that some of those services are provided, in part, through VOIP technology.

Section 3 amends s. 364.02, F.S., regarding definitions. The term "alternative" local exchange telecommunications company is changed to "competitive" local exchange telecommunications company. Since passage of the Telecommunications Act of 1995, the FCC and the industry more commonly use the term competitive local exchange telecommunications company rather than alternative local exchange company. This change conforms Florida's laws with industry and federal use.

Subsection (7) is added to define the term "intrastate interexchange telecommunications company" to mean any entity that provides intrastate interexchange telecommunications service. Subsection (11) is renumbered to (12) and the definition of the term "service" is modified to exclude VOIP except as it relates to the rights and obligations on any entity providing VOIP to pay access charges or intercarrier compensation to the extent that those charges are implemented by the FCC or the commission at some future date. This issue is currently pending before the Federal Communications Commission.

The definition of "telecommunications company" is renumbered subsection (13) and amended to exempt intrastate interexchange telecommunications companies from the definition and, therefore, from regulation. However, the exemption would not apply to: chapters 202, 203, and 212, F.S., pertaining to taxation; s. 364.025, F.S., charges relating to universal service; and s. 364.336, F.S., relating to regulatory assessment fees. The exclusion is further limited by the continuing application of ss. 364.04 (tariffs), 364.10(3)(a) and (d) (Lifeline), 364.015 (injunctive relief), 364.285 (penalties), 364.163 (network access charges), 364.501 (underground excavation damage protection), 364.603 (slamming) and 364.604 (billing practice - primarily cramming), F.S. Further, the IXCs are obligated to pay network access charges or other applicable intercarrier compensation to local exchange telecommunications companies and reduce their long distance toll rates in accordance with s. 364.163(2) (pass through requirement associated with access reductions), F.S. Interexchange telecommunications companies are required to

provide the commission with current information the commission deems necessary to contact and communicate with each company. This approach appears to eliminate the need for certification under s. 364.337, F.S., although it is still required under that section.

The commission states that under this committee substitute, IXCs will no longer be subject to s. 364.19, F.S., relating to regulation by the commission of telecommunications service contracts. This statute is the primary basis for the commission's rules relating to consumer billing issues other than slamming and cramming. Such billing complaints still comprise a significant portion of all IXC related complaints.

Section 4 of the bill extends the applicable deadlines that appear in s. 364.025, F.S., for Universal Service and carrier of last resort (COLR) to January 1, 2009. In effect, the incumbent local exchange telecommunications companies remain the universal service providers and COLR until that time. Prior to that date, any party may petition the commission to change the existing interim universal service mechanism and the Legislature is to establish a permanent universal service mechanism. After that date, a competitive local exchange telecommunications company may petition the PSC to become the universal service provider and COLR in its designated service territory. Language providing a competitive carrier a mechanism to carry out these duties and obligations is deleted. Throughout the section, the word alternative is changed to competitive as it describes those local exchange telecommunications companies.

The commission is required to make a determination as to its authority to address a universal service support mechanism for small local exchange telecommunications companies different from the interim mechanism. The commission is required to report its finding to the Legislature and, if deemed necessary, recommend legislation.

Section 5 amends s. 364.0361, F.S., to prohibit any local government from regulating terms and conditions, which include operating systems, qualifications, services, service quality and territory, and prices, applicable to the provision of any broadband or information service. Telecommunications providers are still subject to the provisions of ss. 166.046 (minimum standards for cable television franchises), and 337.401 (use of right-of-way for utilities subject to regulation), F.S.

Section 6 amends s. 364.051, F.S., to address the transition of regulatory oversight for incumbent local exchange telecommunications companies to that equivalent for competitive local exchange telecommunications companies. In subsection 364.051(3), F.S., the current language provides that ILECs may increase the prices for basic services once in a 12 month period not to exceed the change in inflation less 1 percent. The word "prices" has been changed to "revenues" which gives the ILECs more flexibility for adjustments within the category of basic services. According to the PSC, most ILECs have rate groups for basic local exchange service. Historically, rates have varied across rate groups according to the number of customers in the local calling area. (See chart on page 4.) Those local calling areas with the highest number of customers pay more and those in the smaller local calling areas pay less. For example, the commission states that in one ILEC's territory, the largest rate group pays $11.04 per month and the smallest rate group pays $7.57 per month. The ILECs have historically argued that this price relationship is inversely related to the actual cost of providing service. The change from "price" to "revenue" will permit the ILECs to raise rates in the lowest priced area by more than the

inflation rate less 1 percent and higher rate group might be increased less, but overall across the basic category, revenues would not increase beyond the inflation rate less 1 percent.

The bill adds subsection (6) which provides that when ILECs with greater than one million access lines have achieved parity as defined in s. 364.164(5), F.S., the ILEC's basic local telecommunications services may, at the company's election, thereafter be subject to the same regulatory treatment as its non-basic services. The company's retail quality of service requirements will thereafter be no greater than those applicable to competitive local exchange telecommunications companies. However, the PSC may, within 120 days of election by the ILEC, find that such relaxation of service quality standards is not warranted in some or all markets served by the ILEC. The commission is authorized to allow some relaxation of quality standards in some or all markets. The PSC may impose no service quality requirements for competitive local exchange telecommunications companies greater than those in effect as of January 1, 2003.

According to the commission, ss. 364.01(4)(c), 364.337(2) and (5), F.S., provide it with specific statutory authority for service quality standards for CLECs, however, it has not adopted any rules nor a defined regulatory program on service qualify for CLECs beyond the requirement to file and follow what is contained in its price list. Service quality standards include the timeliness of providing service when requested, the frequency and duration of service outages, the timely restoration of service following an outage, and the likelihood of successfully completing a call.

The commission states that they have not imposed any service standards on CLECs prior to January 1, 2003, because they have taken the approach of minimizing any barriers to entry for the competing companies and because many CLECs have no facilities of their own and rely on the underlying service quality of larger ILECs. The commission explains that most CLECs are small start-up companies for which additional requirements may have imposed unnecessary costs. The commission states that it has worked to complete performance metrics and standards for the ILECs wholesale operations before considering imposing service standards on CLECs. The commission continues that the CLECs do not have control over the installation and repair of resale and leased network facilities, for the most part. The ILEC usually performs both the installation and repair under the interconnection agreement with the CLEC. The commission states that they have effectively set standards for the performance of the CLECs to some degree by requiring the ILECs to provide the service in a timely manner to the CLECs. It adds that the ILEC's wholesale performance is required to be at parity with its retail standards. The commission concludes that if they have service requirements on the retail portion, the performance on the wholesale is driven accordingly.

The bill adds subsection (7) that provides when an ILEC has met the condition of parity and has elected to have its basic services treated as non-basic, it may, at that time or thereafter, petition the commission for regulatory treatment of its retail services at a level no greater than that currently imposed on CLECs. The ILEC is required to show that granting the petition is in the public interest and it must further reduce its switched network access charges to a level equal to that of its intercarrier compensation rates. The commission must act on the petition within nine months and in its consideration of the petition must determine the extent to which the level of competition faced by the ILEC permits, and will continue to permit, the regulatory treatment of ILEC retail service regulated on the same basis as those of CLECs. The commission is

prohibited from increasing the level of regulation on CLEC retail services beyond that which is in effect on the date of the ILEC petition. These provisions also apply to small ILECs (less than one million access lines) that have reduced their intrastate switched network access rates to a level equal to the company's interstate switched network access rate in effect on January 1, 2003.

Section 7 amends s. 364.052, F.S., to make conforming changes to use the term competitive local exchange telecommunications company rather than alternative local exchange telecommunications company.

Section 8 amends s. 364.058, F.S., to add subsection (3) which creates an expedited process before the commission to facilitate quick resolution for dealing with intercarrier disputes by minimizing the time necessary to reach decisions. The commission is to render its decision within 120 days. The commission may limit use of the process based on the number of parties and the complexity of the issues. The commission is required to adopt rules to implement this process.

Section 9 creates a new s. 364.059, F.S., relating to procedures for seeking a stay and providing for benchmarks and criteria. The commission is designated as arbiter of allegations relating to anti-competitive practices by an ILEC against another ILEC or CLEC. The commission may grant a stay of the effective date of a price reduction for a basic local telecommunications service. The commission is authorized to address allegations pursuant to the sections relating to cross-subsidization, below cost, and rate caps; free or reduced rates; rebates or special considerations; undue advantage to individual or locality; or cross-subsidization. The petitioner must make the same showing as required by law for a temporary injunction and the ILEC is given seven days to respond. The commission may not grant a stay unless it has voted on the petition after an opportunity for oral argument. If granted, the stay can not exceed 45 days and the commission must make its decision on the merits within 45 days from when the petition is filed unless relevant cost information and supporting documentation cannot be provided in that time period. The commission may grant an extension, not to exceed 15 days, to permit parties to provide relevant cost and supporting documentation. The commission has access to the ILECs' relevant cost studies and supporting documentation pursuant to s. 364.183, F.S.

In carrying out the above described procedures, the commission is required to establish objective benchmarks, such as a price or cost floor, by which it can determine whether a requested stay is warranted. The benchmarks are to be based on generally accepted economic costing and pricing principles and judicial or regulatory costing and pricing precedent. The commission is to establish the criteria for determining whether the basic local telecommunications service price reduction is anti-competitive. The commission must initiate rulemaking to establish the benchmarks no sooner than January 1, 2005, and issue a final order no later than 120 days after commencement. It should be noted that some contested rulemakings can take longer than 120 days to complete.

The commission states that this section is designed to provide more timely relief to CLEC market participants, in cases where anti-competitive behavior is alleged, than is currently available through other legal avenues. The commission notes that since the new language refers to allegations against a "local exchange telecommunications company," the relief appears to be

available only to CLECs, but not to ILECs should they believe anti-competitive activity is occurring against them.

If, however, the FCC or commission determines that neither access charges or intercarrier compensation apply to VOIP, the commission must immediately commence the establishment of the benchmarks and criteria required under this section and the ILEC may make and implement its plan for rebalancing its rates and access charges as described in s. 364.051(6), F.S.

Section 10 amends s. 364.10, F.S. to add subsection (3)(a) which requires that any LEC authorized to reduce its switched network access rate, effective September 1, 2003, to have tariffed and provide Lifeline service to any currently eligible customer and expands the eligibility criteria to include those persons meeting an income test of 125% of the federal poverty guideline. All IXCs must file a tariff by September 1, 2003, providing, at a minimum, any Lifeline benefits currently provided and those benefits also must be provided to those newly eligible under the new income test. The Office of Public Counsel will be responsible for certifying and maintaining claims submitted by a customer for eligibility.

New paragraph (3)(b) provides that each affected ILEC must supply each state and federal agency that provides benefits to persons eligible for Lifeline services with applications, brochures, pamphlets, or other materials to inform such persons of their eligibility. Each state agency providing benefits must furnish the materials to affected persons at the time of application for benefits.

Paragraph (3)(c) exempts Lifeline subscribers from basic local service rate increases associated with the reduction of access charges until the access charges of the ILEC providing service reach parity, or until the subscriber is no longer eligible for Lifeline benefits.

Paragraph (3)(d) provides that each agency providing benefits to persons eligible for Lifeline service must, by December 31, 2003, undertake with the Department of Children and Families, the PSC, and telecommunications companies, to develop processes for promoting Lifeline participation.

Paragraph (3)(e) requires the commission to report by December 31 of each year to the Governor, the Speaker of the House, and the President of the Senate, on the number of customers to subscribing to Lifeline service and the effectiveness of any promotional programs.

Sections 11, 12, 13, 18, and 19 amend ss. 364.16, 364.161, 364.162, 364.502, and 365.172 F.S., respectively, to make conforming changes to use the term competitive local exchange telecommunications company rather than alternative local exchange telecommunications company.

Section 14 amends s. 364.163, F.S., by deleting subsections (1), (3), (4), and (5) which relate to current caps on intrastate switched access rates, already executed reductions, and long distance flow through reductions. Subsections (7) and (8) are also deleted. Amended subsection (2) becomes (1) and provides that after an ILEC's access rates are reduced to parity, they become capped for a period of three years thereafter.

Former subsection (6) becomes (2) and is amended to provide long distance rate reduction flow-throughs tied to switched network access charge reductions pursuant to s. 364.164, F.S. It further provides that these reductions must benefit both business and residential consumers. It provides for the elimination of any in-state connection, or similarly named fee, to be eliminated by July 1, 2006, provided that the reductions can be done in a revenue neutral manner. Tariff changes made pursuant to this section are effective on one-day's notice.

Subsection (3), formerly subsection (9), maintains the commission's regulatory authority over switched network access and customer long distance rates for the purpose of determining the correctness of any rate decrease resulting from the applications of the access reduction provision.

Section 15 creates s. 364.164, F.S., to provide for the switched network access rate reductions. After July 1, 2003, a LEC may petition the commission to reduce its intrastate access charges in a revenue neutral manner. The final order on the petition must be issued within 90 days. In reaching its decision, the commission must consider whether granting the petition will (1) remove current support for basic local telecommunications services that is preventing the development of more competitive options for the benefit of residential customers, (2) enhance market entry, (3) require access rates to reach parity in two to four years, and (4) be revenue neutral.

If the commission grants the petition, the LEC is authorized to create a revenue category that consists of basic local exchange service and switched network access service, in which any reduction to switched access rates shall be revenue neutral within the category. On 45 days notice, thereafter the LEC may, once in a 12 month period and in a revenue neutral manner, adjust the various prices and rates within this revenue category to the amount previously established by the commission. The revenue effect on the category is then calculated by multiplying the new switched network access rate by the number of switched network access minutes of use for the most recent 12 months. The number of switched network access minutes of use will most likely vary each year. Any shortfall in the revenue category is made up by increasing the revenues from basic local telecommunications service. In no event shall any reductions in switched network access charges be entirely offset by increases in the company's monthly recurring rates for basic local telecommunications service. Presumably nonrecurring charges associated with basic local exchange service would comprise the difference. This is accomplished by dividing the revenue shortfall by the number of most recent units of basic local telecommunications service, which most likely will vary each year.

Because the switched network access minutes of use, as well as the basic local service units, will vary year to year, it is not possible to predict with any certainty the size of any annual rate adjustments or the cumulative resulting rate adjustment. All changes within the category are to be implemented simultaneously and the commission must issue a final order, which will be final for all within 45 days after the rate adjustment filing. While the commission will make the ultimate determination, the large ILECs expect the following reductions in intrastate switched network access rates and potential increase in basic local service increase:

Company	Reduction in Switched Network Access Rates*	Increase in Basic Local Service*	Basic Local Service Rate Increase
BellSouth	$135,000,000	$.045/min to $.01/min.	$3.00 to $3.50 over 3 years
Sprint-Florida	$147,000,000	$.10/min to $.02-.01/min.	$6.50 to $7.25 over 4 years
Verizon	$80,000,000	$.09/min to $.02-.01/min.	$4.50 to $5.00 over 4 years

* These figures are estimates and are subject to commission verification and approval.

Subsection (3) provides that the filing will be based on the company's most recent 12 months' pricing units. The commission has the authority only to verify the accuracy of the pricing units for the purpose of ensuring the revenue neutrality of the filing. Discovery or information requests must be limited to verification of pricing units to ensure that rate adjustments are revenue neutral within the revenue category.

Subsection (4) exempts pay telephone providers from increases under this section, which exemption appears to be permanent.

Subsection (5) defines parity for ILECs with greater than one million access lines as equal to interstate access charge rates in effect as of January 1, 2003. For ILECs with one million or less access lines parity is defined as equal to 8 cents per minute. Access reductions below parity in a revenue neutral manner are allowed.

Subsection (6) defines the intrastate switched network access rate as a composite of originating and terminating access rates for carrier common line, local channel/entrance facility, switched common transport, access tandem switching, interconnection charge, signaling, information surcharge, and local switching.

Subsection (7) defines revenue neutrality within the service category and exempts pay telephone units and Lifeline units from the calculation of revenue neutrality.

Subsection (8) provides that if the FCC or commission determines that VOIP services, or its functional equivalent, are not subject to the payment of switched network access rates, the timetable for reducing switched network access rates in a revenue neutral manner will be accelerated to the shortest time frame. It appears that if the FCC or the commission make this determination prior to the ILEC's petition, the rate adjustments could be come effective whether or not the commission granted the petition. However, according to the commission, it does not have any such docket before it and, while the FCC has petitions pending before it that would address these issues, it has not scheduled these for resolution. If, at a later date and after the commission has granted petitions, a decision on VOIP were made, then the ILEC may accelerate the reduction of its switched network access rates in a revenue neutral manner to the level of its intercarrier compensation rates within 2 years.

Section 16 amends s. 364.337, F.S., to substitute the word "competitive" for the word "alternative" and to include s. 364.33, F.S., relating to certificate required for construction or

operation of a telecommunications facility, in the list of statutes under which competitive local telecommunications companies will continue to be governed. Subsection (3) appears to continue to require IXC certification and may be inconsistent with 364.02(1)(g).

Section 17 amends subsection (1)(a) of s. 364.3376, F.S., relating to operator services to remove "interexchange telecommunications company" from the list of entities that must seek certification to provide operator services. Subsection (1)(b) is amended to include interexchange carriers as those exempt from certification requirements to provide operator services. These changes reflect that interexchange telecommunications companies would be exempt from the certification requirement if the bill is passed.

Sections 20, 21, and 22 amend ss. 196.102, 119.183, and 212.08, F.S., respectively, to make conforming changes regarding references to the term telecommunications facilities by changing subsection (13) to (14).

Sections 23, 24, 25, and 26 amend ss. 290.007, 350.0605, 364.602, and 489.103, F.S., respectively, to make conforming changes regarding references to the term telecommunications company by changing subsection (12) to (13).

Section 27 provides that this act shall take effect upon becoming a law.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Economic Impact and Fiscal Note:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

BellSouth has estimated that the total reduction in revenue to reduce the intrastate switched network access rates to parity is approximately $135 million. BellSouth estimated that their adjustment would be in three increments of $1.00 to $1.17 per year for a total of $3.00 to $3.50.

Sprint estimates that the total reduction in revenue to reduce the intrastate switched network access rates to parity is approximately $147 million. Sprint estimated that their adjustments would be in four increments of $1.63 to $1.81 per year for a total of $6.50 to $7.25.

Verizon estimates that the total reduction in revenue to reduce the intrastate switched network access rates to parity is approximately $80 million. Verizon estimated that their adjustments would be in four increments of $1.13 to $1.25 per year for a total of $4.50 to $5.00.

It should be noted that these figures are only estimates and will be subject to commission verification and approval.

These adjustments would be added to the customers' basic rates. The long distance companies are required to flow through any reductions in access rates for the benefit of both the residential and business customers. The in-state connection charge, or other charges similarly named, will be eliminated under the committee substitute.

C. Government Sector Impact:

The PSC states that it will not realize a fiscal impact under this committee substitute. It states that the net increase in workload can be absorbed by existing resources.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Amendments:

None.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-35)
Verizon Ad

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-35

Verizon Wireless America's Choice Calling Plan for Live Oak, FL found at http://www.verizonwireless.com/b2c/store/.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 43
Company/ Alltel
Witness: David C. Blessing (DCB-35)
Date: 12/01/05

verizonwireless
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Talk to any of our over 43 million customers from the America's Choice calling coverage area, without roaming.

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Check if your friends & family are IN.

(Coverage not available everywhere. America's Choice covers 291 million people in the U.S.)

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Call Forwarding
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Caller ID
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TXT Messaging

Rate area map:

America's Choice Map
National Enhanced Services Map

To add this plan to your wireless package complete these steps:

Select plan minutes

Select	Monthly Home Airtime Minutes	Promotions	Monthly Access	Additional Minutes
	450	Unlimited IN Calling **AND** Night & Weekend Home Airtime Minutes	**$39.99**	$0.45
	Recommended 900	Unlimited IN Calling **AND** Night & Weekend Home Airtime Minutes	**$59.99**	$0.40
	1350	Unlimited IN Calling **AND** Night & Weekend Home Airtime Minutes	**$79.99**	$0.35
	2000	Unlimited IN Calling **AND** Night & Weekend Home Airtime Minutes	**$99.99**	$0.25
	4000	Unlimited IN Calling **AND** Night & Weekend Home Airtime Minutes	**$149.99**	$0.25
	6000	Unlimited IN Calling **AND** Night & Weekend Home Airtime Minutes	**$199.99**	$0.20

- Domestic Long Distance (airtime applies)(Unlimited)
- Domestic Roaming (No roaming charges) (Coverage not available in all areas)

- Night Hrs (M–F): 9:01 p.m.–5:59 a.m.
  Wknd Hrs: 12:00 a.m. Sat.–11:59 p.m. Sun.

Select optional services

In-Flight Services

☐	Airfone® Service for Verizon Wireless ($.69 per minute)	**$0.00**
☐	Airfone® Service for Verizon Wireless ($10 per month and $.10 per minute)	**$10.00/month**

Additional Features

☐	Detailed Billing	**$1.99/month**
☐	Roadside Assistance	**$2.99/month**

By clicking "Go To Phones Next" I acknowledge that I have read the plan terms & conditions below.

GO TO PHONES NEXT >

Additional Calling Plan Information
Monthly Home Airtime Allowance Minutes, National IN Calling, Night & Weekend Minutes and Home Airtime Per-Minute Rate are for use from within the America's Choice Home Airtime Rate and Coverage Area.

International Roaming
69¢/minute plus pass-through of serving carrier's tolls, surcharges and taxes. See verizonwireless.com for service availability.

411 Connect®
$1.49 per call plus airtime.

Required Equipment
CDMA tri-mode or All-Digital phone with Verizon Wireless software.

Required Minimum Term, Activation Fees and Early Termination Fee
One-year Customer Agreement — $35 activation fee per line.
Two-year Customer Agreement — $20 activation fee per line.
Early Termination Fee — $175 per line.

Taxes, Surcharges and other Fees

- Tolls, taxes, surcharges and other fees, such as E911 and gross receipt charges, vary by market and as of July 1, 2005, add between [6% and 33%] to your monthly bill and are in addition to your monthly access fees and airtime charges.
- Monthly Federal Universal Service Charge (varies quarterly based on FCC rate) is 2.13% per line as of October 1, 2005.
- Monthly Regulatory Charge (subject to change) is 5¢ per line.
- Monthly Administrative Charge (subject to change) is 40¢ per line as of October 1, 2005.
- The Federal Universal Service and Regulatory Charges are Verizon Wireless charges, not taxes. For more details on these charges, call 1-888-684-1888.

Important Information:
For more information, refer to the Customer Agreement.

Service is subject to the Customer Agreement, which you should read before activating service. Credit approval required. Billing, shipping and end-user address must be within the Verizon Wireless licensed and service areas where the wireless phone number is issued.

In some rare instances, dialing ***228** may alter your Calling Plan's Home Airtime Rate and Coverage Area. The accuracy of the roaming indicator on your phone cannot be guaranteed. Charges for calls will be based on the cell sites used and time of day at the telephone switching office that carries your call, which may be different than the time of day shown on your phone. Rates do not apply to credit card or operator-assisted calls, which may be required in certain areas. Usage rounded up to next full minute. Unused allowance minutes lost. Charges start when you first press **SEND** or the call connects to a network on outgoing calls, and when the call connects to a network (which may be before it rings) on incoming calls. Time may end several seconds after you press **END** or the call otherwise disconnects. For calls made on our network, we only bill for calls that connect (which includes calls answered by machines). Calls to 'toll-free' numbers are toll-free; you will be billed airtime. Billing for airtime and related charges may sometimes be delayed. [Delayed airtime may be applied in the month it appears on your bill against airtime included in your Calling Plan for that month, rather than against the included airtime for the month when you actually made or received the call. This may result in charges higher than you'd expect in the later month.]

Family SharePlan
Minimum of two lines required. Maximum of five lines. Only one line is the primary line. All lines must be activated on the same billing account and in the same market.

National IN Calling
If Caller ID is not present or Caller ID Block is initiated, National IN Calling does not apply to incoming calls and will apply to outgoing calls only. National IN Calling is not available to customers whose wireless exchange restricts the delivery of Caller ID or with fixed wireless devices with usage substantially from a single cell site. National IN Calling does not apply if Call Forwarding or No Answer/Busy Transfer features are activated or to data usage, including Push to Talk calls, Picture Messaging or Video Messaging, calls to check your voice mail and calls to Verizon Wireless customers using Airfone® Service or any of the **VZ**Global services. National IN Calling does not apply in those areas of Louisiana and Mississippi where your phone's roaming indicator flashes.

Internet Access
Mobile Office Kits, PC Cards, PDAs or other wireless modem devices may not be used for Internet access without a subscription to select **VZ**Access plans.

Verizon Wireless Calling Plans, Rate and Coverage Areas, rates, agreement provisions, business practices, procedures and policies are subject to change as specified in the Customer Agreement.

Last Update 09/01/05

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-36)
eBay Press Release

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-36

"eBay to Acquire Skype" eBay press release dated September 12, 2005; available at http://investor.ebay.com/downloads/eBay_PressRelease.pdf.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 44
Company/ Alltel
Witness: David C. Blessing (DCB-36)
Date: 12/01/05

eBay to Acquire Skype

London, September 12, 2005 – eBay Inc. (Nasdaq: EBAY; www.ebay.com) has agreed to acquire Luxembourg-based Skype Technologies SA, the global Internet communications company, for approximately $2.6 billion in up-front cash and eBay stock, plus potential performance-based consideration. The acquisition will strengthen eBay's global marketplace and payments platform, while opening several new lines of business and creating significant new monetization opportunities for the company. The deal also represents a major opportunity for Skype to advance its leadership in Internet voice communications and offer people worldwide new ways to communicate in a global online era. Skype, eBay and PayPal will create an unparalleled ecommerce and communications engine for buyers and sellers around the world.

"Communications is at the heart of ecommerce and community," said Meg Whitman, President and Chief Executive Officer of eBay. "By combining the two leading ecommerce franchises, eBay and PayPal, with the leader in Internet voice communications, we will create an extraordinarily powerful environment for business on the Net."

Founded in 2002 by Niklas Zennström and Janus Friis, Skype offers high-quality voice communications to anyone with an Internet connection anywhere in the world. The Skype software is easy to download and install, and enables free calls between Skype users online. Skype's premium services provide low-cost connectivity to traditional fixed and mobile telephones. Skype's software also offers a robust set of features, including voicemail, instant messaging, call forwarding and conference calling. Upcoming product innovations include Skype video, expressive content such as avatars, and customized toolbars for Outlook and Internet Explorer.

One of the fastest growing companies on the Internet, Skype already has 54 million members in 225 countries and territories. Skype is currently adding approximately 150,000 users a day and has created a thriving ecosystem of products, services, developers, and affiliates. Skype is considered the market leader in virtually all countries in which it does business. In North America alone, Skype has more users and serves more voice minutes than any other Internet voice communications provider.

"Our vision for Skype has always been to build the world's largest communications business and revolutionize the ease with which people can communicate through the Internet," said Niklas Zennström, Skype CEO and co-founder. "We can't think of any better platform to fulfill this vision to become the voice of the Internet than with eBay and PayPal."

"We're great admirers of how eBay and PayPal have simplified global ecommerce and payments," said Janus Friis, Skype co-founder and senior vice president, strategy. "Together we feel we can really change the way that people communicate, shop and do business online."

Zennström and Friis will remain in their current positions. Zennström will report to eBay CEO Whitman and join eBay's senior executive team.

A Powerful Ecommerce and Communications Engine

Online shopping depends on a number of factors to function well. Communications, like payments and shipping, is a critical part of this process. Skype will streamline and improve communications between buyers and sellers as it is integrated into the eBay marketplace. Buyers will gain an easy way to talk to sellers quickly and get the information they need to buy, and sellers can more easily build relationships

with customers and close sales. As a result, Skype can increase the velocity of trade on eBay, especially in categories that require more involved communications such as used cars, business and industrial equipment, and high-end collectibles.

The acquisition also enables eBay and Skype to pursue entirely new lines of business. For example, in addition to eBay's current transaction-based fees, ecommerce communications could be monetized on a pay-per-call basis through Skype. Pay-per-call communications opens up new categories of ecommerce, especially for those sectors that depend on a lead-generation model such as personal and business services, travel, new cars, and real estate. eBay's other shopping websites -- Shopping.com, Rent.com, Marktplaats.nl and Kijiji – can also benefit from the integration of Skype.

PayPal and Skype also make a powerful combination. For example, a PayPal wallet associated with each Skype account could make it much easier for users to pay for Skype fee-based services, adding to the number of PayPal accounts and increasing payment volume.

In addition, Skype can help expand the eBay and PayPal global footprint by providing buyers and sellers in emerging ecommerce markets, such as China, India, and Russia, with a more personal way to communicate online. And consumers in markets where eBay currently has a limited presence, such as Japan and Scandinavia, can learn about eBay and PayPal through Skype. Skype can also help streamline cross-border trading and communications.

With its rapidly expanding network of users, the Skype business complements the eBay and PayPal platforms. Each business is self-reinforcing, organically bringing greater returns with each new user or transaction. The three services can also reinforce and accelerate the growth of one another, thereby increasing the value of the combined businesses. Working together, they can create an unparalleled engine for ecommerce and communications around the world.

Transaction and Financial Information

eBay will acquire all of the outstanding shares of privately-held Skype for a total up-front consideration of approximately €2.1 billion, or approximately $2.6 billion, which is comprised of $1.3 billion in cash and the value of 32.4 million shares of eBay stock, which are subject to certain restrictions on resale.

The maximum amount potentially payable under the performance-based earn-out is approximately €1.2 billion, or approximately $1.5 billion, and would be payable in cash or eBay stock, at eBay's discretion, with an expected payment date in 2008 or 2009. Skype shareholders were offered the choice between several consideration options for their shares. Shareholders representing approximately 40% of the Skype shares chose to receive a single payment in cash and eBay stock at the close of the transaction. Shareholders representing the remaining 60% of the Skype shares chose to receive a reduced up-front payment in cash and eBay stock at the close plus potential future earn-out payments which are based on performance-based goals for active users, gross profit and revenue.

The above-mentioned dollar and eBay share amounts are approximate, based on the Euro-Dollar exchange rate and eBay's stock price as of September 9, 2005. The final value of the stock component of the consideration may vary significantly from this estimate based on the value of eBay stock at closing.

Skype generated approximately $7 million in revenues in 2004, and the company anticipates that it will generate an estimated $60 million in revenues in 2005 and more than $200 million in 2006. For Q4-05, eBay expects the acquisition to be dilutive to pro forma and GAAP earnings per share by $0.01 and $0.04 respectively. For the full year 2006, eBay expects the transaction to be dilutive to pro forma and GAAP

earnings per share by $0.04 and $0.12 respectively, with breakeven on a pro forma basis expected in the fourth quarter of 2006. On a long-term basis, eBay expects Skype operating margins could be in the range of 20% to 25%.

The acquisition is subject to various closing conditions and is expected to close in the fourth quarter of 2005.

About eBay Inc.
Founded in 1995, eBay pioneers communities built on commerce, sustained by trust, and inspired by opportunity. eBay enables ecommerce on a local, national and international basis with an array of websites – including the eBay Marketplace, PayPal, Kijiji, Rent.com and Shopping.com – that bring together millions of buyers and sellers every day.

About Skype Technologies SA
Skype, the Global Internet Communications Company™, allows people everywhere to make free, unlimited, superior quality voice calls via its award-winning innovative peer-to-peer software for Windows, Linux, Mac OS X, and Pocket PC platforms. Skype is available in 27 languages and is the fastest growing voice communications offering worldwide. Since its launch in August 2003, Skype has been downloaded more than 163 million times in 225 countries and territories. Fifty-four million people are registered to use Skype's free services, with over 3 million simultaneous users on the network at any one time. Skype Technologies SA is headquartered in Luxembourg and is growing its offices in London and Estonia. www.skype.com

Forward-Looking Statements
This announcement contains forward-looking statements regarding Skype and the expected impact of the acquisition of Skype on eBay's financial results. Those statements involve risks and uncertainties, and actual results could differ materially from those discussed. Factors that could cause or contribute to such differences include, but are not limited to, the timing of the closing of the transaction, the possibility that the transaction may not close, the reaction of the users of Skype's services, the future growth of Skype's user base and public acceptance of Internet voice communication services, rapid technological changes in the Internet voice communications sector, the reaction of competitors to the transaction, global developments in the regulation of Internet voice communication services including those provided by Skype, the possibility that integration of Skype's offerings following the transaction may be more difficult than expected, and the possibility that entry by Skype and eBay into potential new lines of business will not be successful. More information about potential factors which could affect eBay's business and financial results is included in eBay's Annual Report on Form 10-K for the year ended December 31, 2004, the company's Quarterly Reports on Form 10-Q, and current reports on Form 8-K. All forward-looking statements are based on information available to eBay on the date hereof, and eBay assumes no obligation to update such statements.

###

Editor's Note
eBay will host an investor conference call to discuss the announcement at 5 am Pacific Time today. A live webcast of the conference call can be accessed through the eBay's Investor Relations website at http://investor.ebay.com. An archive of the webcast will be accessible through the same link.

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Dkt. No _____
D. Blessing Ex. No. ___ (DCB-37)
Cox Website

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-37

Cox Communications website at http://www.cox/GainesvilleOcala/

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-T/ Exhibit No. 45
Company/ Alltel
Witness: David C. Blessing (DCB-37)
Date: 12/01/05

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- **Free Professional Installation** — For new service orders, the telephone portion of the professional installation charges are waived, a one-time savings of up to $50. see offer details
- **Free Cox High Speed Internet Modem** — Are you renting your modem, own an older modem or ha[ve] been thinking about getting high-speed Internet? When you order Cox Digital Telephone, you receive use of a Cox High Speed Internet modem free of charge, even if you are renting now. see offer detail

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Dkt. No _____
D. Blessing Ex. No. ___ (DCB-38)
Time Warner 10-Q

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-38

Time Warner Inc, Form 10Q Quarterly Report, Filed 8/3/2005 For Period Ending 6/30/2005.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 46
Company/ Alltel
Witness: David C. Blessing (DCB-38)
Date: 12/01/05

TIME WARNER INC

FORM 10-Q
(Quarterly Report)

Filed 8/3/2005 For Period Ending 6/30/2005

Address	ONE TIME WARNER CENTER
	NEW YORK, New York 10019
Telephone	212-484-8000
CIK	0001105705
Industry	Computer Services
Sector	Technology
Fiscal Year	12/31

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

☑ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT of 1934**

for the quarterly period ended June 30, 2005 or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT**

of 1934 for the transition period from _____ to _____.

Commission File Number 1-15062

TIME WARNER INC.

(Exact name of registrant as specified in its charter)

Delaware	13-4099534
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

One Time Warner Center
New York, New York 10019
(212) 484-8000
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act). Yes ☑ No ☐

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Description of Class	Shares Outstanding as of July 29, 2005
Common Stock — $.01 par value	4,606,921,311
Series LMCN-V Common Stock — $.01 par value	87,245,036

TIME WARNER INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND OTHER FINANCIAL INFORMATION

TIME WARNER INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION

INTRODUCTION

Management's discussion and analysis of results of operations and financial condition ("MD&A") is provided as a supplement to the accompanying consolidated financial statements and notes to help provide an understanding of Time Warner Inc.'s ("Time Warner" or the "Company") financial condition, changes in financial condition and results of operations. MD&A is organized as follows:

- *Overview.* This section provides a general description of Time Warner's business segments, as well as recent developments the Company believes are important in understanding the results of operations and financial condition or in understanding anticipated future trends.
- *Results of operations.* This section provides an analysis of the Company's results of operations for the three and six months ended June 30, 2005 compared to the same periods in 2004. This analysis is presented on both a consolidated and a business segment basis. In addition, a brief description is provided of significant transactions and events that impact the comparability of the results being analyzed.
- *Financial condition and liquidity.* This section provides an analysis of the Company's financial condition as of June 30, 2005 and cash flows for the six months ended June 30, 2005.
- *Risk factors and caution concerning forward-looking statements.* This section provides a description of risk factors that could adversely affect the operations, business or financial results of the Company or its business segments and the use of forward-looking information appearing in this report, including in MD&A and the consolidated financial statements. Such information is based on management's current expectations about future events, which are inherently susceptible to uncertainty and changes in circumstances.

Use of Operating Income (Loss) before Depreciation and Amortization and Free Cash Flow

The Company utilizes Operating Income (Loss) before Depreciation and Amortization, among other measures, to evaluate the performance of its businesses. Operating Income (Loss) before Depreciation and Amortization is considered an important indicator of the operational strength of the Company's businesses. Operating Income (Loss) before Depreciation and Amortization eliminates the uneven effect across all business segments of considerable amounts of noncash depreciation of tangible assets and amortization of certain intangible assets that were recognized in business combinations. A limitation of this measure, however, is that it does not reflect the periodic costs of certain capitalized tangible and intangible assets used in generating revenues in the Company's businesses. Management evaluates the costs of such tangible and intangible assets, the impact of related impairments, as well as asset sales through other financial measures, such as capital expenditures, investment spending and return on capital.

Free Cash Flow is Cash Provided by Operations (as defined by U.S. generally accepted accounting principles) plus payments related to securities litigation, less cash provided by discontinued operations, capital expenditures and product development costs, principal payments on capital leases, and partnership distributions, if any. Free Cash Flow is considered to be an important indicator of the Company's liquidity, including its ability to reduce net debt, make strategic investments, pay dividends to common shareholders and repurchase stock. A limitation of this measure, however, is that it does not reflect securities litigation payments, which reduce liquidity.

Both Operating Income (Loss) before Depreciation and Amortization and Free Cash Flow should be considered in addition to, not as a substitute for, the Company's Operating Income (Loss), Net Income (Loss) and various cash flow measures (e.g., Cash Provided by Operations), as well as other measures of financial performance and liquidity reported in accordance with U.S. generally accepted accounting principles.

TIME WARNER INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION — (Continued)

OVERVIEW

Time Warner is a leading media and entertainment company whose major businesses encompass an array of the most respected and successful media brands. Among the Company's brands are HBO, CNN, AOL, *People, Sports Illustrated, Time* and Time Warner Cable. The Company has produced and distributed films including *The Lord of the Rings* trilogy, the *Harry Potter* series, *Million Dollar Baby* and *Batman Begins* and television programs including *ER, Two and a Half Men, Without a Trace* and *The West Wing.* During the six months ended June 30, 2005, the Company generated revenues of $21.227 billion (up 1% from $21.045 billion in 2004), Operating Income before Depreciation and Amortization of $2.159 billion (down 57% from $5.042 billion in 2004), Operating Income of $548 million (down 84% from $3.454 billion in 2004), Net Income of $642 million (down 63% from $1.738 billion in 2004), Cash Provided by Operations of $3.463 billion (up 5% from $3.306 billion in 2004) and Free Cash Flow of $1.959 billion (up 12% from $1.743 billion in 2004). The 2005 results reflect the effects of a $3 billion pretax charge related to securities litigation as discussed further in "Other Recent Developments."

Time Warner Businesses

Time Warner classifies its operations into five reportable segments: AOL, Cable, Filmed Entertainment, Networks and Publishing.

AOL. America Online, Inc. ("AOL" or "America Online") is a leader in interactive services, web brands, Internet technologies and e-commerce services, with 27.0 million total AOL brand subscribers in the U.S. and Europe at June 30, 2005. AOL reported total revenues of $4.230 billion (20% of the Company's overall revenues), $1.076 billion in Operating Income before Depreciation and Amortization and $692 million in Operating Income for the six months ended June 30, 2005. AOL generates its revenues primarily from subscription fees charged to subscribers and from providing advertising services.

America Online is organized into four business units: Access, Audience, Digital Services and International. This structure reflects AOL's increased emphasis on generating higher advertising and search revenues, which the Company believes will continue to grow for the foreseeable future.

Historically, AOL's primary product offering has been an online subscription service that includes a component of telephone dial-up Internet access. This product, offered under a variety of different terms and price plans, generates the substantial majority of AOL's revenues. Over the past several years, the AOL Access business has experienced significant declines in U.S. subscribers and related Subscription revenues, and these declines are expected to continue. Driving this decrease is the continued industry-wide maturing of the premium dial-up services business, as consumers migrate to high-speed broadband and lower-cost dial-up services. AOL continues to develop, change, test and implement marketing and new product strategies to attract and retain subscribers. For example, AOL recently launched a marketing campaign to emphasize to consumers the benefits of being an AOL subscriber. AOL is also pursuing agreements, such as the previously announced agreement with Time Warner Cable, to bundle the AOL service along with broadband access.

AOL's Audience business strategy focuses on generating Advertising revenue by expanding its audience and increasing usage across all of its web properties, including properties such as AOL.com, MapQuest, Moviefone and AOL Instant Messenger. Currently, a majority of Advertising revenues are generated from traffic on the AOL service, which is generally available only to subscribers. A key component of the Audience business strategy is the upcoming official re-launch in the third quarter of 2005 of the publicly available version of the AOL.com web portal that includes a substantial portion of AOL's content, features and tools that historically have been available only to AOL subscribers. AOL seeks to generate Advertising revenue from increased traffic that is expected to result from the re-launch of AOL.com through the use of branded advertising and performance-based advertising, including paid-search advertising, as well as from increased utilization and optimization of AOL advertising inventory. The

acquisition of Advertising.com Inc. ("Advertising.com") in the third quarter of 2004 also provides incremental growth in Advertising revenues, primarily through third-party performance-based advertising.

AOL has taken steps over the past several years to align costs with the declining dial-up subscriber base. These efforts have resulted in reductions in the cost of operating AOL's network through improved pricing and decreased levels of fixed commitments. These factors are expected to result in continued declines in operating costs throughout the remainder of 2005, although at a rate less than experienced in the first half of 2005.

AOL's International business unit, which primarily includes AOL Europe S.A. ("AOL Europe"), has also focused on balancing its subscription and advertising businesses. In late 2004, the International business unit entered into a new, multi-year search arrangement with a third party designed to provide incremental Advertising revenues.

Cable. Time Warner's cable business, Time Warner Cable Inc. and its subsidiaries ("TWC Inc."), is the second-largest cable operator in the U.S. (in terms of basic cable subscribers served). TWC Inc. managed approximately 10.905 million basic cable subscribers (including approximately 1.589 million subscribers of unconsolidated investees) at June 30, 2005, in highly clustered and upgraded systems in 27 states. TWC Inc. delivered revenues of $4.603 billion (21% of the Company's overall revenues), $1.722 billion of Operating Income before Depreciation and Amortization and $921 million in Operating Income for the six months ended June 30, 2005. As part of the strategy to expand TWC Inc.'s cable footprint, on April 20, 2005, the Company entered into an agreement to acquire, in conjunction with Comcast Corporation ("Comcast"), substantially all of the assets of Adelphia Communications Corporation ("Adelphia"). Please refer to "Other Recent Developments" for further details.

TWC Inc. offers three basic products — video, high-speed data and its newest service, Digital Phone. Video is TWC Inc.'s largest product in terms of revenues generated; however, the growth of its customer base for video cable service is limited, as the customer base has matured and industry-wide competition from direct-to-home satellite services has increased. Nevertheless, TWC Inc. is continuing to increase its video revenues through its offerings of advanced digital video services such as Digital Video, Video-on-Demand (VOD), Subscription-Video-on-Demand (SVOD) and Digital Video Recorders (DVR) that are available in all of TWC Inc.'s 31 divisions. TWC Inc.'s digital video subscriber base provides a broad base of potential customers for these advanced services. Video programming costs represent a major component of TWC Inc.'s expenses and are expected to continue to increase, reflecting an expansion of service offerings and contractual rate increases across TWC Inc.'s programming lineup.

High-speed data service has been one of TWC Inc.'s fastest-growing products over the past several years and is a key driver of its results. TWC Inc. expects continued strong growth in residential high-speed data subscribers and revenues for the foreseeable future; however, the rate of growth of both subscribers and revenue could be impacted by intensified competition for subscribers.

TWC Inc.'s new voice product, Digital Phone, has been launched in all of its divisions and is available to over 70% of TWC Inc.'s homes passed. Digital Phone customers receive unlimited local, in-state and domestic long distance calling, as well as call waiting, caller ID and enhanced "911" services for a monthly fixed fee. In the future, TWC Inc. intends to offer additional plans, including one that will provide unlimited local calling with separate long distance charges. Digital Phone enables TWC Inc. to offer its customers a combined, easy-to-use package of video, high-speed data and voice services, and to compete effectively against similar bundled products that are available from its competitors.

In addition to the subscription services, TWC Inc. also earns revenue by selling advertising time to national, regional and local businesses.

Filmed Entertainment. Time Warner's Filmed Entertainment businesses, Warner Bros. Entertainment Group ("Warner Bros.") and New Line Cinema Corporation ("New Line"), generated revenues of $5.650 billion (25% of the Company's overall revenues), $629 million in Operating Income before Depreciation and Amortization and $465 million in Operating Income for the six months ended June 30, 2005.

One of the world's leading studios, Warner Bros. has diversified sources of revenues with its film and television businesses, combined with an extensive film library and global distribution infrastructure. This diversification has helped Warner Bros. deliver consistent long-term growth and performance. New Line is the oldest independent film company in the world. Its primary source of revenues is the creation and distribution of theatrical motion pictures.

The sale of DVDs has been one of the largest drivers of the segment's profit growth over the last few years. Warner Bros.' library, consisting of more than 6,600 theatrical titles and 54,000 live-action and animated television titles, positions it to benefit from strong DVD sales.

Warner Bros. continues to develop its industry-leading television business, including the successful releases of television series into the home video market. For the 2004-2005 television season, Warner Bros. had more current productions on the air than any other studio, with prime-time series on all six broadcast networks (including *Two and a Half Men, Joey, ER, Without a Trace, The O.C., Cold Case, Smallville* and *The West Wing*). For the 2005-2006 television season, Warner Bros. anticipates having approximately 30 prime-time series on the fall schedule, more than any other studio.

Piracy, including physical piracy as well as illegal online file-sharing, continues to be a significant issue for the filmed entertainment industry. Piracy has expanded from music to movies and television programming due to advances in technology. The Company has taken a variety of actions to combat piracy over the last several years and will continue to do so, both individually and together with industry associations.

Networks. Time Warner's Networks group comprises Turner Broadcasting System, Inc. ("Turner"), Home Box Office ("HBO") and The WB Television Network ("The WB Network"). The Networks segment delivered revenues of $4.774 billion (21% of the Company's overall revenues), $1.422 billion in Operating Income before Depreciation and Amortization and $1.298 billion in Operating Income for the six months ended June 30, 2005.

The Turner networks — including such recognized brands as TBS, TNT, CNN, Cartoon Network and CNN Headline News — are among the leaders in advertising-supported cable TV networks. For over three consecutive years, more prime-time viewers watched advertising-supported cable TV networks than the national broadcast networks. For the six months ended June 30, 2005, TNT ranked first among ad-supported cable networks in total day and prime time delivery of its key demographics, adults 18-49 and adults 25-54. TBS ranked second among ad-supported cable networks in prime time delivery of its key demographic, adults 18-34.

The Turner networks generate revenues principally from the sale of advertising time and monthly subscriber fees paid by cable system operators, satellite companies and other affiliates. Turner has benefited from strong ratings and a strong advertising market. Key contributors to Turner's success are its continued investments in high-quality programming focused on original movies, sports, network premieres, licensed and original series, news and animation, as well as brand awareness and operating efficiency.

HBO operates the HBO and Cinemax multichannel pay television programming services, with the HBO service being the nation's most widely distributed pay television network. HBO generates revenues principally from monthly subscriber fees from cable system operators, satellite companies and other affiliates. An additional source of revenue is from the ancillary sales of its original programming, including such programs as *The Sopranos, Sex and the City, Six Feet Under* , *Band of Brothers* and *Deadwood.*

The WB Network is a broadcast television network whose target audience consists primarily of young adults in the 12-34 age group demographic. The WB Network generates revenues almost exclusively from the sale of advertising time. The WB Network experienced a decline in its audience of young adults in its target demographic during the 2004-2005 television season. This loss in audience had a significant effect on The WB Network's ability to grow its advertising revenue during the recently completed broadcast season. Along with a series of cost containment initiatives implemented during the year to offset the decline in advertising revenues, The WB Network is introducing an aggressive new slate of programming in the fall of 2005 that is designed to increase viewership among adults 18-34.

Publishing. Time Warner's Publishing segment consists principally of magazine publishing, book publishing and a number of direct-marketing and direct-selling businesses. The segment generated revenues of $2.742 billion (13% of the Company's overall revenues), $523 million in Operating Income before Depreciation and Amortization and $404 million in Operating Income for the six months ended June 30, 2005.

Time Inc. publishes approximately 140 magazines globally, including *People* , *Sports Illustrated* , *In Style* , *Southern Living* , *Time* , *Entertainment Weekly* , *Fortune* , *Real Simple* , *What's on TV* and *Cooking Light* . It generates revenues primarily from advertising, magazine subscription and newsstand sales, and drives growth through higher circulation and advertising on existing magazines, new magazine launches and acquisitions. Time Inc. owns IPC Media (the U.K.'s largest magazine company) and is the majority shareholder of magazine subscription marketer Synapse Group, Inc. In addition, Time Inc. continues to invest in new magazines, including *Pick Me Up* , a weekly women's magazine, and *TV Easy* , a weekly TV listings magazine, which IPC Media launched in the U.K. in January and May 2005, respectively. In the first quarter of 2005, Time Inc. acquired the remaining 51% stake it did not already own in Essence Communications Partners ("Essence"), the publisher of *Essence* . Time Inc.'s book publishing operations are conducted primarily by Time Warner Book Group, which had 43 books on the *New York Times* bestseller list during the first six months of 2005. Time Inc.'s direct-selling division, Southern Living At Home, sells home decor products through approximately 32,000 independent consultants at parties hosted in people's homes throughout the U.S.

Other Recent Developments

Legal Reserves Related to Securities Litigation

The Company has reached an agreement in principle for the settlement of the securities class action lawsuits included in the matters consolidated under the caption *In re: AOL Time Warner Inc. Securities & "ERISA" Litigation* and described in the Company's Annual Report on Form 10-K for the year ended December 31, 2004 (the "2004 Form 10-K"). The tentative settlement is reflected in a Memorandum of Understanding dated as of July 29, 2005 between the lead plaintiff and the Company. Under the proposed settlement, $2.4 billion will be paid by Time Warner into a settlement fund for the members of the class represented in the action. In addition, the $150 million previously paid by Time Warner into a fund in connection with the settlement of the investigation by the U.S. Department of Justice ("DOJ") will be made available to the class, and Time Warner will use its best efforts to have the $300 million it previously paid in connection with the settlement of its SEC investigation transferred to the settlement fund for the class. The proposed settlement is subject to completion of final documentation and preliminary and final court approval as well as other conditions. At this time, there can be no assurance that these conditions will be met and that the settlement of the securities class action litigation will receive preliminary or final court approval. Ernst & Young also has agreed to a settlement in this litigation matter and will pay $100 million.

In connection with reaching the agreement in principle on the securities class action litigation, the Company has established a reserve of $2.4 billion. Although the Company has reached an agreement in principle to settle the primary securities class action, other related litigation remains pending, including shareholder derivative actions, lawsuits alleging ERISA violations and securities actions brought by individual shareholders. The Company has established an additional reserve totaling $600 million in connection with the remaining related securities litigation matters pending against the Company. This $600 million amount represents the Company's current best estimate of its potential financial exposure in these matters. The aggregate $3 billion reserve established, however, does not consider any future insurance recoveries under existing insurance policies because the Company cannot reliably estimate the amount of recovery at this time (Note 10).

Common Stock Repurchase Program

On July 29, 2005, Time Warner's Board of Directors authorized a common stock repurchase program that allows Time Warner to repurchase, from time to time, up to $5 billion of common stock over a two-year period. Purchases for the stock repurchase program may be made from time to time on the open market and in privately negotiated transactions. Size and timing of these purchases will be based on a number of factors including price and business and market conditions.

Common Stock Dividend

As previously announced, the Company will start paying a regular quarterly cash dividend of $0.05 per share on its common stock, beginning in the third quarter of this year.

Adelphia Acquisition Agreement

On April 20, 2005, a subsidiary of the Company, Time Warner NY Cable LLC ("TW NY"), and Comcast each reached separate definitive agreements to, collectively, acquire substantially all the assets of Adelphia for a total of $12.7 billion in cash (of which TW NY will pay $9.2 billion and Comcast will pay the remaining $3.5 billion) and 16% of the common stock of TWC Inc.

At the same time that Comcast and TW NY entered into the Adelphia agreements, Comcast, TWC Inc. and/or their respective affiliates entered into agreements providing for the redemption of Comcast's interests in TWC Inc. and Time Warner Entertainment Company, L.P. ("TWE") (the "TWC Inc. Redemption Agreement" and the "TWE Redemption Agreement," respectively, and, collectively, the "TWC Inc. and TWE Redemption Agreements"). Specifically, Comcast's 17.9% interest in TWC Inc. will be redeemed in exchange for stock of a subsidiary of TWC Inc. holding cable systems serving approximately 587,000 subscribers (as of December 31, 2004), as well as approximately $1.9 billion in cash. In addition, Comcast's 4.7% interest in TWE will be redeemed in exchange for interests in a subsidiary of TWE holding cable systems serving approximately 168,000 subscribers (as of December 31, 2004), as well as approximately $133 million in cash. TWC Inc., Comcast and their respective subsidiaries will also swap certain cable systems to enhance their respective geographic clusters of subscribers ("Cable Swaps").

After giving effect to the transactions, TWC Inc. will gain systems passing approximately 7.5 million homes (as of December 31, 2004), with approximately 3.5 million basic subscribers. TWC Inc. will then manage a total of approximately 14.4 million basic subscribers. Time Warner will own 84% of TWC Inc.'s common stock, which will become publicly traded at the time of closing, and own a $2.9 billion indirect economic interest in TW NY, a subsidiary of TWC Inc.

These transactions are subject to customary regulatory review and approvals, including Hart-Scott-Rodino antitrust approval, Federal Communications Commission and local franchise approvals, as well as, in the case of the Adelphia acquisition, the Adelphia bankruptcy process, which involves approvals by the bankruptcy court having jurisdiction over Adelphia's Chapter 11 case and Adelphia's creditors. An amended plan of reorganization was filed with the bankruptcy court by Adelphia on June 25, 2005. Closing of the Adelphia acquisition is expected during the first half of 2006.

The purchase of Adelphia's assets is not dependent on the occurrence of the Cable Swaps and redemption transactions between Time Warner and Comcast. Furthermore, if Comcast fails to obtain certain necessary governmental authorizations, TW NY has agreed that it will also acquire the cable operations of Adelphia that would have been acquired by Comcast, with the purchase price payable in cash or TWC Inc. stock at the Company's discretion.

Government Investigations

As previously disclosed by the Company, the Securities and Exchange Commission ("SEC") and the DOJ had been conducting investigations into the accounting and disclosure practices of the Company. Those investigations focused on advertising transactions, principally involving the Company's America Online segment, the methods used by the America Online segment to report its subscriber numbers and the accounting related to the Company's interest in AOL Europe prior to January 2002.

The Company and its subsidiary, AOL, entered into a settlement with the DOJ in December 2004 that provided for a deferred prosecution arrangement for a two-year period. In addition, on March 21, 2005, the Company announced that the SEC has approved the Company's proposed settlement, which resolves the SEC's investigation of the Company.

Under the terms of the settlement with the SEC, the Company agreed, without admitting or denying the SEC's allegations, to be enjoined from future violations of certain provisions of the securities laws and to comply with the cease-and-desist order issued by the SEC to AOL in May 2000. The settlement also required the Company to:

- Pay a $300 million penalty, which will be used for a Fair Fund, as authorized under the Sarbanes-Oxley Act;
- Adjust its historical accounting for Advertising revenues in certain transactions with Bertelsmann, A.G. that were improperly or prematurely recognized, primarily in the second half of 2000, during 2001 and during 2002; as well as adjust its historical accounting for transactions involving three other AOL customers where there were Advertising revenues recognized in the second half of 2000 and during 2001;
- Adjust its historical accounting for its investment in and consolidation of AOL Europe; and
- Agree to the appointment of an independent examiner, who will either be or hire a certified public accountant. The independent examiner will review whether the Company's historical accounting for transactions with 17 counterparties identified by the SEC staff, principally involving online advertising revenues and including three cable programming affiliation agreements with related advertising elements, was in conformity with GAAP, and provide a report to the Company's audit and finance committee of its conclusions within 180 days of being engaged. The transactions that would be reviewed were entered into between June 1, 2000 and December 31, 2001, including subsequent amendments thereto, and involved online advertising and related transactions for which revenue was principally recognized before January 1, 2002.

The Company paid the $300 million penalty in March 2005; however, it will not be able to deduct the penalty for income tax purposes, be reimbursed or indemnified for such payment through insurance or any other source, or use such payment to setoff or reduce any award of compensatory damages to plaintiffs in related securities litigation pending against the Company. As described above, in connection with the proposed settlement of the primary securities class action, the Company has agreed to use its best efforts to have the $300 million transferred to the settlement fund for the class represented in the action. The historical accounting adjustments were reflected in the restatement of the Company's financial results for each of the years ended December 31, 2000 through December 31, 2003, which were included in the Company's 2004 Form 10-K.

The independent examiner has begun its review, which is expected to be completed by the end of the year. Depending on the independent examiner's conclusions, a further restatement might be necessary. It is also possible that, so long as there are unresolved issues associated with the Company's financial statements, the effectiveness of any registration statement of the Company or its affiliates may be delayed.

Investment in Google Inc.

In May 2004, America Online exercised a warrant for approximately $22 million and received approximately 7.4 million shares of Series D Preferred Stock of Google Inc. ("Google"). Each of these shares converted automatically into shares of Google's Class B common stock immediately prior to the closing of Google's initial public offering on August 24, 2004. In connection with this offering, America Online converted approximately 2.4 million shares of its Google Class B common stock into an equal number of shares of Google's Class A common stock. Such Class A shares were sold in the offering for $195 million, net of the underwriters' discounts and commissions, and the Company recorded a gain of approximately $188 million in the third quarter of 2004. Beginning in March, the Company entered into agreements to sell its remaining 5.1 million shares at an average share price of approximately $185. The sales under such agreements settled on May 3, 2005, and the Company received total cash consideration of approximately $940 million, resulting in a gain of approximately $925 million recognized in the second quarter of 2005, which is included as a component of Other income, net.

Mandatorily Convertible Preferred Stock

At December 31, 2004, the Company had outstanding one share of its Series A mandatorily convertible preferred stock, par value $0.10 per share, face value of $1.5 billion (the "Series A Preferred Stock"), held by a trust for the benefit of Comcast, that was issued on March 31, 2003, as part of the TWE Restructuring. In accordance with the terms of the stock, on March 31, 2005, the Series A Preferred Stock was automatically converted into 83,835,883 shares of common stock of the Company, valued at $1.5 billion, and such amount was reclassified to equity in the accompanying consolidated balance sheet. Prior to the conversion, an estimate of the number of shares of common stock issuable upon the conversion of the Series A Preferred Stock based on the fair market value of the common stock at the end of the applicable period was included only in the calculation of the Company's diluted earnings per share. Following the issuance of the common stock upon the conversion of the Series A Preferred Stock, the shares issued are included in the calculation of both the basic and diluted earnings per share.

Urban Cable Works of Philadelphia, L.P.

Urban Cable Works of Philadelphia, L.P. ("Urban Cable") is an unconsolidated joint venture of TWC Inc., with approximately 48,000 basic subscribers at June 30, 2005, that operates cable television systems in Philadelphia, Pennsylvania. Urban Cable is 40% owned by TWC Inc. and 60% owned by an investment group led by Inner City Broadcasting ("Inner City"). Under a management agreement, TWC Inc. is responsible for the day-to-day management of Urban Cable. During 2004, TWC Inc. and Inner City settled certain disputes regarding the joint venture for $34 million in cash.

TWC Inc. has also agreed to purchase, subject to receipt of applicable regulatory approvals, all of Inner City's interests in the Urban Cable venture for approximately $53 million in cash. In addition, upon closing, TWC Inc. will eliminate in consolidation $68 million of debt and interest owed to it by Urban Cable and will assume $47 million of Urban Cable's third-party debt. On March 3, 2005, the City Council of Philadelphia denied TWC Inc.'s request for approval of this transaction. TWC Inc. believes the denial was invalid, but is unable to predict when the transaction may be completed. In conjunction with the agreement to acquire substantially all of the assets of Adelphia, Urban Cable would be transferred to Comcast as part of the Cable Swaps. For additional details, please refer to the Adelphia/Comcast discussion above. For the six months ended June 30, 2005, Urban Cable's revenues and Operating Income were $23 million and $2 million, respectively.

TIME WARNER INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION — (Continued)

RESULTS OF OPERATIONS

New Accounting Principles To Be Adopted

Stock-Based Compensation

In December 2004, the Financial Accounting Standards Board ("FASB") issued FASB Statement of Financial Accounting Standards ("Statement") No. 123 (Revised), "Share-Based Payment" ("FAS 123R"). FAS 123R requires all companies to measure compensation costs for all share-based payments (including employee stock options) at fair value and recognize such costs in the statement of operations. As a result, the application of the provisions of FAS 123R will have a significant impact on Operating Income before Depreciation and Amortization, Operating Income, net income and earnings per share. In April 2005, the SEC amended the compliance dates for FAS 123R from fiscal *periods* beginning after June 15, 2005 to fiscal *years* beginning after June 15, 2005. The Company will continue to account for share-based compensation using the intrinsic value method set forth in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25"), until the Company's adoption of FAS 123R beginning January 1, 2006.

In accordance with APB 25 and related interpretations, compensation expense for stock options is recognized in income based on the excess, if any, of the quoted market price of the stock at the grant date of the award or other measurement date over the amount an employee must pay to acquire the stock. The compensation costs related to stock options recognized by the Company pursuant to APB 25 were minimal. If a company measures share-based compensation using APB 25, it must also disclose what the impact would have been if it had measured share-based compensation using the fair value of the equity award on the date it is granted as provided in FAS 123, the predecessor of FAS 123R. See Note 1 for the pro forma impact if compensation costs for the Company's stock option plans had been determined based on the fair value method set forth in FAS 123.

Reclassifications

Certain reclassifications have been made to the prior year's financial information to conform to the June 30, 2005 presentation.

TIME WARNER INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION — (Continued)

Significant Transactions and Other Items Affecting Comparability

As more fully described herein and in the related notes to the accompanying consolidated financial statements, the comparability of Time Warner's results from continuing operations has been affected by certain significant transactions and other items in each period as follows:

	Three Months Ended		Six Months Ended	
	6/30/05	6/30/04	6/30/05	6/30/04
	(millions)		(millions)	
Legal reserves related to securities litigation	$(3,000)	$ —	$(3,000)	$ —
Restructuring costs	(11)	2	(23)	2
Asset impairments	—	(10)	(24)	(10)
Gains on disposal of assets, net	8	—	18	1
Impact on Operating Income	(3,003)	(8)	(3,029)	(7)
Investment gains, net	982	10	1,005	46
Gain (loss) on WMG option	(27)	—	53	—
Impact on other income, net	955	10	1,058	46
Pretax impact	(2,048)	2	(1,971)	39
Income tax impact	572	(1)	535	(16)
After-tax impact	$(1,476)	$ 1	$(1,436)	$ 23

Legal Reserves Related to Securities Litigation

As previously discussed, the three and six months ended June 30, 2005 include $3 billion in legal reserves related to the securities litigation (Note 10).

Restructuring Costs

Restructuring costs consist of charges related to employee terminations and exit activities. During the three and six months ended June 30, 2005, the Company incurred restructuring costs of $13 million and $30 million, respectively, at the Cable segment. In addition, restructuring charges at the AOL segment reflect a $2 million reduction for the three months ended June 30, 2005 and a net reduction of $7 million for the six months ended June 30, 2005 relating to changes in estimates of previously established restructuring accruals. During the three and six months ended June 30, 2004, the Company recorded a $2 million reduction in restructuring costs at the AOL segment, reflecting changes in estimates of previously established restructuring accruals (Note 9).

Asset Impairments

For the six months ended June 30, 2005, the Company recorded a $24 million noncash impairment charge related to goodwill associated with America Online Latin America, Inc. ("AOLA") following AOLA's March 2005 announcement that it intends to liquidate its operations. On June 24, 2005, AOLA filed a petition for Chapter 11 bankruptcy protection. For the three and six months ended June 30, 2004, the Company recognized a $10 million impairment charge related to a building held for sale at the AOL segment.

Gains on Disposal of Assets, Net

For the three and six months ended June 30, 2005, the Company recorded an approximate $5 million gain at the AOL segment related to the sale of a building. The three and six months ended June 30, 2005 also include gains of $3 million and $5 million, respectively, from the resolution of previously contingent gains related to the 2004 sale of Netscape Security Solutions. In addition, the six months ended June 30, 2005 includes an $8 million gain at the

Publishing segment related to the collection of a loan made in conjunction with the Company's 2003 sale of Time Life Inc. ("Time Life"), which was previously fully reserved due to concerns about recoverability.

For the six months ended June 30, 2004, the Company recognized an $8 million gain at the Publishing segment related to the sale of a building, partially offset by an approximate $7 million loss at the Networks segment related to the sale of the winter sports teams.

Investment Gains, Net

For the three and six months ended June 30, 2005, the Company recognized net gains of $982 million and $1.005 billion, respectively, primarily related to the sale of investments, including a $925 million gain on the sale of the Company's remaining investment in Google and a $36 million gain, which was previously deferred, related to the Company's 2002 sale of a portion of its interest in Columbia House Holdings Inc. ("Columbia House"). The Company sold its 7.5% remaining interest in Columbia House for approximately $9 million in July of 2005, and this will result in an approximate $1 million gain in the third quarter of 2005. For the three and six months ended June 30, 2005, investment gains also include $1 million and $2 million, respectively, of gains to reflect market fluctuations in equity derivative instruments.

For the three and six months ended June 30, 2004, the Company recognized net gains of $10 million and $46 million, respectively, primarily related to the sale of investments. Investment gains were partially offset by $5 million and $7 million, respectively, of losses to reflect market fluctuations in equity derivative instruments.

Gain (Loss) on WMG Option

In the first quarter of 2005, the Company entered into an agreement with Warner Music Group ("WMG") pursuant to which WMG agreed to a cash purchase of the Company's option to acquire shares of WMG that it received in connection with the sale of WMG in 2004. Under the agreement, the cash purchase of the option would be made at the time of the WMG public offering at a price based on the initial public offering price per share, net of any underwriters' discounts. As a result of the estimated public offering price range, the Company adjusted the value of the option in the first quarter of 2005 from $85 million to $165 million and, accordingly, recorded a gain of $80 million. In the second quarter of 2005, WMG's registration statement was declared effective and it completed its initial public offering at a reduced price from its initial estimated range, and the Company received approximately $138 million from the sale of its option. As a result of these events, for the three and six months ended June 30, 2005, the Company recorded a $27 million loss and a $53 million net gain, respectively, related to this option (Note 2).

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Three and Six Months Ended June 30, 2005 Compared to Three and Six Months Ended June 30, 2004

Consolidated Results

Revenues. As shown below, consolidated revenues decreased 1% to $10.744 billion for the three months ended June 30, 2005 from $10.860 billion for the three months ended June 30, 2004. For the six months ended June 30, 2005, consolidated revenues increased 1% to $21.227 billion compared to $21.045 billion for the six months ended June 30, 2004. The components of revenues are as follows:

	Three Months Ended			Six Months Ended		
	6/30/05	6/30/04	% Change	6/30/05	6/30/04	% Change
		(millions)			(millions)	
Subscription	$ 5,618	$ 5,486	2%	$11,110	$ 10,800	3%
Advertising	2,020	1,846	9%	3,667	3,293	11%
Content	2,816	3,237	(13%)	5,899	6,354	(7%)
Other	290	291	—	551	598	(8%)
Total revenues	$10,744	$ 10,860	(1%)	$21,227	$ 21,045	1%

The increase in Subscription revenues for the three and six months ended June 30, 2005 was primarily related to increases at the Cable and Networks segments, offset partially by a decline at the AOL segment. The increase at the Cable segment for the three and six months was principally due to the continued penetration of advanced services (primarily high-speed data, Digital Phone and advanced digital video services) and video rate increases. The increase at the Networks segment for the three and six months was due primarily to higher subscription rates at Turner and HBO and, to a lesser extent, an increase in the number of subscribers at Turner and HBO. The AOL segment declined for the three and six months primarily as a result of lower domestic subscribers, partially offset by growth at AOL Europe due to the favorable effects of foreign currency exchange rates.

The increase in Advertising revenues for the three and six months ended June 30, 2005 was primarily due to growth at the AOL, Networks and Publishing segments. The increase at the AOL segment for the three and six months was due primarily to revenues associated with the acquisition of Advertising.com and growth in paid-search advertising. The increase at the Networks segment for the three and six months was primarily driven by higher CPMs (advertising cost per one thousand viewers) and sellouts at Turner's entertainment networks, partly offset by a decline at The WB Network as a result of lower ratings. The increase at the Publishing segment for the three and six months was due to contributions from new magazine launches, the acquisition of the remaining interest in the publisher of *Essence* , and growth at *In Style* , *Real Simple* , and *Southern Living* , offset partly by lower Advertising revenues from *Time* , *Sports Illustrated* and *Fortune* . In addition, the six months ended June 30, 2005 benefited from an increase in Advertising revenues from *People* in the first quarter of 2005.

The decrease in Content revenues for the three and six months ended June 30, 2005 was principally due to declines at the Filmed Entertainment and Networks segments. The decline at the Filmed Entertainment segment for the three months was primarily driven by a decline in theatrical product revenues, partially offset by an increase in television product revenues. For the six months, the decrease was driven by a decline in both theatrical and television product revenues. The decline at the Networks segment for the three and six months was due primarily to lower licensing revenue at HBO associated with fewer episodes of *Everybody Loves Raymond* , partially offset by higher ancillary sales of HBO's original programming. In addition, for the six months, Content revenues declined at the Networks segment due to the absence of the winter sports teams at Turner, which were sold at the end of the first quarter of 2004.

Other revenues were flat for the three months ended June 30, 2005. For the six months ended June 30, 2005, the decline in Other revenues was attributable to a decline at the Networks segment, primarily due to the sale of the winter sports teams.

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Each of the revenue categories is discussed in greater detail by segment in the "Business Segment Results."

Costs of Revenues. For the three months ended June 30, 2005 and 2004, costs of revenues totaled $6.249 billion and $6.342 billion, respectively, and as a percentage of revenues were 58% for both periods. For the six months ended June 30, 2005 and 2004, costs of revenues totaled $12.249 billion and $12.313 billion, respectively, and as a percentage of revenues were 58% and 59%, respectively. Costs of revenues as a percentage of revenues were flat for the three months, primarily as a result of declines in margin at the Publishing and Film segments, offset by an increase in margin at AOL. The improvement in costs of revenues as a percentage of revenues for the six months related primarily to improved margins at the AOL and Networks segments. The segment variations are discussed in detail in "Business Segment Results."

Selling, General and Administrative Expenses. For the three months ended June 30, 2005 and 2004, selling, general and administrative expenses increased 2% to $2.571 billion in 2005 from $2.515 billion in 2004. For the six months ended June 30, 2005 and 2004, selling, general and administrative expenses increased 3% to $5.099 billion in 2005 from $4.960 billion in 2004. The increase for the three and six months resulted primarily from increases at all segments except the AOL segment and Corporate. The segment variations are discussed in detail in "Business Segment Results."

Legal Reserves Related to Securities Litigation. As previously discussed in "Other Recent Developments," the three and six months ended June 30, 2005 include $3 billion in legal reserves related to the securities litigation.

Reconciliation of Operating Income (Loss) before Depreciation and Amortization to Operating Income (Loss) and Net Income (Loss).

The following table reconciles Operating Income (Loss) before Depreciation and Amortization to Operating Income (Loss). In addition, the table provides the components from Operating Income (Loss) to Net Income (Loss) for purposes of the discussions that follow:

	Three Months Ended			Six Months Ended		
	6/30/05	6/30/04	% Change	6/30/05	6/30/04	% Change
		(millions)			(millions)	
Operating Income (Loss) before Depreciation and Amortization	$ (422)	$2,637	NM	$ 2,159	$ 5,042	(57%)
Depreciation	(657)	(642)	2%	(1,309)	(1,277)	3%
Amortization	(152)	(157)	(3%)	(302)	(311)	(3%)
Operating Income (Loss)	(1,231)	1,838	NM	548	3,454	(84%)
Interest expense, net	(324)	(383)	(15%)	(670)	(787)	(15%)
Other income, net	989	33	NM	1,100	64	NM
Minority interest expense, net	(72)	(62)	16%	(131)	(118)	11%
Income (Loss) before income taxes, discontinued operations and cumulative effect of accounting change	(638)	1,426	NM	847	2,613	(68%)
Income tax benefit (provision)	317	(544)	NM	(205)	(1,019)	(80%)
Income (Loss) before discontinued operations and cumulative effect of accounting change	(321)	882	NM	642	1,594	(60%)
Discontinued operations, net of tax	—	(105)	NM	—	110	NM
Cumulative effect of accounting change, net of tax	—	—	—	—	34	NM
Net income (loss)	$ (321)	$ 777	NM	$ 642	$ 1,738	(63%)

Operating Income (Loss) before Depreciation and Amortization. Time Warner's Operating Income (Loss) before Depreciation and Amortization was a loss of $422 million for the three months ended June 30, 2005 compared to income of $2.637 billion for the three months ended June 30, 2004. Excluding the items previously discussed under "Significant Transactions and Other Items Affecting Comparability" totaling $3.003 billion and $8 million of net expense for 2005 and 2004, respectively, Operating Income (Loss) before Depreciation and Amortization decreased $64 million principally as a result of a decline at the Filmed Entertainment segment, partially offset by growth at the Cable and AOL segments.

For the six months ended June 30, 2005, Operating Income before Depreciation and Amortization was $2.159 billion compared to $5.042 billion in 2004. Excluding the items previously discussed under "Significant Transactions and Other Items Affecting Comparability" of $3.029 billion and $7 million of net expense, Operating Income before Depreciation and Amortization improved by $139 million principally as a result of growth at the Cable and AOL segments, partially offset by a decline at the Filmed Entertainment segment.

The segment variations are discussed in detail under "Business Segment Results."

Depreciation Expense. Depreciation expense increased to $657 million and $1.309 billion for the three and six months ended June 30, 2005 from $642 million and $1.277 billion for the three and six months ended June 30, 2004, respectively. The increase in depreciation expense for the three and six months primarily related to the Cable segment, partially offset by a decrease at AOL. The increase in depreciation expense at Cable for the three and six months reflects increased spending on customer premise equipment that is depreciated over a shorter useful life compared to the mix of assets previously purchased. The decrease in depreciation expense at AOL for the three and six months relates primarily to a decline in network assets as a result of membership declines.

Amortization Expense. Amortization expense decreased to $152 million and $302 million for the three and six months ended June 30, 2005, respectively, from $157 million and $311 million for the three and six months ended June 30, 2004, respectively. The decrease relates primarily to a decline in amortization at the Publishing segment as a result of certain intangibles with short useful lives, such as customer lists, becoming fully amortized beginning in the latter part of 2004.

Operating Income (Loss). Time Warner's Operating Income (Loss) was a loss of $1.231 billion for the three months ended June 30, 2005 compared to income of $1.838 billion for the three months ended June 30, 2004. Excluding the items previously discussed under "Significant Transactions and Other Items Affecting Comparability" totaling $3.003 billion and $8 million of net expense for 2005 and 2004, respectively, Operating Income declined $74 million.

Time Warner's Operating Income was $548 million for the six months ended June 30, 2005 compared to $3.454 billion for the three months ended June 30, 2004. Excluding the items previously discussed under "Significant Transactions and Other Items Affecting Comparability" totaling $3.029 billion and $7 million of net expense for 2005 and 2004, respectively, Operating Income increased by $116 million.

These amounts reflect the changes in business segment Operating Income before Depreciation and Amortization, and the increase in depreciation expense, as discussed above.

Interest Expense, Net. Interest expense, net, decreased to $324 million and $670 million for the three and six months ended June 30, 2005, respectively, from $383 million and $787 million for the three and six months ended June 30, 2004, respectively, due primarily to lower average net debt levels and higher interest rates on cash investments.

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Other Income, Net. Other income, net, detail is shown in the table below:

	Three Months Ended		Six Months Ended	
	6/30/05	6/30/04	6/30/05	6/30/04
	(millions)		(millions)	
Investment gains, net	$982	$10	$1,005	$ 46
Gain (loss) on WMG option	(27)	—	53	—
Income from equity method investees	36	26	47	32
Other	(2)	(3)	(5)	(14)
Other income, net	$989	$33	$1,100	$ 64

The changes in investment gains, net, and the gain (loss) on the WMG option are discussed above in detail under "Significant Transactions and Other Items Affecting Comparability." Excluding the impact of these items, Other income, net, improved in 2005 as compared to the prior period, primarily from an increase in income from equity method investees.

Minority Interest Expense, Net. Time Warner had $72 million and $131 million of minority interest expense for the three and six months ended June 30, 2005, respectively, compared to $62 million and $118 million for the three and six months ended June 30, 2004, respectively. The increase relates primarily to larger profits recorded by TWC Inc., in which Comcast has a minority interest.

Income Tax Benefit (Provision). Income tax from continuing operations was a $317 million benefit for the three months ended June 30, 2005, compared to a provision of $544 million for the three months ended June 30, 2004 and was a provision of $205 million for the six months ended June 30, 2005, compared to a provision of $1.019 billion for the six months ended June 30, 2004. The Company's effective tax rate for continuing operations was a benefit of 50% and a provision of 24% for the three and six months ended June 30, 2005, respectively, as compared to provisions of 38% and 39% for the three and six months ended June 30, 2004, respectively. The change in the effective tax rate was primarily a result of the favorable impact of state tax law changes in Ohio and New York enacted in the second quarter of 2005, partially offset by non-deductible expense related to a portion of the settlement accrual for the securities litigation.

The state law changes relate to the method of taxation in Ohio and the method of apportionment in New York. In Ohio, the income tax is being phased-out and replaced with a gross receipts tax, while in New York the methodology for income apportionment is changing over time to a single receipts factor from a three factor formula. These tax law changes resulted in a reduction in certain deferred tax liabilities related to these states. Accordingly, the Company has recognized these reductions as noncash tax benefits totaling approximately $170 million for Ohio and $135 million for New York State in the second quarter of 2005.

Income (Loss) before Discontinued Operations and Cumulative Effect of Accounting Change. Income (Loss) before discontinued operations and cumulative effect of accounting change was a loss of $321 million for the three months ended June 30, 2005 compared to income of $882 million for the three months ended June 30, 2004. Basic and diluted net income (loss) per share before discontinued operations and cumulative effect of accounting change were both losses of $0.07 in 2005, compared to income of $0.19 for both basic and diluted net income per share before discontinued operations and cumulative effect of accounting change in 2004. Excluding the items previously discussed under "Significant Transactions and Other Items Affecting Comparability" totaling $1.476 billion of net expense and $1 million of income in 2005 and 2004, respectively, Income (loss) before discontinued operations and cumulative effect of accounting change improved by $274 million primarily due to the change in income tax benefit (provision) as discussed above.

Income before discontinued operations and cumulative effect of accounting change was $642 million for the six months ended June 30, 2005 compared to $1.594 billion for the six months ended June 30, 2004. Basic and diluted net income per share before discontinued operations and cumulative effect of accounting change were both $0.14 in

2005 compared to $0.35 and $0.34 in 2004, respectively. Excluding the items previously discussed under "Significant Transactions and Other Items Affecting Comparability" totaling $1.436 billion of net expense and $23 million of income, Income before discontinued operations and cumulative effect of accounting change improved by $507 million, primarily due to the change in income tax benefit (provision) and Operating Income as discussed above.

Discontinued Operations, Net of Tax. Included in the 2004 results for the three and six months ended June 30, 2004 are $93 million and $16 million, respectively, of pre-tax losses and a $12 million tax provision and $126 million tax benefit, respectively, from the operations of the Music business (Note 2).

Cumulative Effect of Accounting Change, Net of Tax. The Company recorded a $34 million benefit, net of tax, as a cumulative effect of accounting change upon the consolidation of AOLA in the first quarter of 2004 in accordance with FASB Interpretation No. 46 (Revised), "Consolidation of Variable Interest Entities."

Net Income (Loss) and Net Income (Loss) Per Common Share. Net income (loss) was a loss of $321 million for the three months ended June 30, 2005 compared to income of $777 million for the three months ended June 30, 2004. Basic and diluted net income (loss) per common share were both a loss of $0.07 in 2005, compared to income of $0.17 for both basic and diluted net income per common share in 2004. Net income was $642 million for the six months ended June 30, 2005 compared to $1.738 billion for the six months ended June 30, 2004. Basic and diluted net income per common share were both $0.14 in 2005 compared to $0.38 and $0.37 in 2004, respectively. Net income (loss) includes the items previously addressed under "Significant Transactions and Other Items Affecting Comparability," discontinued operations, net of tax, and the cumulative effect of accounting change, net of tax.

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Business Segment Results

AOL. Revenues, Operating Income before Depreciation and Amortization and Operating Income of the AOL segment for the three and six months ended June 30, 2005 and 2004 are as follows:

	Three Months Ended			Six Months Ended		
	6/30/05	6/30/04	% Change	6/30/05	6/30/04	% Change
		(millions)			(millions)	
Revenues:						
Subscription	$1,734	$ 1,902	(9%)	$ 3,508	$ 3,821	(8%)
Advertising	320	221	45%	631	435	45%
Other	43	54	(20%)	91	112	(19%)
Total revenues	2,097	2,177	(4%)	4,230	4,368	(3%)
Costs of revenues [a]	(961)	(1,056)	(9%)	(1,939)	(2,119)	(8%)
Selling, general and administrative [a]	(588)	(626)	(6%)	(1,208)	(1,265)	(5%)
Restructuring costs	2	2	—	7	2	250%
Asset impairment	—	(10)	NM	(24)	(10)	140%
Gain on sale of assets	8	—	NM	10	—	NM
Operating Income before Depreciation and Amortization	558	487	15%	1,076	976	10%
Depreciation	(143)	(170)	(16%)	(290)	(340)	(15%)
Amortization	(47)	(41)	15%	(94)	(83)	13%
Operating Income	$ 368	$ 276	33%	$ 692	$ 553	25%

[a] Costs of revenues and selling, general and administrative expenses exclude depreciation.

The reduction in Subscription revenues for the three and six months ended June 30, 2005 primarily reflects a decrease in domestic Subscription revenues (from $1.463 billion to $1.278 billion for the three months and from $2.934 billion to $2.591 billion for the six months), offset in part by an increase in Subscription revenues at AOL Europe (from $407 million to $430 million for the three months and from $836 million to $879 million for the six months). AOL's domestic Subscription revenues declined due primarily to a decrease in the number of domestic AOL brand subscribers and related revenues. AOL Europe's Subscription revenues increased as the result of the favorable impact of foreign currency exchange rates ($25 million and $50 million for the three and six months, respectively), partially offset by a decline in subscribers and related revenues.

The number of AOL brand domestic and European subscribers is as follows at June 30, 2005, March 31, 2005 and June 30, 2004 (millions):

	June 30, 2005	March 31, 2005	June 30, 2004
Subscriber category:			
AOL brand domestic [a]			
$15 and over	15.6	16.8	18.8
Under $15	5.2	4.9	4.6
Total AOL brand domestic	20.8	21.7	23.4
AOL Europe	6.2	6.3	6.3

[a] AOL includes in its subscriber count individuals, households or entities that have provided billing information and completed the registration process sufficiently to allow for an initial log-on to the AOL service.

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The average monthly Subscription revenue per subscriber ("ARPU") for each significant category of subscribers, calculated as total subscription revenue for the category divided by the average subscribers in the category for the applicable period, is as follows:

	Three Months Ended		Six Months Ended	
	6/30/05	6/30/04	6/30/05	6/30/04
Subscriber category:				
AOL brand domestic				
$15 and over	$20.84	$21.10	$20.68	$20.88
Under $15	13.31	13.07	13.21	12.92
Total AOL brand domestic	19.05	19.58	18.98	19.41
AOL Europe	22.31	20.84	22.71	21.28

Domestic subscribers to the AOL brand service include subscribers during introductory free-trial periods and subscribers at no or reduced monthly fees through member service and retention programs. Total AOL brand domestic subscribers include free-trial and retention members of approximately 11% at June 30, 2005, 13% at December 31, 2004 and 15% at June 30, 2004. Domestic AOL brand subscribers also include subscribers to a bundled broadband service, which combines the AOL service with high-speed Internet access provided by third-party broadband Internet access providers such as cable companies and telephone companies.

The largest component of the AOL brand domestic $15 and over price plans is the $23.90 price plan, which provides unlimited access to the AOL service using America Online's dial-up network and unlimited usage of the AOL service through any other Internet connection. The largest component of the AOL brand domestic under $15 price plans is the $14.95 per month price plan, which includes ten hours of dial-up access and unlimited usage of the AOL service through an Internet connection not provided by America Online, such as a high-speed broadband Internet connection via cable or digital subscriber lines. America Online continues to develop, test, change and implement price plans, service offerings and payment methods to attract and retain members to its AOL service and, therefore, the composition of AOL's subscriber base is expected to change over time.

The decline in AOL brand subscribers on plans priced $15 and over per month for the three and six months resulted from a number of factors, principally the continued maturing of dial-up services and subscribers adopting other dial-up and high-speed services. Further, during the periods, subscribers migrated from the premium-priced unlimited dial-up plans, including the $23.90 plan, to lower-priced limited dial-up plans, such as the $14.95 plan. The decline in AOL brand subscribers overall, and specifically in the $15 and over per month price plans, is expected to continue into the foreseeable future.

Growth in AOL brand subscribers on plans below $15 per month for the three and six months was driven principally by the migration of subscribers from plans $15 and over per month and, to a lesser extent, by new subscribers. AOL expects that the proportion of its subscribers on lower-priced plans will continue to increase. The AOL/TWC Inc. agreement relating to the bundling of the AOL service together with broadband access is still being implemented and the impact on the AOL segment and Time Warner's consolidated financial results is not expected to be significant during 2005.

Within the $15 and over per month category, the decrease in ARPU for the three and six months ended June 30, 2005, as compared to the similar periods in the prior year, was due primarily to a lower priced mix in subscriber price plans, partially offset by an increase in the percentage of revenue generating subscribers. Premium services revenues included in ARPU for the three and six months ended June 30, 2005 were $22 million and $42 million, respectively, compared to $26 million and $48 million for the three and six months ended June 30, 2004, respectively. ARPU for subscribers in the below $15 per month category increased primarily due to an improved mix in subscriber price plans and an increase in the percentage of revenue generating subscribers. In the below $15 per month category, premium services revenues included in ARPU for the three and six months ended June 30, 2005 were $8 million and $14 million, respectively, compared to $6 million and $11 million, for the three and six months ended June 30, 2004, respectively.

AOL Europe offers a variety of price plans, including bundled broadband, unlimited access to the AOL service using America Online's dial-up network and limited access plans, which are generally billed based on actual usage. AOL Europe continues to actively market bundled broadband plans, as AOL Europe's subscribers have been migrating from dial-up plans to bundled broadband plans, and this trend is expected to continue.

The ARPU for European subscribers for the three and six months ended June 30, 2005, as compared to the similar periods in the prior year, increased due to a change in the mix of price plans, with broadband subscribers growing as a percentage of total subscribers and an increase in premium services revenues. In addition, the three and six months benefited from the positive effect of changes in foreign currency exchange rates related to the strengthening of the Euro and British Pound relative to the U.S. Dollar. The total number of AOL brand subscribers at AOL Europe reflects a year-over-year decline in subscribers in France and Germany partially offset by an increase in the U.K.

In addition to the AOL brand service, America Online has subscribers to lower-cost services, both domestically and internationally, including the Netscape and CompuServe brands. These other brand services are not a significant source of revenue.

Advertising revenues increased for the three and six months primarily due to $60 million and $120 million, respectively, of revenues from sales of advertising run on third-party websites generated by Advertising.com, which was acquired in August 2004, and a $30 million and $57 million increase, respectively, in paid-search advertising. AOL expects Advertising revenues to continue to increase during the second half of 2005 due to contributions from Advertising.com's performance-based advertising, and expected growth in paid-search and traditional online advertising. However, the rate of growth is expected to be less than experienced in the first half of 2005 because the growth rate in the first half of 2005 benefited from the absence of Advertising.com in the first half of 2004.

Other revenues primarily include software licensing revenue and revenue from providing the Cable segment access to the AOL Transit Data Network ("ATDN") for high-speed access to the Internet. Other revenues decreased for the three and six months due primarily to lower ATDN revenue from TWC Inc., reflecting lower pricing under the terms of a new agreement and lower network usage.

For the three and six months ended June 30, 2005, costs of revenues decreased 9% and 8%, respectively, and, as a percentage of revenues, decreased to 46% for both the three and six months ended June 30, 2005 from 49% for both the three and six months ended June 30, 2004. For the three and six months ended June 30, 2005, the declines related primarily to lower network-related expenses. Network-related expenses decreased 32% to $338 million and 32% to $697 million for the three and six months, respectively, principally attributable to improved pricing and decreased levels of fixed commitments. These factors are expected to result in continued declines in network expenses throughout 2005, although at a rate less than that experienced in the first half of 2005. The decline in network costs was partially offset by costs associated with Advertising.com, which was acquired in August 2004, and higher broadband and member service costs at AOL Europe.

AOL's three and six months ended June 30, 2004 results included $20 million and $33 million, respectively, of expense related to the November 2003 expiration of the federal moratorium on Internet sales taxes. The six months ended June 30, 2004 results also included $15 million of benefits related to the favorable rulings on certain state sales tax matters. In the fourth quarter of 2004, the federal moratorium on Internet sales taxes was retroactively reinstated to November 2003 and extended through 2007. As a result of the retroactive application of the legislation, the previously accrued amounts were reversed in the fourth quarter of 2004.

The decrease in selling, general and administrative expenses for the three and six months ended June 30, 2005 primarily related to a decrease in marketing costs, partially offset by additional costs resulting from the acquisition of Advertising.com and higher general and administrative costs. The three and six months ended June 30, 2005 amounts also include a $15 million benefit related to the favorable resolution of a European value-added tax matter.

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The decrease in marketing costs primarily resulted from lower spending on member acquisition activities, partially offset by an increase in brand advertising. The three and six months ended June 30, 2004 also included an approximate $25 million adjustment to reduce excess marketing accruals made in prior years, primarily related to AOL Europe. Marketing costs are expected to continue to decrease during the remainder of 2005 compared to the prior year.

As previously discussed under "Significant Transactions and Other Items Affecting Comparability," the results for the three and six months ended June 30, 2005 include an approximate $5 million gain on the sale of a building and gains of $3 million and $5 million, respectively, from the resolution of previously contingent gains related to the 2004 sale of Netscape Security Solutions. The three months ended June 30, 2005 also reflect a $2 million reduction in restructuring costs and a net reduction of $7 million for the six months ended June 30, 2005 relating to changes in estimates of previously established restructuring accruals. The six months ended June 30, 2005 also include a $24 million noncash goodwill impairment charge related to AOLA. The three and six months ended June 30, 2004 included the reversal of $2 million of previously established restructuring accruals, that were no longer required and a $10 million impairment charge related to a building that was held for sale.

The increases in Operating Income before Depreciation and Amortization and Operating Income for the three and six months are due primarily to lower costs of revenues and selling, general and administrative expenses, higher Advertising revenues and the net benefit of restructuring reversals and the gains on sale of consolidated businesses, partially offset by lower Subscription revenues. For the six months ended June 30, 2005, the increase was also partially offset by the $24 million noncash goodwill impairment charge described above. Operating Income also improved due to lower depreciation expense reflecting a decline in network assets as the result of membership declines.

Cable. Revenues, Operating Income before Depreciation and Amortization and Operating Income of the Cable segment for the three and six months ended June 30, 2005 and 2004 are as follows:

	Three Months Ended			Six Months Ended		
	6/30/05	6/30/04	% Change	6/30/05	6/30/04	% Change
		(millions)			(millions)	
Revenues:						
Subscription	$ 2,221	$1,990	12%	$ 4,348	$ 3,924	11%
Advertising	136	126	8%	255	235	9%
Total revenues	2,357	2,116	11%	4,603	4,159	11%
Costs of revenues [a]	(1,067)	(935)	14%	(2,069)	(1,840)	12%
Selling, general and administrative [a]	(377)	(364)	4%	(782)	(752)	4%
Restructuring charges	(13)	—	NM	(30)	—	NM
Operating Income before Depreciation and Amortization	900	817	10%	1,722	1,567	10%
Depreciation	(386)	(355)	9%	(762)	(701)	9%
Amortization	(19)	(19)	—	(39)	(37)	5%
Operating Income	$ 495	$ 443	12%	$ 921	$ 829	11%

[a] Costs of revenues and selling, general and administrative expenses exclude depreciation.

For the three and six months ended June 30, 2005, Subscription revenues increased due to the continued penetration of advanced services (primarily high-speed data, Digital Phone and advanced digital video services) and video rate increases. High-speed data subscription revenues increased to $525 million for the three months ended June 30, 2005 from $433 million for the three months ended June 30, 2004 and to $1.018 billion for the six months ended June 30, 2005 from $847 million for the six months ended June 30, 2004. Digital Phone revenues increased to $57 million for the three months ended June 30, 2005 from $3 million for the three months ended June 30, 2004 and to $89 million for the six months ended June 30, 2005 from $5 million for the six months ended June 30, 2004. The

Company anticipates that revenues for the remainder of 2005 will be impacted positively by revenues associated with its high-speed data and Digital Phone services.

TWC Inc. subscriber counts include all billable subscribers for each level of service received. Basic cable subscribers include all subscribers who receive basic video cable service. Digital video subscribers reflect all subscribers who receive any level of video service received via digital technology. High-speed data subscribers include all subscribers who receive TWC Inc.'s Road Runner Internet service, as well as other Internet services offered by TWC Inc. Digital Phone subscribers includes all subscribers who receive telephony service. At June 30, 2005, as compared to June 30, 2004, basic cable subscribers were down slightly (i.e. 4,000 subscribers) and totaled 10.905 million (including 1.589 million subscribers of unconsolidated investees, which are managed by TWC Inc.), digital video subscribers increased by 10% to 5.053 million (including 768,000 subscribers of unconsolidated investees, which are managed by TWC Inc.), residential high-speed data subscribers increased by 22% to 4.323 million (including 623,000 subscribers of unconsolidated investees, which are managed by TWC Inc.) and commercial high-speed data subscribers increased by 30% to 193,000 (including 25,000 subscribers of unconsolidated investees, which are managed by TWC Inc.). Additionally, Digital Phone subscribers totaled 614,000 (including 96,000 subscribers of unconsolidated investees, which are managed by TWC Inc.).

The increase in Advertising revenues for the three and six months ended June 30, 2005 is due to growth of national and local advertising, including an increase in both the rates and volume of advertising spots sold.

For the three and six months ended June 30, 2005, costs of revenues increased 14% and 12%, respectively, and, as a percentage of revenues, were 45% for both the three and six months ended June 30, 2005 compared to 44% for both the three and six months ended June 30, 2004. The increase in costs of revenues is primarily related to increases in video programming costs, higher employee costs and an increase in telephony service costs. For the three and six months ended June 30, 2005, video programming costs increased 14% to $532 million and 13% to $1.042 billion, respectively, due primarily to contractual rate increases across TWC Inc.'s programming line-up, including a $14 million charge related to the resolution of contractual terms with a program vendor. Programming costs in the first six months of 2004 also benefited from the receipt of non-recurring programming credits. Video programming costs are expected to increase during the remainder of 2005, and the full year rate of increase is expected to be at a rate similar to that experienced during the first half of 2005, reflecting the expansion of service offerings and contractual rate increases across TWC Inc.'s programming line-up. Employee costs increased primarily due to merit increases and higher headcount resulting from the roll-out of advanced services. Telephony service costs increased due to the growth of Digital Phone subscribers. Despite the growth in high-speed data subscribers, as discussed above, high-speed data connectivity costs declined 23% for both the three and six months of 2005, as connectivity costs have continued to decrease on a per subscriber basis due to industry-wide cost declines.

The increase in selling, general and administrative expenses is primarily the result of higher employee and administrative costs due to merit increases and higher headcount resulting from the roll-out of advanced services. This was partially offset by $7 million and $34 million of costs for the three and six months ended June 30, 2004, respectively, incurred in connection with the previously discussed Urban Cable dispute. The six months ended June 30, 2005 also include $9 million in reserves related to legal matters.

As previously discussed under "Significant Transactions and Other Items Affecting Comparability," the results for the three and six months ended June 30, 2005 include approximately $13 million and $30 million, respectively, of restructuring costs, primarily associated with the early retirement of certain senior executives. These changes are part of TWC Inc.'s broader plans to simplify its organization and enhance its customer focus. TWC Inc. is in the process of executing this reorganization and expects to incur additional costs associated with this reorganization as it is implemented throughout 2005.

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Operating Income before Depreciation and Amortization for the three and six months increased principally as a result of revenue gains (particularly high margin high-speed data revenues), offset in part by higher costs of revenues, selling, general and administrative expenses and the restructuring charges discussed above.

Operating Income increased due primarily to the increase in Operating Income before Depreciation and Amortization described above, offset in part by an increase in depreciation expense. Depreciation expense increased $31 million and $61 million for the three and six months, respectively, due primarily to the increased spending on customer premise equipment in recent years, which generally has a significantly shorter useful life compared to the mix of assets previously purchased.

Filmed Entertainment. Revenues, Operating Income before Depreciation and Amortization and Operating Income of the Filmed Entertainment segment for the three and six months ended June 30, 2005 and 2004 are as follows:

	Three Months Ended			Six Months Ended		
	6/30/05	6/30/04	% Change	6/30/05	6/30/04	% Change
		(millions)			(millions)	
Revenues:						
Advertising	$ 2	$ 2	—	$ 5	$ 5	—
Content	2,585	3,043	(15%)	5,536	5,962	(7%)
Other	49	46	7%	109	111	(2%)
Total revenues	2,636	3,091	(15%)	5,650	6,078	(7%)
Costs of revenues [a]	(2,033)	(2,313)	(12%)	(4,259)	(4,521)	(6%)
Selling, general and administrative [a]	(384)	(361)	6%	(762)	(728)	5%
Operating Income before Depreciation and Amortization	219	417	(47%)	629	829	(24%)
Depreciation	(30)	(25)	20%	(60)	(49)	22%
Amortization	(52)	(53)	(2%)	(104)	(106)	(2%)
Operating Income	$ 137	$ 339	(60%)	$ 465	$ 674	(31%)

[a] Costs of revenues and selling, general and administrative expenses exclude depreciation.

For the three months ended June 30, 2005, Content revenues decreased primarily as a result of a decline in theatrical product (from $2.136 billion to $1.560 billion), partially offset by an increase in television product (from $781 million to $896 million). For the six months ended June 30, 2005, Content revenues decreased as a result of declines in both theatrical product (from $3.695 billion to $3.415 billion) and television product (from $2.010 billion to $1.887 billion). Content revenues also include consumer products and other revenues, which increased $3 million to $129 million for the three months ended June 30, 2005, and decreased $23 million to $234 million for the six months ended June 30, 2005.

For the three months ended June 30, 2005, revenue from theatrical product decreased due to declines in worldwide home video sales and worldwide theatrical film revenues of $357 million and $276 million, respectively, partially offset by a $57 million increase in television license fees. For the six months ended June 30, 2005, revenue from theatrical product decreased due to declines in worldwide theatrical film revenues and worldwide home video sales of $416 million and $44 million, respectively, partially offset by a $180 million increase in television license fees.

The decline in home video sales from theatrical product for the three and six months ended June 30, 2005, was attributable to difficult comparisons to the prior year, which included the key home video releases of *The Lord of the Rings: The Return of the King, The Matrix Revolutions* and *The Last Samurai.* For the six months, this was partially offset by the first quarter 2005 home video release of *Harry Potter and the Prisoner of Azkaban* in most international territories and the domestic home video release of *Troy* . The decrease in worldwide theatrical film revenues for the three and six months ended June 30, 2005 was attributable to difficult comparisons to the prior year,

which included international overages associated with *The Lord of the Rings: The Return of the King* and the success of *Troy, Harry Potter and the Prisoner of Azkaban* , and *The Last Samurai* in the first six months of 2004. For the three and six months ended June 30, 2005, the increase in theatrical product revenue from television distribution related to the timing and quantity of various international availabilities, including a greater number of significant titles in 2005.

The increase in television product revenues for the three months ended June 30, 2005 is attributable to a $128 million increase in home video sales, partially offset by a $13 million decline in license fees. The decrease in television product revenues for the six months ended June 30, 2005 is attributable to a $295 million decline in license fees, partially offset by a $172 million increase in home video sales.

The decrease in worldwide license fees from television product for the three and six months ended June 30, 2005 was primarily attributable to difficult comparisons to 2004, which included higher revenues associated with the final broadcast seasons of *Friends* and *The Drew Carey Show* . The first six months of 2004 also included the third-cycle syndication continuance license arrangements for *Seinfeld* . The growth in home video sales of television product for the three and six months was primarily attributable to an increased number of titles released in this format, with the most significant contributions from *Seinfeld.*

The decrease in costs of revenues resulted primarily from lower film costs ($1.187 billion and $2.595 billion for the three and six months ended June 30, 2005, respectively, compared to $1.524 billion and $3.052 billion for the three and six months ended June 30, 2004, respectively) primarily resulting from the quantity and mix of product released. Included in film costs are theatrical valuation adjustments, which declined from $88 million in 2004 to $57 million in 2005 for the three months and from $144 million in 2004 to $95 million in 2005 for the six months. Advertising and print costs also decreased for the three and six months due to the quantity and mix of films released. These decreases were offset partially by higher home video costs related to increased volume and an increase in the ratio of television product, which has higher manufacturing costs and freight costs. Costs of revenues as a percentage of revenues increased to 77% for the three months ended June 30, 2005 from 75% for the three months ended June 30, 2004, and to 75% for the six months ended June 30, 2005 compared to 74% for the six months ended June 30, 2004 due to the quantity and mix of product released.

Selling, general and administrative expenses increased for the three and six months ended June 30, 2005, primarily due to higher employee costs related to additional headcount and salary increases. The increase for the six months was partially offset by a decline related to the distribution fees associated with the off-network television syndication of *Seinfeld* in the prior year.

Operating Income before Depreciation and Amortization and Operating Income for the three and six months ended June 30, 2005 decreased due to lower revenues and increased selling, general and administrative expenses, which were partially offset by the decrease in costs of revenues, as discussed above.

The Company anticipates that both Operating Income before Depreciation and Amortization and Operating Income will continue to decline in the third quarter of 2005 as a result of difficult comparisons to 2004 but will return to growth in the fourth quarter of 2005 compared to the same periods of 2004.

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Networks. Revenues, Operating Income before Depreciation and Amortization and Operating Income of the Networks segment for the three and six months ended June 30, 2005 and 2004 are as follows:

	Three Months Ended			Six Months Ended		
	6/30/05	6/30/04	% Change	6/30/05	6/30/04	% Change
		(millions)			(millions)	
Revenues:						
Subscription	$ 1,374	$ 1,303	5%	$ 2,716	$ 2,537	7%
Advertising	861	817	5%	1,543	1,451	6%
Content	215	224	(4%)	468	508	(8%)
Other	39	34	15%	47	77	(39%)
Total revenues	2,489	2,378	5%	4,774	4,573	4%
Costs of revenues [a]	(1,366)	(1,282)	7%	(2,452)	(2,417)	1%
Selling, general and administrative [a]	(488)	(435)	12%	(900)	(753)	20%
Loss on sale of assets	—	—	—	—	(7)	NM
Operating Income before Depreciation and Amortization	635	661	(4%)	1,422	1,396	2%
Depreciation	(57)	(51)	12%	(112)	(100)	12%
Amortization	(8)	(8)	—	(12)	(11)	9%
Operating Income	$ 570	$ 602	(5%)	$ 1,298	$ 1,285	1%

[a] Costs of revenues and selling, general and administrative expenses exclude depreciation.

The increase in Subscription revenues for the three and six months ended June 30, 2005 was due primarily to higher subscription rates at Turner and HBO and, to a lesser extent, an increase in the number of subscribers at Turner and HBO. The three and six months 2005 results also include a $22 million benefit from the resolution of certain contractual agreements at Turner and the three and six months 2004 results included a benefit of approximately $50 million from the resolution of certain contractual agreements at Turner and HBO.

The increase in Advertising revenues for the three and six months ended June 30, 2005 was driven primarily by higher CPMs and sellouts at Turner's entertainment networks, partially offset by a decline at The WB Network as a result of lower ratings.

The decrease in Content revenues for the three and six months ended June 30, 2005 was primarily due to lower licensing revenues at HBO associated with fewer episodes of *Everybody Loves Raymond*, partially offset by higher ancillary sales of HBO's original programming. In addition, for the six months ended June 30, 2005, Content revenues declined due to the absence of the winter sports teams at Turner, which were sold on March 31, 2004 and contributed $22 million of Content revenues in 2004, and a 2004 benefit associated with favorable home video returns experience.

For the three months ended June 30, 2005, Other revenues increased primarily related to higher ticket and event revenue at the Atlanta Braves. For the six months ended June 30, 2005, the decline in Other revenues was primarily attributable to the sale of the winter sports teams in the first quarter of 2004, which contributed $39 million of Other revenues in the first quarter of 2004, partially offset by the increase in revenues primarily related to the Atlanta Braves, as previously discussed.

Costs of revenues increased 7% for the three months ended June 30, 2005 and, as a percentage of revenues, was 55% and 54% for the three months ended June 30, 2005 and June 30, 2004, respectively. Costs of revenues increased 1% for the six months ended June 30, 2005 and, as a percentage of revenues, was 51% and 53% for the six months ended June 30, 2005 and June 30, 2004, respectively. For the three and six months ended June 30, 2005, the increase in costs of revenues was primarily attributable to an increase in programming costs, partially offset by lower costs related to the absence of the winter sports teams due to their sale in March 2004. Programming costs increased to $1.012 billion for the three months ended June 30, 2005 as compared to $967 million for the three

months ended June 30, 2004 and to $1.773 billion for the six months ended June 30, 2005 from $1.708 billion for the six months ended June 30, 2004. The increase in programming expenses for the three and six months is primarily due to an increase in original series, sports rights and news costs at Turner, partially offset by lower theatrical film and original programming costs at HBO.

Selling, general and administrative expenses increased for the three and six months ended June 30, 2005 primarily due to higher marketing and promotional expenses to support new programming primarily at Turner and higher general and administrative costs at Turner, partially offset by a decline in marketing and promotional expenses at The WB Network. In addition, the increase in selling, general and administrative expenses for the three and six months reflects the reversal of bankruptcy related bad debt reserves of $14 million and $75 million for the three and six months ended June 30, 2004, respectively, at Turner and HBO on receivables from Adelphia.

As discussed in "Significant Transactions and Other Items Affecting Comparability," the six months 2004 results include an approximate $7 million loss on the sale of the winter sports teams.

Operating Income before Depreciation and Amortization and Operating Income declined for the three months ended June 30, 2005 primarily due to higher costs of revenues and selling, general and administrative expenses, partially offset by an increase in revenues, as discussed above. Operating Income before Depreciation and Amortization and Operating Income increased for the six months ended June 30, 2005 primarily due to an increase in revenues, partially offset by higher selling, general and administrative expenses and costs of revenues, as described above.

The Company anticipates that the rate of growth in both Operating Income before Depreciation and Amortization and Operating Income during the remainder of 2005 will be higher than that experienced in the first half of 2005. The growth for the first half of 2005 was negatively impacted, in part, by an approximate $28 million lower net benefit from the favorable resolution of certain contractual agreements as well as the 2004 reversal of $75 million of Adelphia bad debt reserves.

Publishing. Revenues, Operating Income before Depreciation and Amortization and Operating Income of the Publishing segment for the three and six months ended June 30, 2005 and 2004 are as follows:

	Three Months Ended			Six Months Ended		
	6/30/05	6/30/04	% Change	6/30/05	6/30/04	% Change
		(millions)			(millions)	
Revenues:						
Subscription	$ 421	$ 423	—	$ 802	$ 777	3%
Advertising	742	716	4%	1,313	1,237	6%
Content	169	126	34%	297	235	26%
Other	170	178	(4%)	330	341	(3%)
Total revenues	1,502	1,443	4%	2,742	2,590	6%
Costs of revenues [a]	(608)	(556)	9%	(1,151)	(1,056)	9%
Selling, general and administrative [a]	(546)	(530)	3%	(1,076)	(1,015)	6%
Gain on sale of assets	—	—	—	8	8	—
Operating Income before Depreciation and Amortization	348	357	(3%)	523	527	(1%)
Depreciation	(31)	(33)	(6%)	(66)	(63)	5%
Amortization	(26)	(36)	(28%)	(53)	(74)	(28%)
Operating Income	$ 291	$ 288	1%	$ 404	$ 390	4%

[a] Costs of revenues and selling, general and administrative expenses exclude depreciation.

Subscription revenues were essentially flat for the three months ended June 30, 2005. For the six months ended June 30, 2005, Subscription revenues increased primarily due to higher newsstand sales of *People* and the U.K. magazine launches, *Pick Me Up* and *Nuts* .

For the three and six months ended June 30, 2005, Advertising revenues increased due to contributions from new magazine launches, the acquisition of the remaining interest in the publisher of *Essence* , and growth at *In Style* , *Real Simple* , and *Southern Living* , offset partly by lower Advertising revenues from *Time* , *Sports Illustrated* and *Fortune* . In addition, the six months ended June 30, 2005 benefited from an increase in Advertising revenues from *People* in the first quarter of 2005. The Company anticipates that the rate of growth in Advertising revenues will decline in the second half of 2005 as compared to the rate of growth experienced in the first half of 2005 due to soft market conditions.

Content revenues increased for the three and six months ended June 30, 2005 due to a number of best-selling titles at Time Warner Book Group.

Costs of revenues increased 9% for the three months ended June 30, 2005 and, as a percentage of revenues were 40% and 39% for the three months ended June 30, 2005 and 2004, respectively. Costs of revenues increased 8% for the six months ended June 30, 2005 and, as a percentage of revenues were 42% and 41% for the six months ended June 30, 2005 and 2004, respectively. Costs of revenues for the magazine publishing business include manufacturing (paper, printing and distribution) and editorial-related costs, which together increased 9% to $483 million and 9% to $911 million for the three and six months ended June 30, 2005, respectively. The increase for the three and six months was primarily due to magazine launch-related costs, the acquisition of the remaining interest in the publisher of *Essence* , increases in paper prices as well as costs related to several titles at Time Warner Book Group.

Selling, general and administrative expenses increased 3% and 6% for the three and six months ended June 30, 2005, respectively, primarily due to magazine launch-related costs, the acquisition of the remaining interest in the publisher of *Essence* , and higher selling expenses related to the success of several titles at Time Warner Book Group.

As previously discussed in "Significant Transactions and Other Items Affecting Comparability," the results for the six months ended June 30, 2005 reflect an $8 million gain related to the collection of a loan made in conjunction with the Company's 2003 sale of Time Life, which was previously fully reserved due to concerns about recoverability. The results for the six months ended June 30, 2004 reflect an $8 million gain on the sale of a building.

For the three and six months ended June 30, 2005, Operating Income before Depreciation and Amortization decreased, reflecting higher costs of revenues and selling, general and administrative expenses, including $9 million and $17 million, respectively, of higher start-up losses on magazine launches, partially offset by an increase in revenues.

Operating Income for the three and six months ended June 30, 2005 improved slightly, benefiting from a decline in amortization expense as a result of certain short-lived intangibles, such as customer lists, becoming fully amortized, partially offset by the decline in Operating Income before Depreciation and Amortization discussed above.

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Corporate. Operating Loss before Depreciation and Amortization and Operating Loss of the Corporate segment for the three and six months ended June 30, 2005 and 2004 are as follows:

	Three Months Ended			Six Months Ended		
	6/30/05	6/30/04	% Change	6/30/05	6/30/04	% Change
		(millions)			(millions)	
Legal reserves related to securities litigation.	$(3,000)	$ —	NM	$(3,000)	$ —	NM
Selling, general and administrative [a]	(104)	(112)	(7%)	(206)	(276)	(25%)
Operating Loss before Depreciation and Amortization	(3,104)	(112)	NM	(3,206)	(276)	NM
Depreciation	(10)	(8)	25%	(19)	(24)	(21%)
Operating Loss	$(3,114)	$(120)	NM	$(3,225)	$(300)	NM

[a] Selling, general and administrative expenses exclude depreciation.

As previously discussed, the three and six months ended June 30, 2005 results include $3 billion in legal reserves related to the securities litigation.

Besides normal corporate expenses, included in selling, general and administrative expenses are legal and other professional fees related to the SEC and DOJ investigations into the Company's accounting and disclosure practices and the defense of various securities litigation matters ($3 million and $9 million for the three and six months ended June 30, 2005, respectively, compared to $6 million and $14 million for the three and six months ended June 30, 2004, respectively). Costs are expected to continue to be incurred in future periods.

Also included in selling, general and administrative expenses for the three and six months ended June 30, 2004 are charges of $14 million and $67 million, respectively, associated with the relocation of the Company's corporate headquarters. Of the $67 million charge, approximately $26 million relates to a noncash write-off of a fair value lease adjustment, which was established in purchase accounting at the time of the merger of America Online and Time Warner Inc., now known as Historic TW Inc. ("Historic TW"). In the first quarter of 2005, the Company reversed approximately $3 million of this charge, which was no longer required due to changes in estimates.

Excluding the items discussed above, Operating Loss before Depreciation and Amortization and Operating Loss increased slightly for the three and six months ended June 30, 2005, due primarily to higher employee and general and administrative costs, partially offset in the six months by lower severance costs.

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FINANCIAL CONDITION AND LIQUIDITY

Current Financial Condition

At June 30, 2005, Time Warner had $20.549 billion of debt, $7.592 billion of cash and equivalents (net debt of $12.957 billion, defined as total debt less cash and equivalents) and $62.620 billion of shareholders' equity, including the conversion of $1.5 billion of mandatorily convertible preferred stock to common stock in the first quarter of 2005, compared to $22.375 billion of debt, $6.139 billion of cash and equivalents (net debt of $16.236 billion) and $60.771 billion of shareholders' equity at December 31, 2004.

The following table shows the significant items contributing to the decrease in net debt from December 31, 2004 to June 30, 2005 (millions):

Net debt at December 31, 2004	$16,236
Free Cash Flow [a][b]	(1,959)
Proceeds from sale of the Company's remaining interest in Google	(940)
Proceeds from the Company's option in WMG	(138)
All other, net	(242)
Net debt at June 30, 2005 [c]	$12,957

(a) See Free Cash Flow discussion under "Cash Flows" below for a reconciliation of the Company's Free Cash Flow to cash provided by operations ($3.463 billion for the six months ended June 30, 2005).
(b) Free Cash Flow includes a $300 million payment made related to the government investigations.
(c) Included in the net debt balance is approximately $277 million, which represents the net unamortized fair value adjustment recognized as a result of the merger of America Online and Historic TW.

As previously announced, the Company will start paying a regular quarterly cash dividend of $0.05 per share on its common stock, beginning in the third quarter of this year.

As noted in "Other Recent Developments," the Company has accrued $3 billion in legal reserves related to the securities litigation.

As noted in "Other Recent Developments," on July 29, 2005, the Company's Board of Directors authorized a common stock repurchase program that allows Time Warner to repurchase, from time to time, up to $5 billion of common stock over a two-year period. Purchases for the stock repurchase program may be made from time to time on the open market and in privately negotiated transactions. Size and timing of these purchases will be based on a number of factors including price and business and market conditions.

In April 2005, the Company entered into an agreement to jointly acquire substantially all of the assets of Adelphia with Comcast for a combination of cash and stock of TWC Inc. TWC Inc. also has agreed to redeem Comcast's interests in TWC Inc. and TWE following the Adelphia acquisition. Upon closing, these transactions will impact the Company's financial condition and liquidity. For additional details, please see "Other Recent Developments."

As discussed in more detail below, management believes that Time Warner's cash provided by operations, cash and equivalents, borrowing capacity under its committed credit facilities and availability under its commercial paper programs are sufficient to fund its capital and liquidity needs for the foreseeable future, including the quarterly dividend payments, the common stock repurchase program, the proposed acquisition of Adelphia, the redemption of Comcast's interests in TWC Inc. and TWE and payments to be made in resolving pending securities litigation.

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Cash Flows

Cash and equivalents increased by $1.453 billion and $3.186 billion for the six months ended June 30, 2005 and 2004, respectively. Components of these changes are discussed in more detail in the pages that follow.

Operating Activities

Sources of cash provided by operations are as follows:

	Six Months Ended	
	6/30/05	6/30/04
	(millions)	
Operating Income before Depreciation and Amortization	$ 2,159	$ 5,042
Legal reserves related to securities litigation	3,000	—
Noncash asset impairments	24	10
Net interest payments [a]	(709)	(805)
Net income taxes paid [b]	(261)	(267)
Adjustments relating to discontinued operations [c]	(11)	120
Merger and restructuring payments [d]	(79)	(74)
Cash paid related to the government investigations	(300)	—
All other, net, including working capital changes	(360)	(720)
Cash provided by operations	$ 3,463	$ 3,306

(a) Includes interest income received of $99 million and $42 million in 2005 and 2004, respectively.
(b) Includes income tax refunds received of $47 million and $25 million in 2005 and 2004, respectively.
(c) Includes net income from discontinued operations of $110 million in 2004. Amounts also include working capital related adjustments associated with discontinued operations of $(11) million and $10 million in 2005 and 2004, respectively.
(d) Includes payments for restructuring and merger related costs, as well as payment for certain other merger-related liabilities.

Cash provided by operations increased to $3.463 billion in 2005 compared to $3.306 billion in 2004. The increase in cash provided by operations is related primarily to an increase in Operating Income before Depreciation and Amortization (excluding the legal reserves related to securities litigation, which have not been paid), higher contributions from working capital changes and lower interest payments. These increases were partially offset by cash paid related to the settlement of the SEC investigation in 2005 and a reduction in cash relating to discontinued operations. The changes in components of working capital are subject to wide fluctuations based on the timing of cash transactions related to production schedules, the acquisition of programming, collection of accounts receivable and similar items. The change in working capital between periods primarily reflects higher cash collections on receivables, partially offset by the timing of accounts payable and accrual payments.

TIME WARNER INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION — (Continued)

Investing Activities

Sources of cash provided (used) by investing activities are as follows:

	Six Months Ended	
	6/30/05	6/30/04
	(millions)	
Investment and acquisitions, net of cash acquired:		
Essence	$ (128)	$ —
Consolidation of AOLA [a]	—	33
Synapse	—	(120)
All other, principally funding of joint ventures	(130)	(126)
Capital expenditures and product development costs	(1,448)	(1,341)
Proceeds from the sale of other available-for-sale securities	36	40
Proceeds from the sale of the Company's remaining interest in Google	940	—
Net proceeds from the sale of WMG [b]	—	2,501
Proceeds from the sale of the WMG Option	138	—
All other investment and asset sale proceeds	230	131
Cash provided (used) by investing activities	$ (362)	$ 1,118

(a) Represents cash balance of AOLA upon consolidation.
(b) Represents $2.6 billion of proceeds received from the sale of WMG less certain working capital adjustments.

Cash used by investing activities was $362 million in 2005 compared to cash provided by investing activities of $1.118 billion in 2004. The change in cash provided (used) by investing activities is primarily due to the absence of proceeds from the 2004 sale of WMG and an increase in capital expenditures and product development costs, offset by the proceeds from the sale of the Company's remaining interest in Google, the proceeds received upon the sale of its WMG option and higher other investment proceeds.

Financing Activities

Sources of cash used by financing activities are as follows:

	Six Months Ended	
	6/30/05	6/30/04
	(millions)	
Borrowings	$ 1,203	$ 1,489
Debt repayments	(3,037)	(2,865)
Proceeds from exercise of stock options	158	224
Principal payments on capital leases	(67)	(102)
Other financing activities	95	16
Cash used by financing activities	$ (1,648)	$ (1,238)

Cash used by financing activities was $1.648 billion in 2005 compared to $1.238 billion in 2004. The increase in cash used by financing activities was due principally to higher incremental debt repayments in 2005, and lower proceeds from the exercise of stock options, partially offset by lower principal payments on capital leases.

TIME WARNER INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION — (Continued)

Free Cash Flow

Free Cash Flow is cash provided by operations (as defined by U.S. generally accepted accounting principles) plus payments related to securities litigation less cash provided by discontinued operations, capital expenditures and product development costs, principal payments on capital leases, and partnership distributions, if any. Free Cash Flow is considered to be an important indicator of the Company's liquidity, including its ability to reduce net debt, make strategic investments, pay dividends to common shareholders and repurchase stock. A limitation of this measure, however, is that it does not reflect securities litigation payments, which reduce liquidity. Free Cash Flow should be considered in addition to, and not as a substitute for, the Company's various cash flow measures (e.g., cash provided by operations) reported in accordance with U.S. generally accepted accounting principles.

The following table provides a reconciliation from the Company's cash provided by operations to Free Cash Flow.

	Six Months Ended	
	6/30/05	6/30/04
	(millions)	
Cash provided by operations	$ 3,463	$ 3,306
Capital expenditures and product development costs	(1,448)	(1,341)
Principal payments on capital leases	(67)	(102)
Free Cash Flow including discontinued operations	1,948	1,863
Less: Free Cash Flow from discontinued operations	11	(120)
Free Cash Flow	$ 1,959	$ 1,743

Capital Expenditures and Product Development Costs

Time Warner's total capital expenditures and product development costs were $1.448 billion for the six months ended June 30, 2005 compared to $1.341 billion for the six months ended June 30, 2004. Capital expenditures and product development costs principally relate to the Company's Cable segment, which had capital expenditures of $899 million for the six months ended June 30, 2005 as compared to $718 million for the six months ended June 30, 2004.

The Cable segment's capital expenditures comprise the following categories:

	Six Months Ended	
	6/30/05	6/30/04
	(millions)	
Cable Segment Capital Expenditures		
Customer premise equipment	$ 431	$ 348
Scaleable infrastructure	118	66
Line extensions	130	105
Upgrade/rebuild	69	54
Support capital	151	145
Total capital expenditures	$ 899	$ 718

TWC Inc. incurs expenditures associated with the construction and maintenance of its cable systems. Costs associated with the construction of the cable transmission and distribution facilities and new cable service installations are capitalized. TWC Inc. generally capitalizes expenditures for tangible fixed assets having a useful life of greater than one year. Capitalized costs include direct material, direct labor, overhead and, in some cases, interest. Sales and marketing costs, as well as the costs of repairing or maintaining existing fixed assets, are expensed as incurred. Types of capitalized expenditures include: customer premise equipment, scaleable infrastructure, line extensions, plant upgrades and rebuilds and support capital. With respect to customer premise equipment, which includes converters and cable modems, TWC Inc. capitalizes direct installation charges only upon the initial deployment of these assets. All costs incurred in subsequent disconnects and reconnects are expensed as

incurred. Depreciation on these assets is provided generally using the straight-line method over their estimated useful lives. For converters and modems, useful life is generally 3 to 4 years and for plant upgrades, useful life is up to 16 years.

Backlog

Backlog represents the amount of future revenue not yet recorded from cash contracts for the licensing of theatrical and television product for pay cable, basic cable, network and syndicated television exhibition. Backlog was approximately $4.9 billion and $3.7 billion at June 30, 2005 and December 31, 2004, respectively. Included in these amounts is licensing of film product from the Filmed Entertainment segment to the Networks segment of $737 million and $514 million at June 30, 2005 and December 31, 2004, respectively.

RISK FACTORS AND CAUTION CONCERNING FORWARD-LOOKING STATEMENTS

Risk Factors

If the events discussed in these risk factors occur, the Company's business, financial condition, results of operations or cash flows could be materially adversely affected. In such case, the market price of the Company's common stock could decline.

The Company's America Online business continues to face substantial competition in maintaining and growing its subscriber base, in developing compelling products and services, and in increasing revenues from sources other than fees for the AOL service, and if America Online is unable to meet its competitive challenges, the Company's financial results could be adversely affected. Historically, America Online's primary product offering has been an online subscription service that includes a component of telephone "dial-up" Internet access. This product, offered under a variety of different terms and price plans, generates the substantial majority of America Online's revenues. During the last several years, the online services industry has been changing from one in which the only way for a household to access the Internet was through telephone "dial-up" Internet access provided by Internet service providers to one in which households can access the Internet through a variety of connection methods, such as cable modems, DSL or wireless connections offered by a number of different providers, including Internet service providers, cable companies and telephone and other telecommunications companies. As a result, significant price and service competition for Internet access exists. Furthermore, unlike some of its competitors, AOL does not own or control access to the "last mile" of connectivity to the consumer that would enable it to easily offer high-speed access to subscribers. Therefore, in order for America Online to provide high-speed access, it generally must secure access from the providers that control the last mile of infrastructure. In some cases, those companies provide products competitive to AOL. To date, America Online has had limited success in reaching agreements with companies for high-speed access and implementing such agreements, and there can be no assurance that it will be successful in doing so in the future. As a result primarily of these factors, America Online has experienced declines in subscribers throughout 2003, 2004 and to date in 2005, and declines are expected to continue into the foreseeable future. Declines in subscribers have resulted in decreased Subscription revenues and have had an adverse impact on Advertising revenues and profitability.

Since late 2002, America Online's strategy has focused on improving and expanding its Internet products and services, including enhancement of or upgrade to the content and features provided through the flagship AOL service, and introducing premium services, as well as reducing costs. In late 2004, America Online reorganized its operating structure and expanded its strategy from attracting and retaining subscribers, especially those who access the Internet via a high-speed connection, to focus also on increasing the value of and maintaining or increasing the size of its U.S. and worldwide audience to the America Online network of sites, content and services. America Online's strategy continues to include the development and offering of additional products and services to existing subscribers, as well as to Internet users in general. This strategy includes the potentially conflicting goals of maintaining and improving a subscription business while increasing the audience for its Internet properties by making generally available to Internet users without charge much of the content, features and tools that were previously only available to subscribers. The success of America Online's strategy will depend on a number of

factors, including competition, the rate of decline in the number of subscribers to the AOL service, the ability to generate more activity on, and to attract more people to, its network of sites, content and services, the growth of the online advertising business, the ability to secure and maintain agreements with third parties for advertising and for distribution of America Online products and services, accurate forecasting of consumer preferences, and the ability to anticipate and keep up with technological developments. If America Online is unsuccessful, Time Warner's financial condition, results of operations and cash flows could be adversely affected.

With respect to telephone "dial-up" Internet access, America Online faces significant competition from other Internet service providers, particularly those with low-priced offerings. To meet this competition, America Online plans to continue to provide certain content, features and tools that will only be available to its subscribers. America Online also operates lower-priced Internet services to compete with the low-price ISPs. It is too early to determine whether these services will compete successfully.

America Online expects to continue to experience declines in the number of subscribers. Each year, a significant portion of AOL members cancel their membership or are terminated by America Online either for non-payment of account charges or violation of one of the terms of service that apply to members (for example, sending spam e-mails or violating community guidelines in chat rooms). In addition, maintaining and growing the subscriber base is difficult because the larger the subscriber base, the greater the number of new subscribers required to offset those subscribers who cancel or are terminated. In 2003 and continuing to the present, America Online did not register new members in numbers sufficient to replace the subscribers who canceled or were terminated. One important reason for the declining number of subscribers has been that registrations have been declining in response to marketing campaigns and various other subscriber acquisition methods; continuing decreases in new registrations could adversely affect the rate of decline in the total number of subscribers. Broadband DSL access providers have recently announced conditional offers that include price reductions that could further adversely affect the rate of decline of America Online subscribers. As part of its strategy announced in late 2004 and in connection with the upcoming official re-launch of the AOL.com Website as a portal, America Online during 2005 has been moving certain proprietary content, features and tools to the Internet, allowing all Internet users, not just members of the AOL service, to access such content, features and tools without charge. This strategy could result in further declines in the number of subscribers and may result in subscribers canceling their subscriptions at a faster rate than in the past. In addition, America Online is seeking to enter into agreements with high-speed access distributors, such as cable companies and telecommunications companies, to bundle the AOL service along with broadband access. It is uncertain whether these agreements will result in America Online attracting or retaining subscribers. Furthermore, even if this strategy is successful in attracting or retaining subscribers, such agreements may be less profitable. America Online continues to develop, test, change, market and implement price plans, service offerings and payment methods to identify effective ways to attract and retain members.

America Online will need to develop other sources of revenues to offset the lower revenues from service fees resulting from the decline in subscribers and migration of existing subscribers to lower-priced plans. For the foreseeable future, Advertising revenues will be an increasingly important source of revenues for America Online. To date, increases in Advertising revenues have not been high enough to offset the losses in revenues resulting from the decline in subscribers and migration of existing subscribers to lower-priced plans. Advertising revenues have been adversely impacted by the loss in AOL subscribers because subscribers generate more usage than non-subscriber Internet visitors to the America Online network of sites, services and content. America Online's Advertising revenues have improved in large part due to America Online's acquisition of Advertising.com, which provides strategic direct-response and brand marketing services to online advertisers, and the paid-search relationship America Online has with Google, including a more recent arrangement with AOL Europe. Increased competition for advertising inventory on third-party Internet sites could adversely impact Advertising.com's continued growth.

America Online's ability to increase Advertising revenues depends in part on its ability to maintain and increase the size and value of its audience using the America Online network of sites, content and services. This audience currently includes AOL members, as well as Internet users accessing America Online's network of sites,

content and services from the Internet either in the U.S. or from another country. America Online hopes to increase the size and value of its audience through the upcoming official re-launch of the AOL.com Website as a portal, which is currently scheduled to occur during the third quarter of 2005. Although America Online has had some success in attracting an audience outside of its member base at Internet sites like MapQuest and Moviefone, America Online faces significant competition from third-party Internet sites, such as Yahoo!, in attracting Internet users to its portal. It is unknown whether this strategy of increasing content available on the Web through a portal will be successful in generating increased activity by its audience or in maintaining or increasing its audience size, and thus lead to an increase in Advertising revenues.

America Online has made progress in developing alternative sources of revenue and reducing costs, and it needs to continue to do so. For example, while AOL Europe's profitability increased in 2004, the AOL European services are not the leading Internet service providers in France, Germany or the U.K. Competition includes telecommunications companies that may have greater resources and infrastructure. AOL's continued growth will depend in part on AOL Europe's increasing its Advertising revenues and profitability over the next year.

A significant portion of the increase in AOL's operating income is attributable to decreases in costs. While network service costs were cut substantially in 2004 and to date in 2005, further decreases in 2005 are expected, but in a smaller amount than in 2004. Further decreases in network service costs in 2005 are expected to result primarily from previously negotiated price decreases and from continuing decreases in demand based on the decline in the number of subscribers to the AOL service who access the service via dial-up telephone. AOL expects that reductions in network-related expenses after 2005 will not continue at the same rate as in 2005. America Online is also continuing to explore opportunities for further cost reductions. America Online must continue to identify and implement further cost reductions and develop alternative sources of revenues from advertising, digital services and other sources to continue to generate growth in operating income. Accordingly, America Online's strategy includes continuing to sell both new and existing premium digital services, such as AOL Call Alert and MusicNet, to subscribers and non-subscribers. Developing and introducing digital services requires America Online to operate outside of its core area of expertise and may subject America Online to new regulatory requirements. America Online has announced the launch of the AOL Internet Phone Service, an enhanced Voice Over Internet Protocol service for new and current AOL subscribers. This new service involves an ongoing commitment of resources, and there can be no assurance that it will be successful. Furthermore, revenues from digital premium services may be adversely affected by a reduction in prices for these services or from incorporating them into the standard AOL service offering rather than offering them separately as premium services, resulting from pressure from competitors who may offer similar services over time at lower prices or at no additional charge as part of their standard offerings. For example, a McAfee Virus Scan Online product, which AOL previously sold separately to subscribers, is now provided to AOL subscribers at no additional charge.

If the proposed Adelphia acquisition and/or related transactions with Comcast close, TWC Inc. will face certain challenges regarding the integration of the newly acquired systems into its existing managed systems. The successful integration of the acquired systems will depend primarily on TWC Inc.'s ability to manage the combined operations and integrate the acquired systems (including management information, marketing, purchasing, accounting and finance, sales, billing, customer support and product distribution infrastructure, personnel, payroll and benefits, regulatory compliance and technology systems) into its operations. The integration of these systems, including the anticipated upgrade of certain of the Adelphia acquired systems, will require significant capital expenditures and may require TWC Inc. to use financial resources it would otherwise devote to the development of new products and services and the expansion of its existing cable systems. Furthermore, these integration efforts will require substantial attention from TWC Inc.'s management and may impose significant strains on technical resources. If TWC Inc. fails to successfully integrate the acquired systems, it could have a negative impact on the performance of the Company.

In addition, when appropriate, TWC Inc. intends to selectively pursue strategic acquisitions of additional cable systems as part of its growth strategy. Time Warner cannot predict whether TWC Inc. will be successful in buying additional cable systems. However, if TWC Inc. completes a significant acquisition of additional cable

systems prior to the integration of the systems proposed to be acquired from Adelphia and Comcast, it could further complicate the integration risks associated with the integration of the systems proposed to be acquired from Adelphia and Comcast. Further, TWC Inc. might not be able to successfully integrate a significant acquisition of additional cable systems. If TWC Inc. fails to integrate successfully systems acquired from Adelphia, Comcast or from others, if TWC Inc. fails to manage its growth or if it encounters unexpected difficulties during expansion, it could have a negative impact on the performance of TWC Inc.'s systems (including the systems to be acquired in the Adelphia and Comcast transactions), as well as on the operations, business or financial results of Time Warner.

TWC Inc. also faces certain integration challenges in connection with the internal controls and procedures that have been implemented with respect to the systems to be acquired from Adelphia in the proposed transactions. Certain provisions of the Sarbanes-Oxley Act of 2002 require public companies to, among other things, implement and maintain policies and procedures pertaining to the maintenance of records that reflect the company's transactions and disposition of assets in order to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles such that, among other things, (1) transactions are accurately and fairly recorded to permit the preparation of financial statements in accordance with generally accepted accounting principles and that receipts and expenditures are made only when properly authorized and (2) unauthorized transactions involving the acquisition, use or disposition of assets that could have a material adverse effect on the company's financial statements are prevented or detected in a timely manner. Adelphia has stated that it has material weakness in its internal controls and, while Adelphia has agreed to use reasonable efforts to implement effective internal controls prior to the consummation of the proposed transactions, such policies and procedures may not be in place when TWC Inc. acquires such systems in the proposed transactions. If TWC Inc. is required to devote significant time and resources to implementing and ensuring that such controls are in place, it will further complicate the integration of the Adelphia systems with its existing managed systems.

If the proposed Adelphia acquisition and/or related transactions with Comcast close, TWC Inc. may not realize the anticipated benefits of such transactions. The proposed Adelphia acquisition and related transactions with Comcast will combine cable systems of three companies that have previously operated separately. Time Warner expects that TWC Inc. will realize cost savings and other financial and operating benefits as a result of the proposed transactions. However, Time Warner cannot predict with certainty when these cost savings and benefits will occur or the extent to which they actually will be achieved, if at all. As described above, many systems must be integrated and such integration and the anticipated upgrade of a significant portion of the systems acquired from Adelphia will require substantial attention from TWC Inc.'s management and impose strains on TWC Inc.'s technical resources. If the proposed transactions close, the diversion of management attention, the strains on technical resources and the difficulties associated with integrating the acquired systems and TWC Inc.'s existing cable systems could have a material adverse effect on Time Warner's consolidated operating results and on the value of Time Warner's common stock.

The Company's Cable segment has begun providing voice services over its cable systems and faces risks inherent to entering into a new line of business, from competition and from regulatory actions or requirements. TWC Inc.'s Digital Phone service was launched in all of its operating divisions at December 31, 2004. Coordinating the continued roll-out of a product with which it has only limited operating experience may present significant challenges. First, although TWC Inc. has launched Digital Phone service in all its divisions, it remains a relatively new technology. Furthermore, the Digital Phone service depends on interconnection and related services provided by certain third parties. TWC Inc. may encounter unforeseen difficulties as it introduces the product in new operating areas or increases the scale of its offering in areas in which it has launched. Second, TWC Inc. may face heightened customer expectations and regulatory requirements related to the reliability of voice services as compared with video and high-speed data services. TWC Inc. will need to undertake significant training of customer service representatives and technicians. If the service is not sufficiently reliable or TWC Inc. otherwise fails to meet customer expectations or regulatory requirements, the Digital Phone business could be impacted adversely. Third, the competitive landscape for voice services is expected to be intense, with TWC Inc. facing competition from other providers of VoIP services, as well as incumbent local telephone companies, cellular telephone service providers

and others, including established long distance companies. The incumbent local telephone companies have substantial capital and other resources, as well as longstanding customer relationships. Some of these companies have entered into co-marketing arrangements with direct-to-home satellite service providers to offer video services, and some have begun fiber upgrades to their networks to enable the direct delivery of video services, together with their telephone and DSL offerings. Such bundled offerings by telephone companies may compete with TWC Inc.'s offerings and could adversely impact TWC Inc. Finally, the Company expects advances in communications technology, as well as changes in the marketplace and the regulatory and legislative environment. Consequently, the Company is unable to predict the effect that ongoing or future developments in these areas might have on the Cable segment's voice business and operations. MCI, one of TWC Inc.'s two interconnect and provisioning partners in the Digital Phone business, has announced that it has agreed to be acquired by Verizon, a regional phone company that competes with TWC Inc. in some areas. It is currently not known whether, or to what extent, the proposed acquisition will have any negative impact on the Digital Phone business.

In addition, there are risks associated with TWC Inc.'s launch of voice services in the cable systems acquired in the proposed Adelphia and Comcast transactions. Some of the acquired systems may not currently have cable facilities with sufficient capacity to provide voice services using VoIP technology. In such case, TWC Inc. will be required to upgrade the facilities prior to launching any Digital Phone services. Additionally, the Digital Phone service depends upon interconnection and related services that can only be obtained by third parties, and TWC Inc. will be required to secure such services for the areas covered by the acquired systems before deploying Digital Phone service in those areas.

The voice services business may also present additional regulatory risks. It is unclear whether and to what extent traditional state and federal telephone regulations will apply to telephony services provided using VoIP technology. In addition, regulators could allow utility pole owners to charge cable operators offering voice services higher rates for pole rental than is allowed for cable and high-speed services. The FCC recently initiated a rulemaking proceeding on the regulatory approach to voice services utilizing VoIP technology, and Congress is considering enacting new laws to govern it. The FCC held in November 2004 that one particular VoIP service is not subject to traditional state public utility regulation and indicated that other providers offering similar VoIP services would not be subject to state public utility regulation if they met certain criteria. This decision has been appealed in federal court. In May 2005, the FCC adopted rules requiring VoIP providers that connect to the public switched telephone network to supply enhanced "911" (E911) capabilities as a standard feature to their subscribers. There are also court cases addressing the proper regulatory treatment for the service and rulemakings and various other proceedings underway at the state level. Therefore, the Company cannot be certain what impact regulation will have on the Digital Phone business.

Pending securities litigation or failure to fulfill the obligations under the deferred prosecution agreement with the U.S. Department of Justice or the Consent Order with the Securities and Exchange Commission could adversely affect Time Warner's operations. In connection with the resolution of the investigation by the DOJ of the Company, America Online entered into a deferred prosecution agreement with the DOJ. In accordance with the agreement, the DOJ filed a criminal complaint against America Online in December 2004 for the conduct of certain employees in connection with securities fraud by PurchasePro.com, but the DOJ will defer prosecution of AOL and will dismiss the complaint in December 2006 provided the Company fulfills its obligations under the deferred prosecution agreement, as described in the 2004 Form 10-K. If the Company does not satisfy its obligations, the DOJ can proceed with the prosecution of America Online for actions in connection with PurchasePro.com, as set forth in the complaint, and may consider additional actions against the Company, which could have significant adverse effects on its operations and financial result. The Company intends to satisfy its obligations under the deferred prosecution agreement. In addition, in connection with the settlement with the SEC, the Company consented to entry of a Consent Order requiring it to comply with federal securities laws and regulations and the terms of an earlier order. If the Company is found to be in violation of the Consent Order, it may be subject to increased penalties and consequences as a result of the prior actions. As of August 1, 2005, 42 putative class action and shareholder derivative lawsuits alleging violations of federal and state securities laws as well as purported breaches of fiduciary duties had been filed against Time Warner, certain of its current and former executives, past

and present members of its Board of Directors and, in certain instances, America Online. There is also a consolidated action making allegations of ERISA violations. The complaints purport to be made on behalf of certain of the Company's shareholders and allege, among other things, that Time Warner violated various provisions of the securities laws. There are also actions filed by individual shareholders pending in federal and state courts. Although the Company has reached an agreement in principle to settle the primary consolidated securities class action lawsuits, the settlement is subject to certain conditions and some members of the class may elect to "opt out" of the settlement to pursue their claims separately. In addition, the shareholder derivative, ERISA and individual securities actions remain pending and the Company is unable to predict the outcome of these remaining securities matters. The Company has established a reserve of $3 billion, with $2.4 billion related to the proposed settlement of the primary consolidated securities class actions and $600 million in connection with the remaining shareholder derivative, ERISA and securities matters. The Company is incurring expenses as a result of the pending litigation, and costs associated with judgments in or additional settlements of these matters could adversely affect its financial condition and results of operations. See Note 10, "Commitments and Contingencies–Securities Matters."

Technological developments may adversely affect the Company's competitive position and limit its ability to protect its valuable intellectual property rights. Time Warner's businesses operate in the highly competitive, consumer-driven and rapidly changing media and entertainment industries. These businesses, as well as the industries generally, are to a large extent dependent on the ability to acquire, develop, adopt, and exploit new technologies to distinguish their products and services from those of their competitors. In addition, the Company may face legal and practical limitations on its ability to enforce the Company's intellectual property rights as a result of technological developments that facilitate the theft and unlawful distribution of the Company's copyrighted works in digital form, including via the Internet. For example:

- The Company's cable business may be adversely affected by more aggressive than expected competition from alternate technologies, such as satellite, DSL, traditional phone, and wireless and power-line services; by the failure to choose technologies appropriately; by the failure of new equipment, such as digital set-top boxes or digital video recorders; or by the failure of new services, such as digital cable, high-speed data services, Digital Phone and Video-On-Demand, to appeal to enough consumers, or to be available at prices consumers are willing to pay, to function as expected or to be delivered in a timely fashion;
- The Company's America Online business may be adversely affected by competitors' abilities to develop new technologies more quickly, including more compelling features/functions and premium digital services for Internet users, and by the uncertainty of the costs for obtaining rights from third parties, including appropriate patent licenses for technologies and methods used to deliver new services; and
- The Company's filmed entertainment and television network businesses may be adversely affected by the impact of digital video recorders or other technologies that change the nature of television advertising or by the fragmentation of consumer leisure and entertainment time caused by a greater number of choices resulting from technological developments.

Caution Regarding Forward-Looking Statements

The SEC encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. This document contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, particularly statements anticipating future growth in revenues, Operating Income before Depreciation and Amortization and cash flow. Words such as "anticipates," "estimates," "expects," "projects," "intends," "plans," "believes" and words and terms of similar substance used in connection with any discussion of future operating or financial performance identify forward-looking statements. These forward-looking statements are based on management's present expectations and beliefs about future events. As with any projection or forecast, they are inherently susceptible to uncertainty and changes in circumstances, and the Company is under no obligation to, and expressly disclaims any obligation to,

update or alter its forward-looking statements whether as a result of such changes, new information, subsequent events or otherwise.

Additionally, Time Warner operates in highly competitive, consumer and technology-driven and rapidly changing media, entertainment and Internet businesses. These businesses are affected by government regulation, economic, strategic, political and social conditions, consumer response to new and existing products and services, technological developments and, particularly in view of new technologies, the continued ability to protect intellectual property rights. Time Warner's actual results could differ materially from management's expectations because of changes in such factors. Other factors and risks could adversely affect the operations, business or financial results of Time Warner or its business segments in the future and could also cause actual results to differ materially from those contained in the forward-looking statements, including those identified in Time Warner's other filings with the SEC, and the following factors and risks:

For Time Warner's AOL business:

- the ability to successfully implement its business strategy;
- the ability to develop and introduce new products and services to remain competitive;
- the ability to differentiate its products and services from its competitors;
- the ability to develop, adopt or have access to new technologies;
- the ability to have access to distribution channels controlled by third parties;
- the ability to manage its subscriber base profitably;
- risks related to a non-compliance with the Deferred Prosecution Agreement and applicable FTC Consent Decrees and Assurances of Voluntary Compliance;
- the ability to provide adequate server, network and system capacity;
- the risk of business interruption caused by computer viruses, worms or other malicious activity, weather events, natural disasters, terrorist attacks, third-party supplier failures, or unforeseen events;
- the risk of unanticipated increased costs for network services;
- the ability to maintain, and the cost of maintaining, the privacy and security of company and customer information;
- increased competition from providers of Internet services, including providers of broadband access;
- the ability to generate increased usage of sites and services that are part of the America Online network, and the ability to maintain or expand the audience for its sites, content and services;
- the ability to attract additional traditional advertisers to the online advertising medium;
- the ability to maintain, expand or renew existing advertising or marketing commitments;
- the risk that the online advertising industry will not continue to grow, and that even if the industry continues to grow, the risk that America Online will not successfully compete in securing advertising relationships;

- the ability to maintain or enter into new content, electronic commerce or marketing arrangements and the risk that the cost of such arrangements may increase;
- risks associated with state, local or federal taxation of online services and Internet access providers;
- risks associated with foreign currency exchange rates; and
- the risks from changes in U.S. and international regulatory environments affecting interactive services.

For Time Warner's cable business:

- more aggressive than expected competition, including price competition, from other distributors of video programming, including direct to home satellite distributors, regional incumbent telephone companies and from competitors using new technologies;
- more aggressive than expected competition, including price competition, from other distributors of high-speed data services, including DSL, satellite and terrestrial wireless distributors, power companies and from competitors using new technologies;
- more aggressive than expected competition, including price competition, from other distributors of voice services, including regional telephone companies, long distance providers, national VoIP providers, wireless distributors and from competitors using new technologies;
- additional competition fostered by the grant of additional cable franchises by governmental authorities that enable competing operators to build cable systems in areas in which TWC Inc. holds franchises;
- greater than expected increases in programming or other costs, including costs of new products and services, or difficulty in passing such costs to subscribers;
- increases in government regulation of video services, including regulation that limits cable operators' ability to raise rates, that requires that particular programming be carried or offered in a particular manner (for instance, "a la carte"), or that dictates set-top box or other equipment features, functionalities or specifications;
- government regulation of other services, such as high-speed data and voice services, including regulation that results in the imposition of pole fees for such services that are higher than those permissible for video services;
- government regulation that dictates the manner in which it operates its cable systems or determines what to offer, such as the imposition of "forced access" rules or common carrier type requirements;
- increased difficulty in obtaining franchise renewals;
- the failure of new equipment, such as digital set-top boxes or digital video recorders, or by the failure of new services, such as digital cable service, high-speed data services, voice service or video-on-demand, to appeal to enough consumers or to be available at prices consumers are willing to pay, to function as expected or to be delivered in a timely fashion;
- fluctuations in spending levels by advertisers and consumers;
- changes in technology and failure to anticipate technological developments or to choose and implement technologies appropriately;

- unanticipated funding obligations relating to its cable joint ventures;
- a future decision by the FCC or Congress to require cable operators to contribute to the federal "Universal Service Fund" based on the provision of cable modem service, which could raise the price of cable modem service and impair TWC Inc.'s competitive position;
- the award of franchises or similar grants of rights to competitors of cable providers on terms substantially more favorable than those afforded existing cable operators;
- the risk of business interruption caused by computer viruses, worms or other malicious activity, weather events, natural disasters, terrorist attacks, third-party supplier failures, or unforeseen events, as well as the cost of repairing damage caused by such events; and
- the ability to maintain, and the cost of maintaining, the privacy and security of company and customer information.

For Time Warner's filmed entertainment businesses:

- the ability to continue to attract and select desirable talent and scripts at manageable costs;
- general increases in production costs;
- fragmentation of consumer leisure and entertainment time and its possible negative effects on the broadcast and cable networks, which are significant customers of the filmed entertainment businesses;
- continued popularity of merchandising;
- the uncertain impact of technological developments that facilitate theft and unlawful distribution of the Company's copyrighted works and by legal and practical limitations on the ability to enforce the Company's intellectual property rights;
- the ability to develop and apply adequate protections for filmed entertainment content in a digital delivery environment;
- the ability to develop successful business models for the secure delivery of filmed entertainment products in a digital environment;
- risks associated with foreign currency exchange rates;
- with respect to feature films, the risk that marketing costs associated with theatrical film releases in a highly competitive marketplace will increase;
- with respect to television programming, increased competition in viewership for broadcast programming due to the increasing number of cable and pay television services;
- with respect to home video, the threat that an impending format war over the next generation of high definition DVD product might prevent a smooth transition from the current DVD product to the next generation, thereby fragmenting and diminishing the potential market while harming current DVD sales as the industry and consumers wait to see which format or formats will prevail;

- the risk that domestic DVD sales growth will slow resulting from a reduced expansion in the number of new DVD households, as DVD player penetration approaches maturation; and
- the ability to maintain an ad supported commercial television model in the face of challenges posed by increased consumer usage of digital video recorders or other technologies that change the nature of the advertising and other markets for television products.

For Time Warner's network businesses:

- increased competition from large media companies whose increasing scale could result in competitive advantages, including in advertising sales, promotions, programming and other areas;
- greater than expected newsgathering, programming or production costs;
- increased resistance by cable and satellite distributors to wholesale price increases;
- the negative impact on premium programmers of greater than anticipated basic cable rate increases to consumers;
- increased regulation of distribution agreements;
- the sensitivity of network advertising to economic cycles and to new media technologies;
- the negative impact of further consolidation of multiple-system cable operators;
- theft and unlawful distribution of content by means of interception of cable and satellite transmissions or Internet peer-to-peer file sharing;
- the impact of digital video recorders or other technologies that change the nature of television advertising;
- the development of new technologies that alter the role of programming networks and services; and
- greater than expected fragmentation of consumer viewership, as well as the possible loss of viewers, as a result of the increased number of programming services and the increased popularity of alternatives to television.

For Time Warner's publishing businesses:

- declines in spending levels by advertisers and consumers;
- the ability in a challenging environment to continue to develop new profitable sources of circulation;
- substantial postal rate increases expected during the first half of 2006;
- further increases in paper prices;
- increased costs and business disruption resulting from instability in the newsstand distribution channel;
- increased competition from new magazine entrants may have an impact on its most profitable magazines, including *People;*
- risks associated with changes in foreign currency exchange rates;

- changes in government regulation of direct marketing;
- receipt of information identifying debit card purchasers which may require changes in payment acceptance procedures for such purchasers, which could decrease subscription renewals; and
- the introduction and increased popularity over the long term of alternative technologies for the distribution of news and information.

For Time Warner generally, achieving the Company's financial objectives, including growth in operations, maintaining financial ratios and a strong balance sheet, could be adversely affected by decreased liquidity in the capital markets, including any reduction in the ability to access either the capital markets for debt securities or bank financings, failure to meet earnings expectations, significant acquisitions such as the pending Adelphia acquisition or other transactions such as the proposed redemption of Comcast's interests in TWC Inc. and TWE, economic slowdowns, the impact of terrorist acts and hostilities in Iraq and elsewhere in the world, increased expenses as a result of the securities litigation pending against Time Warner, as well as the risk of costs associated with judgments in or additional settlements of such matters, and changes in the Company's plans, strategies and intentions. In addition, lower than expected valuations associated with the cash flows and revenues at its segments may result in its inability to realize the value of recorded intangibles and goodwill at those segments.

TIME WARNER INC.
Item 4. CONTROLS AND PROCEDURES

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

The Company, under the supervision and with the participation of its management, including the Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of the Company's "disclosure controls and procedures" (as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act")) as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective in timely making known to them material information relating to the Company and the Company's consolidated subsidiaries required to be disclosed in the Company's reports filed or submitted under the Exchange Act. The Company has investments in certain unconsolidated entities. As the Company does not control these entities, its disclosure controls and procedures with respect to such entities are necessarily substantially more limited than those it maintains with respect to its consolidated subsidiaries. The Company began consolidating the financial results of AOLA, effective March 31, 2004 pursuant to the requirements of FASB Interpretation No. 46 (Revised), "Consolidation of Variable Interest Entities." Because the Company does not control AOLA, the Company's disclosure controls and procedures with respect to information regarding AOLA also are more limited than those for consolidated subsidiaries the Company controls.

Changes in Internal Control Over Financial Reporting

There have not been any changes in the Company's internal control over financial reporting during the quarter ended June 30, 2005 that have materially affected, or are reasonably likely to materially affect, its internal control over financial reporting.

TIME WARNER INC.
CONSOLIDATED BALANCE SHEET
(Unaudited)

	June 30, 2005	December 31, 2004
	(millions, except per share amounts)	
ASSETS		
Current assets		
Cash and equivalents	$ 7,592	$ 6,139
Restricted cash	150	150
Receivables, less allowances of $1.966 and $2.109 billion	5,001	5,512
Inventories	1,638	1,737
Prepaid expenses and other current assets	1,006	920
Total current assets	15,387	14,458
Noncurrent inventories and film costs	4,454	4,415
Investments, including available-for-sale securities	3,438	4,703
Property, plant and equipment, net	13,200	13,094
Intangible assets subject to amortization, net	3,689	3,892
Intangible assets not subject to amortization	39,698	39,656
Goodwill	39,745	39,667
Other assets	2,976	3,273
Total assets	$122,587	$123,158
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 1,030	$ 1,339
Participations payable	2,284	2,580
Royalties and programming costs payable	1,168	1,018
Deferred revenue	1,599	1,653
Debt due within one year	1,188	1,672
Other current liabilities	7,673	6,468
Current liabilities of discontinued operations	40	50
Total current liabilities	14,982	14,780
Long-term debt	19,361	20,703
Deferred income taxes	14,339	14,943
Deferred revenue	730	749
Mandatorily convertible preferred stock	—	1,500
Other liabilities	4,898	4,160
Noncurrent liabilities of discontinued operations	7	38
Minority interests	5,650	5,514
Commitments and contingencies (Note 10)		
Shareholders' equity		
Series LMCN-V common stock, $0.01 par value, 87.2 and 105.7 million shares outstanding	1	1
Time Warner common stock, $0.01 par value, 4.604 and 4.483 billion shares outstanding	46	45
Paid-in-capital	157,934	156,252
Accumulated other comprehensive income (loss), net	(370)	106
Accumulated deficit	(94,991)	(95,633)
Total shareholders' equity	62,620	60,771
Total liabilities and shareholders' equity	$122,587	$123,158

See accompanying notes.

TIME WARNER INC.
CONSOLIDATED STATEMENT OF OPERATIONS
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(millions, except per share amounts)			
Revenues:				
Subscription	$ 5,618	$ 5,486	$ 11,110	$ 10,800
Advertising	2,020	1,846	3,667	3,293
Content	2,816	3,237	5,899	6,354
Other	290	291	551	598
Total revenues [a]	10,744	10,860	21,227	21,045
Costs of revenues [a]	(6,249)	(6,342)	(12,249)	(12,313)
Selling, general and administrative [a]	(2,571)	(2,515)	(5,099)	(4,960)
Amortization of intangible assets	(152)	(157)	(302)	(311)
Legal reserves related to securities litigation	(3,000)	—	(3,000)	—
Restructuring costs	(11)	2	(23)	2
Asset impairments	—	(10)	(24)	(10)
Gains on disposal of assets, net	8	—	18	1
Operating income (loss)	(1,231)	1,838	548	3,454
Interest expense, net [a]	(324)	(383)	(670)	(787)
Other income, net	989	33	1,100	64
Minority interest expense, net	(72)	(62)	(131)	(118)
Income (loss) before income taxes, discontinued operations and cumulative effect of accounting change	(638)	1,426	847	2,613
Income tax benefit (provision)	317	(544)	(205)	(1,019)
Income (loss) before discontinued operations and cumulative effect of accounting change	(321)	882	642	1,594
Discontinued operations, net of tax	—	(105)	—	110
Income (loss) before cumulative effect of accounting change	(321)	777	642	1,704
Cumulative effect of accounting change, net of tax	—	—	—	34
Net income (loss)	$ (321)	$ 777	$ 642	$ 1,738
Basic income (loss) per common share before discontinued operations and cumulative effect of accounting change	$ (0.07)	$ 0.19	$ 0.14	$ 0.35
Discontinued operations	—	(0.02)	—	0.02
Cumulative effect of accounting change	—	—	—	0.01
Basic net income (loss) per common share	$ (0.07)	$ 0.17	$ 0.14	$ 0.38
Average basic common shares	4,683.1	4,561.7	4,636.6	4,555.4
Diluted income (loss) per common share before discontinued operations and cumulative effect of accounting change	$ (0.07)	$ 0.19	$ 0.14	$ 0.34
Discontinued operations	—	(0.02)	—	0.02
Cumulative effect of accounting change	—	—	—	0.01
Diluted net income (loss) per common share	$ (0.07)	$ 0.17	$ 0.14	$ 0.37
Average diluted common shares	4,683.1	4,700.7	4,725.6	4,698.1

[a] Includes the following income (expenses) resulting from transactions with related companies:

Revenues	$ 57	$ 47	$ 116	$ 109
Costs of revenues	(74)	(62)	(139)	(122)
Selling, general and administrative	10	9	18	16
Interest income, net	8	6	15	11

See accompanying notes.

TIME WARNER INC.
CONSOLIDATED STATEMENT OF CASH FLOWS
Six Months Ended June 30,
(Unaudited)

	2005	2004
	(millions)	
OPERATIONS		
Net income [a]	$ 642	$ 1,738
Adjustments for noncash and nonoperating items:		
Cumulative effect of accounting change, net of tax	—	(34)
Depreciation and amortization	1,611	1,588
Amortization of film costs	1,462	1,518
Asset impairments	24	10
Gain on investments and other assets, net	(1,074)	(54)
Equity in income of investee companies, net of cash distributions	(33)	(7)
Legal reserves related to securities litigation	3,000	—
Changes in operating assets and liabilities, net of acquisitions [b]	(2,158)	(1,463)
Adjustments relating to discontinued operations	(11)	10
Cash provided by operations [c]	3,463	3,306
INVESTING ACTIVITIES		
Investments and acquisitions, net of cash acquired	(258)	(213)
Capital expenditures and product development costs	(1,448)	(1,341)
Investment proceeds from available-for-sale securities	976	40
Other investment proceeds	368	2,632
Cash provided (used) by investing activities	(362)	1,118
FINANCING ACTIVITIES		
Borrowings	1,203	1,489
Debt repayments	(3,037)	(2,865)
Proceeds from exercise of stock options	158	224
Principal payments on capital leases	(67)	(102)
Other	95	16
Cash used by financing activities	(1,648)	(1,238)
INCREASE IN CASH AND EQUIVALENTS	1,453	3,186
CASH AND EQUIVALENTS AT BEGINNING OF PERIOD	6,139	3,040
CASH AND EQUIVALENTS AT END OF PERIOD	$ 7,592	$ 6,226

(a) For the six months ended June 30, 2004, includes net income from discontinued operations of $110 million.
(b) For the six months ended June 30, 2005, includes a $300 million payment related to the government investigations.
(c) For the six months ended June 30, 2005, includes an approximate $36 million use of cash related to changing the fiscal year end of certain international operations from November 30 to December 31.

See accompanying notes.

TIME WARNER INC.
CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY
Six Months Ended June 30,
(Unaudited)

	2005	2004
	(millions)	
BALANCE AT BEGINNING OF PERIOD	$ 60,771	$ 56,213
Net income	642	1,738
Other comprehensive loss	(476)	(33)
Comprehensive income [a]	166	1,705
Conversion of mandatorily convertible preferred stock	1,500	—
Other [b]	183	375
BALANCE AT END OF PERIOD	$ 62,620	$ 58,293

(a) Comprehensive income (loss) was $(780) million and $745 million for the three months ended June 30, 2005 and 2004, respectively.

(b) For the six months ended June 30, 2005, primarily includes approximately $200 million for shares issued pursuant to stock option and other benefit plans (including the related income tax benefit of approximately $19 million) and an approximate $23 million net loss related to changing the fiscal year end of certain international operations from November 30 to December 31 (including the related income tax benefit of approximately $9 million). For the six months ended June 30, 2004, includes approximately $325 million for shares issued pursuant to stock option and other benefit plans (including the related income tax benefit of approximately $55 million).

See accompanying notes.

TIME WARNER INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. DESCRIPTION OF BUSINESS, RECENT TRANSACTIONS AND BASIS OF PRESENTATION

Description of Business

Time Warner Inc. ("Time Warner" or the "Company") is a leading media and entertainment company, whose businesses include interactive services, cable systems, filmed entertainment, television networks and publishing. Time Warner classifies its business interests into five reportable segments: *AOL:* consisting principally of interactive services; *Cable:* consisting principally of interests in cable systems that provide video programming, high-speed data and Digital Phone services; *Filmed Entertainment:* consisting principally of feature film, television and home video production and distribution; *Networks:* consisting principally of cable television and broadcast networks; and *Publishing:* consisting principally of magazine and book publishing. Financial information for Time Warner's various reportable segments is presented in Note 7.

Recent Transactions

Legal Reserves Related to Securities Litigation

The Company has reached an agreement in principle for the settlement of the securities class action lawsuits included in the matters consolidated under the caption *In re: AOL Time Warner Inc. Securities & "ERISA" Litigation* and described in the Company's Annual Report on Form 10-K for the year ended December 31, 2004 (the "2004 Form 10-K"). The tentative settlement is reflected in a Memorandum of Understanding dated as of July 29, 2005 between the lead plaintiff and the Company. Under the proposed settlement, $2.4 billion will be paid by Time Warner into a settlement fund for the members of the class represented in the action. In addition, the $150 million previously paid by Time Warner into a fund in connection with the settlement of the investigation by the U.S. Department of Justice ("DOJ") will be made available to the class, and Time Warner will use its best efforts to have the $300 million it previously paid in connection with the settlement of its Securities and Exchange Commission ("SEC") investigation transferred to the settlement fund for the class. The proposed settlement is subject to completion of final documentation and preliminary and final court approval as well as other conditions. At this time, there can be no assurance that these conditions will be met and that the settlement of the securities class action litigation will receive preliminary or final court approval. Ernst & Young also has agreed to a settlement in this litigation matter and will pay $100 million.

In connection with reaching the agreement in principle on the securities class action litigation, the Company has established a reserve of $2.4 billion. Although the Company has reached an agreement in principle to settle the primary securities class action, other related litigation remains pending, including shareholder derivative actions, lawsuits alleging ERISA violations and securities actions brought by individual shareholders. The Company has established an additional reserve totaling $600 million in connection with the remaining related securities litigation matters pending against the Company. This $600 million amount represents the Company's current best estimate of its potential financial exposure in these matters. The aggregate $3 billion reserve established, however, does not consider any future insurance recoveries under existing insurance policies because the Company cannot reliably estimate the amount of recovery at this time (Note 10).

Common Stock Repurchase Program

On July 29, 2005, Time Warner's Board of Directors authorized a common stock repurchase program that allows Time Warner to repurchase, from time to time, up to $5 billion of common stock over a two-year period. Purchases for the stock repurchase program may be made from time to time on the open market and in privately negotiated transactions. Size and timing of these purchases will be based on a number of factors including price and business and market conditions.

Common Stock Dividend

As previously announced, the Company will start paying a regular quarterly cash dividend of $0.05 per share on its common stock, beginning in the third quarter of this year.

TIME WARNER INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Unaudited)

Investment in Google Inc.

In May 2004, America Online, Inc. ("America Online" or "AOL") exercised a warrant for approximately $22 million and received approximately 7.4 million shares of Series D Preferred Stock of Google Inc. ("Google"). Each of these shares converted automatically into shares of Google's Class B common stock immediately prior to the closing of Google's initial public offering on August 24, 2004. In connection with this offering, America Online converted approximately 2.4 million shares of its Google Class B common stock into an equal number of shares of Google's Class A common stock. Such Class A shares were sold in the offering for $195 million, net of the underwriters' discounts and commissions, and the Company recorded a gain of approximately $188 million in the third quarter of 2004. Beginning in March, the Company entered into agreements to sell its remaining 5.1 million shares at an average share price of approximately $185. The sales under such agreements settled on May 3, 2005, and the Company received total cash consideration of approximately $940 million, resulting in a gain of approximately $925 million recognized in the second quarter of 2005, which is included as a component of Other income, net.

Adelphia/Comcast

Adelphia Acquisition Agreement

On April 20, 2005, a subsidiary of the Company, Time Warner NY Cable LLC ("TW NY"), and Comcast Corporation ("Comcast") each reached separate definitive agreements to, collectively, acquire substantially all the assets of Adelphia Communications Corporation ("Adelphia") for a total of $12.7 billion in cash (of which TW NY will pay $9.2 billion and Comcast will pay the remaining $3.5 billion) and 16% of the common stock of Time Warner Cable Inc. ("TWC Inc.").

At the same time that Comcast and TW NY entered into the Adelphia agreements, Comcast, TWC Inc. and/or their respective affiliates entered into agreements providing for the redemption of Comcast's interests in TWC Inc. and Time Warner Entertainment Company, L.P. ("TWE") (the "TWC Inc. Redemption Agreement" and the "TWE Redemption Agreement," respectively, and, collectively, the "TWC Inc. and TWE Redemption Agreements"). Specifically, Comcast's 17.9% interest in TWC Inc. will be redeemed in exchange for stock of a subsidiary of TWC Inc. holding cable systems serving approximately 587,000 subscribers (as of December 31, 2004), as well as approximately $1.9 billion in cash. In addition, Comcast's 4.7% interest in TWE will be redeemed in exchange for interests in a subsidiary of TWE holding cable systems serving approximately 168,000 subscribers (as of December 31, 2004), as well as approximately $133 million in cash. TWC Inc., Comcast and their respective subsidiaries will also swap certain cable systems to enhance their respective geographic clusters of subscribers ("Cable Swaps").

After giving effect to the transactions, TWC Inc. will gain systems passing approximately 7.5 million homes (as of December 31, 2004), with approximately 3.5 million basic subscribers. TWC Inc. will then manage a total of approximately 14.4 million basic subscribers. Time Warner will own 84% of TWC Inc.'s common stock, which will become publicly traded at the time of closing, and own a $2.9 billion indirect economic interest in TW NY, a subsidiary of TWC Inc.

These transactions are subject to customary regulatory review and approvals, including Hart-Scott-Rodino antitrust approval, Federal Communications Commission and local franchise approvals, as well as, in the case of the Adelphia acquisition, the Adelphia bankruptcy process, which involves approvals by the bankruptcy court having jurisdiction over Adelphia's Chapter 11 case and Adelphia's creditors. An amended plan of reorganization was filed with the bankruptcy court by Adelphia on June 25, 2005. Closing of the Adelphia acquisition is expected during the first half of 2006.

TIME WARNER INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Unaudited)

The purchase of Adelphia's assets is not dependent on the occurrence of the Cable Swaps and redemption transactions between Time Warner and Comcast. Furthermore, if Comcast fails to obtain certain necessary governmental authorizations, TW NY has agreed that it will also acquire the cable operations of Adelphia that would have been acquired by Comcast, with the purchase price payable in cash or TWC Inc. stock at the Company's discretion.

Amendments to Existing Arrangements

In addition to entering into the agreements to purchase substantially all of Adelphia's assets, the TWC Inc. and TWE Redemption Agreements and Cable Swaps described above, the Company and Comcast amended certain pre-existing agreements. The objective of these amendments is to terminate these agreements contingent upon the completion of the transactions provided for in the TWC Inc. and TWE Redemption Agreements, described above. A brief description of these amendments is as follows:

Registration Rights Agreement. In conjunction with the restructuring of TWE completed in 2003 (the "TWE Restructuring"), TWC Inc. granted Comcast and certain affiliates registration rights related to the shares of TWC Inc. Class A common stock acquired by Comcast in the TWE Restructuring. In connection with the entry into the TWC Inc. and TWE Redemption Agreements, Comcast generally has agreed not to exercise or pursue registration rights with respect to the TWC Inc. Class A common stock owned by it until such date as the TWC Inc. Redemption Agreement described above is terminated in accordance with its terms.

Tolling and Optional Redemption Agreement. On April 20, 2005, a subsidiary of TWC Inc., Comcast and certain of its affiliates entered into an amendment (the "Second Tolling Amendment") to the Tolling and Optional Redemption Agreement, dated as of September 24, 2004, and previously amended on February 17, 2005. Pursuant to the Second Tolling Amendment, the parties agreed that if the TWC Inc. Redemption Agreement terminates, TWC Inc. will redeem 23.8% of Comcast's 17.9% ownership of TWC Inc. Class A common stock in exchange for 100% of the common stock of a TWC Inc. subsidiary that will own certain cable systems serving approximately 148,000 basic subscribers (as of December 31, 2004) plus approximately $422 million in cash.

A more complete description of the proposed transactions and amendments to existing agreements described above may be found in the Company's Current Reports on Form 8-K, each dated April 20, 2005 and filed with the SEC on April 21, 2005 and April 27, 2005.

Alternate Tolling and Optional Redemption Agreement. On May 31, 2005, a subsidiary of TWC Inc., Comcast and certain of its affiliates and a trust established for the benefit of Comcast entered into the Alternate Tolling and Optional Redemption Agreement (the "Alternate Tolling Amendment"). Pursuant to the Alternate Tolling Amendment, the parties agreed that if the TWC Inc. Redemption Agreement terminates, but the TWE Redemption Agreement is not terminated, TWC Inc. will redeem 23.8% of Comcast's 17.9% ownership of TWC Inc. Class A common stock in exchange for 100% of the common stock of a TWC Inc. subsidiary which will own certain cable systems serving approximately 148,000 basic subscribers (as of December 31, 2004) plus approximately $422 million in cash.

Basis of Presentation

Reclassifications

Certain reclassifications have been made to the prior year financial information to conform to the June 30, 2005 presentation.

TIME WARNER INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Unaudited)

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the amounts reported in the financial statements and footnotes thereto. Actual results could differ from those estimates.

Significant estimates inherent in the preparation of the accompanying consolidated financial statements include accounting for asset impairments, allowances for doubtful accounts, film ultimate revenues, video and magazine returns, business combinations, pensions and other postretirement benefits, income taxes and contingencies.

Interim Financial Statements

The accompanying consolidated financial statements are unaudited however, in the opinion of management, contain all the adjustments (consisting of those of a normal recurring nature) considered necessary to present fairly the financial position and the results of operations and cash flows for the periods presented in conformity with GAAP applicable to interim periods. The accompanying consolidated financial statements should be read in conjunction with the audited consolidated financial statements of Time Warner included in the Company's 2004 Form 10-K.

Income (Loss) Per Common Share

Basic income (loss) per common share is computed by dividing the net income (loss) applicable to common shares after preferred dividend requirements, if any, by the weighted average of common shares outstanding during the period. Weighted-average common shares include shares of Time Warner's common stock and Series LMCN-V common stock. Diluted income (loss) per common share adjusts basic income (loss) per common share for the effects of convertible securities, stock options, restricted shares, restricted stock units and other potentially dilutive financial instruments, only in the periods in which such effect is dilutive.

Set forth below is a reconciliation of basic and diluted income (loss) per common share before discontinued operations and cumulative effect of accounting change:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(millions, except per share amounts)			
Income (loss) before discontinued operations and cumulative effect of accounting change — basic and diluted	$ (321)	$ 882	$ 642	$ 1,594
Average number of common shares outstanding — basic	4,683.1	4,561.7	4,636.6	4,555.4
Dilutive effect of stock options, restricted shares and restricted stock units [a]	—	53.7	47.8	57.4
Dilutive effect of mandatorily convertible preferred stock	—	85.3	41.2	85.3
Average number of common shares outstanding — diluted	4,683.1	4,700.7	4,725.6	4,698.1
Income (loss) per common share before discontinued operations and cumulative effect of accounting change:				
Basic	$ (0.07)	$ 0.19	$ 0.14	$ 0.35
Diluted	$ (0.07)	$ 0.19	$ 0.14	$ 0.34

(a) For the three months ended June 30, 2005, the average number of diluted common shares outstanding excludes 44.0 million of stock options, restricted shares and restricted stock units that if included would be anti-dilutive.

TIME WARNER INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Unaudited)

Government Investigations

As previously disclosed by the Company, the SEC and the DOJ had been conducting investigations into the accounting and disclosure practices of the Company. Those investigations focused on advertising transactions, principally involving the Company's America Online segment, the methods used by the America Online segment to report its subscriber numbers and the accounting related to the Company's interest in AOL Europe prior to January 2002.

The Company and its subsidiary, AOL, entered into a settlement with the DOJ in December 2004 that provided for a deferred prosecution arrangement for a two-year period. In addition, on March 21, 2005, the Company announced that the SEC has approved the Company's proposed settlement, which resolves the SEC's investigation of the Company.

Under the terms of the settlement with the SEC, the Company agreed, without admitting or denying the SEC's allegations, to be enjoined from future violations of certain provisions of the securities laws and to comply with the cease-and-desist order issued by the SEC to AOL in May 2000. The settlement also required the Company to:

- Pay a $300 million penalty, which will be used for a Fair Fund, as authorized under the Sarbanes-Oxley Act;
- Adjust its historical accounting for Advertising revenues in certain transactions with Bertelsmann, A.G. that were improperly or prematurely recognized, primarily in the second half of 2000, during 2001 and during 2002; as well as adjust its historical accounting for transactions involving three other AOL customers where there were Advertising revenues recognized in the second half of 2000 and during 2001;
- Adjust its historical accounting for its investment in and consolidation of AOL Europe; and
- Agree to the appointment of an independent examiner, who will either be or hire a certified public accountant. The independent examiner will review whether the Company's historical accounting for transactions with 17 counterparties identified by the SEC staff, principally involving online advertising revenues and including three cable programming affiliation agreements with related advertising elements, was in conformity with GAAP, and provide a report to the Company's audit and finance committee of its conclusions within 180 days of being engaged. The transactions that would be reviewed were entered into between June 1, 2000 and December 31, 2001, including subsequent amendments thereto, and involved online advertising and related transactions for which revenue was principally recognized before January 1, 2002.

The Company paid the $300 million penalty in March 2005; however, it will not be able to deduct the penalty for income tax purposes, be reimbursed or indemnified for such payment through insurance or any other source, or use such payment to setoff or reduce any award of compensatory damages to plaintiffs in related securities litigation pending against the Company. As described above, in connection with the proposed settlement of the primary securities class action, the Company has agreed to use its best efforts to have the $300 million transferred to the settlement fund for the class represented in the action. The historical accounting adjustments were reflected in the restatement of the Company's financial results for each of the years ended December 31, 2000 through December 31, 2003, which were included in the Company's 2004 Form 10-K.

The independent examiner has begun its review, which is expected to be completed by the end of the year. Depending on the independent examiner's conclusions, a further restatement might be necessary. It is also possible that, so long as there are unresolved issues associated with the Company's financial statements, the effectiveness of any registration statement of the Company or its affiliates may be delayed.

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Stock-Based Compensation

In December 2004, the Financial Accounting Standards Board ("FASB") issued FASB Statement of Financial Accounting Standards ("Statement") No. 123 (Revised), "Share-Based Payment" ("FAS 123R"). FAS 123R requires all companies to measure compensation costs for all share-based payments (including employee stock options) at fair value and recognize such costs in the statement of operations. As a result, the application of the provisions of FAS 123R will have a significant impact on Operating Income before Depreciation and Amortization, Operating Income, net income and earnings per share. In April 2005, the SEC amended the compliance dates for FAS 123R from fiscal *periods* beginning after June 15, 2005 to fiscal *years* beginning after June 15, 2005. The Company will continue to account for share-based compensation using the intrinsic value method set forth in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") until the Company's adoption of FAS 123R beginning January 1, 2006.

In accordance with APB 25 and related interpretations, compensation expense for stock options is recognized in income based on the excess, if any, of the quoted market price of the stock at the grant date of the award or other measurement date over the amount an employee must pay to acquire the stock. The compensation costs related to stock options recognized by the Company pursuant to APB 25 were minimal. If a company measures share-based compensation using APB 25, it must also disclose what the impact would have been if it had measured share-based compensation using the fair value of the equity award on the date it is granted as provided in FAS 123, the predecessor of FAS 123R.

The Company recognizes compensation expense pursuant to the methods specified in FASB Interpretation No. 28, "Accounting for Stock Appreciation Rights and Other Variable Stock Option Award Plans," for its stock option incentive plans under APB 25 and in the FAS 123 pro forma disclosure that follows. Had compensation cost for Time Warner's stock option incentive plans been determined based on the fair value method set forth in FAS 123, Time Warner's net income and basic and diluted net income per common share would have been changed to the following pro forma amounts:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(millions, except per share amounts)			
Net income (loss), as reported	$ (321)	$ 777	$ 642	$ 1,738
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(40)	(79)	(114)	(151)
Pro forma net income (loss)	$ (361)	$ 698	$ 528	$ 1,587
Basic net income (loss) per share:				
As reported	$ (0.07)	$ 0.17	$ 0.14	$ 0.38
Pro forma	$ (0.08)	$ 0.15	$ 0.11	$ 0.35
Diluted net income (loss) per share:				
As reported	$ (0.07)	$ 0.17	$ 0.14	$ 0.37
Pro forma	$ (0.08)	$ 0.15	$ 0.11	$ 0.34

For purposes of these disclosures for the 2005 period, the Company has refined certain of its valuation approaches and inputs and believes such refinements are consistent with valuation techniques required under FAS 123R. As guidance and interpretations in the area of equity-based compensation evolve, the Company will continually assess its methodologies and processes in this area to ensure compliance with FAS 123R. Before the first quarter of 2005, the Company estimated the expected term of an option by computing the average period of time

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such options would remain outstanding from the grant date to the exercise date. The historical expected term was previously computed by segregating the employee base into two groups (senior executives and all other employees). Beginning in the first quarter of 2005, the Company began to use historical exercise patterns of previously granted options in relation to stock price movements to derive an employee behavioral pattern used to forecast expected exercise patterns. In evaluating expected employee exercise behavior, the Company separated employees into four groups based on the number of options they were granted. The weighted average expected term assumption used for the second quarter of 2005 was 4.79 years from the date of grant as compared to 3.60 years from the date of grant for the second quarter of 2004. In addition, historically during 2004, the volatility assumption was calculated using an average of historic and implied volatilities. Beginning in the first quarter of 2005, the Company determined the volatility assumption using implied volatilities based primarily on traded Time Warner options. The weighted average volatility assumption used for the second quarter of 2005 was 27.7% as compared to a weighted average volatility of 34.0% for the second quarter of 2004. Had the Company used the methodologies employed in 2004 to estimate stock option valuation assumptions, the weighted average fair value of an option granted in 2005 would have increased by approximately 1%.

Historically, the Company recognized pro forma stock-based compensation expense related to retirement-age-eligible employees over the award's contractual vesting period. During the first quarter of 2005, based on recent accounting interpretations, the Company recorded a charge related to the accelerated amortization of the fair value of options granted in prior periods to certain retirement-age-eligible employees with no subsequent substantive service requirement (e.g., no substantive non-compete agreement). As a result, pro forma stock-based compensation expense for the six months ended June 30, 2005 reflects approximately $20 million, net of tax, related to the accelerated amortization of the fair value of options granted in prior years to certain retirement-age-eligible employees with no subsequent substantive service requirement. In May 2005, the staff of the SEC announced that companies that previously followed the contractual vesting period approach must continue following that approach prior to adopting FAS 123R and apply the recent accounting interpretation to new grants that have retirement eligibility provisions only upon adoption of FAS 123R. As a result, pro forma stock-based compensation expense related to awards granted subsequent to March 31, 2005 has been determined using the contractual vesting period. For the three and six months ended June 30, 2005, the impact of applying the contractual vesting period approach as compared to the approach noted in the recent accounting interpretations is not significant.

Conditional Asset Retirement Obligations

In March 2005, the FASB issued FASB Interpretation No. 47, "Accounting for Conditional Asset Retirement Obligations — an Interpretation of FASB Statement No. 143 ("FIN 47"). FIN 47 clarifies the timing of liability recognition for legal obligations associated with the retirement of a tangible long-lived asset when the timing and/or method of settlement are conditional on a future event. FIN 47 is effective for Time Warner no later than December 31, 2005. The application of FIN 47 is not expected to have a material impact on the Company's consolidated financial statements.

Accounting Changes and Error Corrections

In May 2005, FASB issued FASB Statement 154, "Accounting Changes and Error Corrections — a replacement of APB Opinion No. 20 and FASB Statement No. 3" ("FAS 154"). FAS 154 changes the requirements for the accounting for and reporting of a change in accounting principle. The provisions of FAS 154 require, unless impracticable, retrospective application to prior periods' financial statements of (1) all voluntary changes in accounting principles and (2) changes required by a new accounting pronouncement, if a specific transition is not provided. FAS 154 also requires that a change in depreciation, amortization, or depletion method for long-lived, non-financial assets be accounted for as a change in accounting estimate, which requires prospective application of the new method. FAS 154 is effective for all accounting changes made in fiscal years beginning after December 15, 2005.

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2. SALE OF MUSIC SEGMENT

On March 1, 2004, the Company sold its Warner Music Group ("WMG") recorded music and Warner/Chappell music publishing operations to a private investment group ("Investment Group") for approximately $2.6 billion in cash and an option to reacquire a minority interest in the operations sold. The Company has presented the results of operations and financial condition of the former music operations as discontinued operations in the accompanying consolidated financial statements. As of June 30, 2005, there were $47 million of liabilities associated with the former music operations, recorded on the Company's balance sheet. The liabilities were principally related to severance payments to former employees of the music operations, which were retained by Time Warner.

Financial information of the music operations and adjustments to the initial estimates of the assets sold and liabilities assumed included in discontinued operations in the accompanying consolidated statement of operations for the three and six months ended June 30, 2004, is as follows (millions):

	Three Months Ended June 30, 2004	Six Months Ended June 30, 2004
Total revenues	$ —	$ 780
Pretax loss	(93)	(16)
Income tax (expense) benefit	(12)	126
Net income (loss)	(105)	110

As part of the sale of the WMG operations, the Company retained an option to reacquire a minority interest in the WMG recorded music and music publishing business. This option was accounted for in accordance with FASB Statement No. 133, "Accounting for Derivative Instruments and Hedging Activities." In the first quarter of 2005, the Company entered into an agreement with WMG pursuant to which WMG agreed to a cash purchase of the Company's option at the time of the WMG public offering at a price based on the initial public offering price per share, net of any underwriters' discounts. As a result of the estimated public offering price range, the Company adjusted the value of the option in the first quarter of 2005 from $85 million to $165 million and, accordingly, recorded a gain of $80 million in Other income, net. In the second quarter of 2005, WMG's registration statement was declared effective at a reduced price from its initial estimated range, and the Company received approximately $138 million from the sale of its option. As a result of these events, for the three and six months ended June 30, 2005, the Company recorded a $27 million loss and a $53 million net gain, respectively, related to this option, which are recorded in Other income, net, in the accompanying consolidated statement of operations.

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3. INVENTORIES AND FILM COSTS

Inventories and film costs consist of:

	June 30, 2005	December 31, 2004
	(millions)	
Programming costs, less amortization	$ 2,730	$ 2,599
Videocassettes, DVDs, books, paper and other merchandise	483	522
Film costs — Theatrical:		
Released, less amortization	1,028	893
Completed and not released	249	60
In production	902	843
Development and pre-production	55	51
Film costs — Television:		
Released, less amortization	204	493
Completed and not released	40	191
In production	395	494
Development and pre-production	6	6
Total inventories and film costs [a]	6,092	6,152
Less: current portion of inventory [b]	(1,638)	(1,737)
Total noncurrent inventories and film costs	$ 4,454	$ 4,415

(a) Does not include $3.028 billion and $3.137 billion of net film library costs as of June 30, 2005 and December 31, 2004, respectively, which are included in intangible assets subject to amortization in the accompanying consolidated balance sheet.

(b) Current inventory as of June 30, 2005 and December 31, 2004, is comprised primarily of programming inventory at the Networks segment ($1.152 billion and $1.215 billion, respectively), books, magazines, paper and other merchandise at the Publishing segment ($230 million and $199 million, respectively), DVDs, and videocassettes at the Filmed Entertainment segment ($248 million and $318 million, respectively) and general merchandise at the AOL segment ($8 million and $5 million, respectively).

4. MANDATORILY CONVERTIBLE PREFERRED STOCK

At December 31, 2004, the Company had outstanding one share of its Series A mandatorily convertible preferred stock, par value $0.10 per share, face value of $1.5 billion (the "Series A Preferred Stock"), held by a trust for the benefit of Comcast, that was issued on March 31, 2003, as part of the TWE Restructuring. In accordance with the terms of the stock, on March 31, 2005, the Series A Preferred Stock was automatically converted into 83,835,883 shares of common stock of the Company, valued at $1.5 billion, and such amount was reclassified to equity in the accompanying consolidated balance sheet. Prior to the conversion, an estimate of the number of shares of common stock issuable upon the conversion of the Series A Preferred Stock based on the fair market value of the common stock at the end of the applicable period was included only in the calculation of the Company's diluted earnings per share. Following the issuance of the common stock upon the conversion of the Series A Preferred Stock, the shares issued are included in the calculation of both the basic and diluted earnings per share.

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5. SHAREHOLDERS' EQUITY

At June 30, 2005, shareholders' equity of Time Warner included 87.2 million shares of Series LMCN-V common stock and 4.604 billion shares of common stock (net of approximately 82 million shares of common stock held in treasury). The outstanding shares of common stock include the 83,835,883 shares of common stock issued upon conversion of the one share of Series A Preferred Stock on March 31, 2005. Time Warner is authorized to issue up to 750 million shares of preferred stock, up to 25 billion shares of common stock and up to 1.8 billion shares of additional classes of common stock, including Series LMCN-V common stock. Shares of Series LMCN-V common stock have substantially identical rights as shares of Time Warner's common stock, except that shares of Series LMCN-V common stock have limited voting rights and are nonredeemable. The holders of Series LMCN-V common stock are entitled to 1/100 of a vote per share on the election of directors and do not have any other voting rights, except as required by law or with respect to limited matters, including amendments to the terms of the Series LMCN-V common stock adverse to such holders. The Series LMCN-V common stock is not transferable, except in limited circumstances, and is not listed on any securities exchange. Each share of Series LMCN-V common stock is convertible into one share of Time Warner common stock at any time, assuming certain restrictive provisions have been met. During the first six months of 2005, approximately 18.5 million shares of LMCN-V common stock were converted into an equal number of shares of common stock.

6. GOODWILL

A summary of changes in the Company's goodwill for the six months ended June 30, 2005 by reportable segment is as follows (millions):

	December 31, 2004	Acquisitions & Adjustments [a]	Impairment [b]	June 30, 2005
AOL	$ 3,027	$ (9)	$ (24)	$ 2,994
Cable	1,921	(2)	—	1,919
Filmed Entertainment	5,218	(1)	—	5,217
Networks	20,626	1	—	20,627
Publishing	8,875	113	—	8,988
Total	$ 39,667	$ 102	$ (24)	$39,745

(a) Includes $111 million at the Publishing segment related to the preliminary purchase price allocation for the acquisition of the remaining ownership interest in Essence Communications Partners.

(b) Relates to the $24 million impairment charge of America Online Latin America, Inc. ("AOLA") goodwill in the first quarter of 2005.

7. SEGMENT INFORMATION

Time Warner classifies its business interests into five reportable segments: *AOL,* consisting principally of interactive services; *Cable,* consisting principally of interests in cable systems that provide video programming, high-speed data and Digital Phone services; *Filmed Entertainment,* consisting principally of feature film, television and home video production and distribution; *Networks,* consisting principally of cable television and broadcast networks; and *Publishing,* consisting principally of magazine and book publishing.

Information as to the operations of Time Warner in each of its business segments is set forth below based on the nature of the products and services offered. Time Warner evaluates performance based on several factors, of which the primary financial measure is operating income before noncash depreciation of tangible assets and amortization of intangible assets ("Operating Income (Loss) before Depreciation and Amortization"). Additionally, the Company has provided a summary of Operating Income (Loss) by segment.

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Three Months Ended June 30, 2005

	Subscription	Advertising	Content	Other	Total
			(millions)		
Revenues					
AOL	$1,734	$ 320	$ —	$ 43	$ 2,097
Cable	2,221	136	—	—	2,357
Filmed Entertainment	—	2	2,585	49	2,636
Networks	1,374	861	215	39	2,489
Publishing	421	742	169	170	1,502
Intersegment elimination	(132)	(41)	(153)	(11)	(337)
Total revenues	$5,618	$2,020	$2,816	$290	$10,744

Three Months Ended June 30, 2004

	Subscription	Advertising	Content	Other	Total
			(millions)		
Revenues					
AOL	$1,902	$ 221	$ —	$ 54	$ 2,177
Cable	1,990	126	—	—	2,116
Filmed Entertainment	—	2	3,043	46	3,091
Networks	1,303	817	224	34	2,378
Publishing	423	716	126	178	1,443
Intersegment elimination	(132)	(36)	(156)	(21)	(345)
Total revenues	$5,486	$1,846	$3,237	$291	$10,860

Six Months Ended June 30, 2005

	Subscription	Advertising	Content	Other	Total
			(millions)		
Revenues					
AOL	$ 3,508	$ 631	$ —	$ 91	$ 4,230
Cable	4,348	255	—	—	4,603
Filmed Entertainment	—	5	5,536	109	5,650
Networks	2,716	1,543	468	47	4,774
Publishing	802	1,313	297	330	2,742
Intersegment elimination	(264)	(80)	(402)	(26)	(772)
Total revenues	$11,110	$3,667	$5,899	$551	$21,227

Six Months Ended June 30, 2004

	Subscription	Advertising	Content	Other	Total
			(millions)		
Revenues					
AOL	$ 3,821	$ 435	$ —	$112	$ 4,368
Cable	3,924	235	—	—	4,159
Filmed Entertainment	—	5	5,962	111	6,078
Networks	2,537	1,451	508	77	4,573
Publishing	777	1,237	235	341	2,590
Intersegment elimination	(259)	(70)	(351)	(43)	(723)
Total revenues	$10,800	$3,293	$6,354	$598	$21,045

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Intersegment Revenues

In the normal course of business, the Time Warner segments enter into transactions with one another. The most common types of intersegment transactions include:

- The Filmed Entertainment segment generating Content revenue by licensing television and theatrical programming to the Networks segment;
- The Networks segment generating Subscription revenue by selling cable network programming to the Cable segment;
- The AOL, Cable, Networks and Publishing segments generating Advertising revenue by cross-promoting the products and services of all Time Warner segments; and
- The AOL segment generating Other revenue by providing the Cable segment's customers access to the AOL Transit Data Network for high-speed access to the Internet.

These intersegment transactions are recorded by each segment at estimated fair value as if the transactions were with third parties and, therefore, impact segment performance. While intersegment transactions are treated like third-party transactions to determine segment performance, the revenues (and corresponding expenses or assets recognized by the segment that is counterparty to the transaction) are eliminated in consolidation and, therefore, do not themselves impact consolidated results. Additionally, transactions between divisions within the same reporting segment (e.g., a transaction between HBO and Turner Broadcasting System, Inc. within the Networks segment) are eliminated in arriving at segment performance and, therefore, do not themselves impact segment results. Revenues recognized by Time Warner's segments on intersegment transactions are as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(millions)		(millions)	
Intersegment Revenues [a]				
AOL	$ 5	$ 15	$ 11	$ 30
Cable	10	12	20	26
Filmed Entertainment	136	146	378	334
Networks	163	152	321	295
Publishing	23	20	42	38
Total intersegment revenues	$337	$345	$772	$723

[a] Intersegment revenues include intercompany Advertising revenues of $41 million and $36 million for the three months ended June 30, 2005 and 2004, respectively, and $80 million and $70 million for the six months ended June 30, 2005 and 2004, respectively.

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	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(millions)		(millions)	
Operating Income (Loss) before Depreciation and Amortization				
AOL [a]	$ 558	$ 487	$ 1,076	$ 976
Cable	900	817	1,722	1,567
Filmed Entertainment	219	417	629	829
Networks [b]	635	661	1,422	1,396
Publishing [c]	348	357	523	527
Corporate [d]	(3,104)	(112)	(3,206)	(276)
Intersegment elimination	22	10	(7)	23
Total Operating Income (Loss) before Depreciation and Amortization	$ (422)	$2,637	$ 2,159	$5,042

(a) For the three and six months ended June 30, 2005, includes an approximate $5 million gain related to the sale of a building and a $3 million and $5 million gain, respectively, from the resolution of a previously contingent gain related to the 2004 sale of Netscape Security Solutions. For the six months ended June 30, 2005, includes a $24 million noncash impairment charge related to goodwill associated with AOLA. For the three and six months ended June 30, 2004, includes a $10 million impairment charge related to a building that was held for sale.

(b) For the six months ended June 30, 2004, includes an approximate $7 million loss related to the sale of the winter sports teams.

(c) For the six months ended June 30, 2005, includes an $8 million gain related to the collection of a loan made in conjunction with the Company's 2003 sale of Time Life Inc., which was previously fully reserved due to concerns about recoverability. For the six months ended June 30, 2004, includes an $8 million gain related to the sale of a building.

(d) For the three and six months ended June 30, 2005, includes $3 billion in legal reserves related to securities litigation. For the three and six months ended June 30, 2004, includes $14 million and $67 million, respectively, of costs associated with the relocation from the Company's former corporate headquarters, of which approximately $3 million of this charge was reversed in the first quarter of 2005, as updated estimates indicate certain costs would no longer be incurred.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(millions)		(millions)	
Depreciation of Property, Plant and Equipment				
AOL	$(143)	$(170)	$ (290)	$ (340)
Cable	(386)	(355)	(762)	(701)
Filmed Entertainment	(30)	(25)	(60)	(49)
Networks	(57)	(51)	(112)	(100)
Publishing	(31)	(33)	(66)	(63)
Corporate	(10)	(8)	(19)	(24)
Total depreciation of property, plant and equipment	$(657)	$(642)	$(1,309)	$(1,277)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(millions)		(millions)	
Amortization of Intangible Assets				
AOL	$ (47)	$ (41)	$ (94)	$ (83)
Cable	(19)	(19)	(39)	(37)
Filmed Entertainment	(52)	(53)	(104)	(106)
Networks	(8)	(8)	(12)	(11)
Publishing	(26)	(36)	(53)	(74)
Total amortization of intangible assets	$(152)	$(157)	$(302)	$(311)

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	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(millions)		(millions)	
Operating Income (Loss)				
AOL [a]	$ 368	$ 276	$ 692	$ 553
Cable	495	443	921	829
Filmed Entertainment	137	339	465	674
Networks [b]	570	602	1,298	1,285
Publishing [c]	291	288	404	390
Corporate [d]	(3,114)	(120)	(3,225)	(300)
Intersegment elimination	22	10	(7)	23
Total operating income (loss)	$(1,231)	$1,838	$ 548	$3,454

(a) For the three and six months ended June 30, 2005, includes an approximate $5 million gain related to the sale of a building and a $3 million and $5 million gain, respectively, from the resolution of a previously contingent gain related to the 2004 sale of Netscape Security Solutions. For the six months ended June 30, 2005, includes a $24 million noncash impairment charge related to goodwill associated with AOLA. For the three and six months ended June 30, 2004, includes a $10 million impairment charge related to a building that was held for sale.

(b) For the six months ended June 30, 2004, includes an approximate $7 million loss related to the sale of the winter sports teams.

(c) For the six months ended June 30, 2005, includes an $8 million gain related to the collection of a loan made in conjunction with the Company's 2003 sale of Time Life Inc., which was previously fully reserved due to concerns about recoverability. For the six months ended June 30, 2004, includes an $8 million gain related to the sale of a building.

(d) For the three and six months ended June 30, 2005, includes $3 billion in legal reserves related to securities litigation. For the three and six months ended June 30, 2004, includes $14 million and $67 million, respectively, of costs associated with the relocation from the Company's former corporate headquarters, of which approximately $3 million of this charge was reversed in the first quarter of 2005, as updated estimates indicate certain costs would no longer be incurred.

	June 30, 2005	December 31, 2004
	(millions)	
Assets		
AOL	$ 5,840	$ 7,175
Cable	43,187	43,165
Filmed Entertainment	16,815	17,924
Networks	33,430	33,042
Publishing	14,088	14,012
Corporate	9,227	7,840
Total assets	$122,587	$123,158

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8. BENEFIT PLANS

Time Warner and certain of its subsidiaries have both funded and unfunded noncontributory defined benefit pension plans covering a majority of domestic employees and, to a lesser extent, have various defined benefit plans covering international employees. Pension benefits are based on formulas that reflect the employees' years of service and compensation during their employment period and participation in the plans. Time Warner uses a December 31 measurement date for the majority of its plans. The components of the net periodic benefit costs recognized are as follows (millions):

	Domestic		International		Domestic		International	
	Three Months Ended June 30,				Six Months Ended June 30,			
	2005	2004	2005	2004	2005	2004	2005	2004
Service cost	$ 35	$ 32	$ 5	$ 7	$ 67	$ 60	$ 10	$ 12
Interest cost	43	40	8	7	85	78	17	15
Expected return on plan assets	(55)	(44)	(11)	(9)	(104)	(87)	(21)	(18)
Amounts amortized	16	15	2	—	29	27	4	2
Net periodic benefit costs	$ 39	$ 43	$ 4	$ 5	$ 77	$ 78	$ 10	$ 11
Contributions	$ 4	$ 3	$ 4	$ 5	$ 9	$ 8	$ 8	$ 10

After considering the funded status of the Company's defined benefit plans, movements in benchmark interest rates, investment performance and related tax consequences, the Company may choose to make contributions to its defined benefit pension plans. Currently, there are no minimum required contributions for domestic funded plans and no discretionary or noncash contributions are planned. For domestic unfunded plans, contributions will continue to be made to the extent benefits are paid and are included in the table above. Expected benefit payments for domestic unfunded plans for 2005 is approximately $19 million.

9. MERGER AND RESTRUCTURING COSTS

Merger Costs

In connection with the merger of America Online and Historic TW Inc. ("Historic TW") ("America Online-Historic TW Merger"), the Company reviewed its operations and implemented several plans to restructure the operations of both companies ("restructuring plans"). As part of the restructuring plans, the Company accrued a restructuring liability of approximately $1.031 billion during 2001. These restructuring accruals relate to costs to exit and consolidate certain activities of Historic TW, as well as costs to terminate employees across various Historic TW business units.

As of June 30, 2005, out of the remaining liability of $33 million, $9 million was classified as a current liability, with the remaining $24 million classified as a long-term liability in the accompanying consolidated balance sheet. Amounts are expected to be paid through 2012.

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Selected information relating to the restructuring costs included in the allocation of the cost to acquire Historic TW is as follows (millions):

	Employee Termination	Other Exit Costs	Total
Initial accruals	$619	$412	$1,031
Restructuring liability as of December 31, 2003	$ 28	$ 36	$ 64
Cash paid — 2004 [a]	(14)	(7)	(21)
Noncash reductions — 2004 [b]	(2)	(3)	(5)
Restructuring liability as of December 31, 2004	12	26	38
Cash paid — 2005 [c]	(4)	(1)	(5)
Restructuring liability as of June 30, 2005	$ 8	$ 25	$ 33

[a] Of the $21 million paid in 2004, $4 million was paid for the three months ended June 30, 2004 and $12 million was paid for the six months ended June 30, 2004.

[b] Noncash reductions represent adjustments to the restructuring accrual, with a corresponding reduction in goodwill, as actual costs related to employee terminations and other exit costs were less than originally estimated. Of the $5 million in noncash reductions in 2004, no reductions were made during the three and six months ended June 30, 2004.

[c] Of the $5 million paid in 2005, $2 million was paid during the second quarter.

Restructuring Costs

In addition to the costs of activities related to the America Online — Historic TW Merger, the Company has also recognized restructuring costs that are unrelated to business combinations and are expensed as incurred.

2005 Restructuring Costs

For the three and six months ended June 30, 2005, the Company incurred restructuring costs of $13 million and $30 million, respectively, primarily associated with the early retirement of certain senior executives at the Cable segment. These changes are part of TWC Inc.'s broader plans to simplify its organization and enhance its customer focus. TWC Inc. is in the process of executing this reorganization and expects to incur additional costs associated with this reorganization as it is implemented throughout 2005. For both the three and six months ended June 30, 2005, payments of $3 million have been made against this accrual.

As of June 30, 2005, out of the remaining liability of $27 million, $9 million was classified as a current liability, with the remaining $18 million classified as a long-term liability in the accompanying consolidated balance sheet. Amounts are expected to be paid through 2011.

2004 Restructuring Costs

For the year ended December 31, 2004, the Company incurred restructuring costs of $55 million related to employee terminations at the AOL segment. The number of employees terminated was 861 (770 domestic and 91 internationally). During the first quarter of 2005, the Company incurred additional restructuring costs of $3 million related to the AOL segment as a result of changes in estimates of previously established restructuring accruals.

As of June 30, 2005, out of the remaining liability of $7 million, $4 million was classified as a current liability, with the remaining $3 million classified as a long-term liability in the accompanying consolidated balance sheet. Amounts are expected to be paid through 2013.

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Selected information relating to the 2004 restructuring costs is as follows (millions):

	Employee Terminations
2004 accruals	$ 55
Cash paid – 2004 [a]	(5)
Remaining liability as of December 31, 2004	50
Net additional accrual	1
Cash paid – 2005 [b]	(44)
Remaining liability as of June 30, 2005	$ 7

[a] Of the $5 million paid in 2004, no payments were made for the three and six months ended June 30, 2004.
[b] Of the $44 million paid in 2005, $4 million was paid during the second quarter.

2003 Restructuring Costs

For the year ended December 31, 2003, the Company incurred restructuring costs related to various employee and contractual terminations of $109 million, including $52 million at the AOL segment, $21 million at the Networks segment, $21 million at the Publishing segment and $15 million at the Cable segment. Employee termination costs occurred across each of the segments and ranged from senior executives to line personnel. The number of employees terminated was 974 and all of the terminations had occurred by the end of the first quarter of 2004.

As of June 30, 2005, out of the remaining liability of $14 million, $6 million was classified as a current liability, with the remaining liability of $8 million classified as a long-term liability in the accompanying consolidated balance sheet. Amounts are expected to be paid through 2010.

Selected information relating to the 2003 restructuring costs is as follows (millions):

	Employee Terminations	Other Exit Costs	Total
2003 accruals	$ 64	$ 45	$109
Cash paid — 2003	(17)	(1)	(18)
Remaining liability as of December 31, 2003	47	44	91
Cash paid — 2004 [a]	(42)	(4)	(46)
Noncash reductions — 2004 [b]	(2)	(3)	(5)
Remaining liability as of December 31, 2004	3	37	40
Cash paid — 2005 [c]	(3)	(15)	(18)
Noncash reductions – 2005 [b]	—	(8)	(8)
Remaining liability as of June 30, 2005	$ —	$ 14	$ 14

[a] Of the $46 million paid in 2004, $5 million was paid for the three months ended June 30, 2004 and $45 million was paid for the six months ended June 30, 2004.
[b] Net noncash reductions reflect changes in estimates of previously established restructuring accruals. Of the $5 million noncash reductions in 2004, no reductions were made for the three and six months ended June 30, 2004. Of the $8 million noncash reductions in 2005, no reductions were made during the second quarter.
[c] Of the $18 million paid in 2005, $5 million was paid during the second quarter.

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2002 Restructuring Costs

During the year ended December 31, 2002, the Company incurred and accrued other restructuring costs of $327 million related to various contractual terminations and obligations, including certain contractual employee termination benefits. Of the $327 million of restructuring costs, $266 million related to the AOL segment, $46 million to the Corporate segment and $15 million to the Cable segment.

As of June 30, 2005, out of the remaining liability of $18 million, $6 million was classified as a current liability, with the remaining liability of $12 million classified as a long-term liability in the accompanying consolidated balance sheet. Amounts are expected to be paid through 2010.

Selected information relating to the 2002 restructuring costs is as follows (millions):

	Employee Terminations	Other Exit Costs	Total
Initial accruals	$ 92	$235	$327
Remaining liability as of December 31, 2003	$ 52	$ 10	$ 62
Cash paid — 2004 [a]	(17)	(6)	(23)
Noncash reductions — 2004 [b]	(12)	—	(12)
Remaining liability as of December 31, 2004	23	4	27
Cash paid — 2005 [c]	(7)	(2)	(9)
Remaining liability as of June 30, 2005	$ 16	$ 2	$ 18

[a] Of the $23 million paid in 2004, $4 million was paid for the three months ended June 30, 2004 and $17 million was paid for the six months ended June 30, 2004.
[b] During the second quarter of 2004, a $12 million severance accrual, initially established in 2002, was reversed in connection with the settlement of that accrual with the issuance of options to purchase stock of the Company. The obligation related to the option issuance was valued at $10 million and was reflected in shareholders' equity.
[c] Of the $9 million paid in 2005, $3 million was paid during the second quarter.

Other Charges

In connection with relocating its Corporate headquarters, the Company recorded certain exit costs at the date various floors of the former headquarters facility were no longer being occupied by employees of the Company. During the first six months of 2004, the Company recorded a $67 million charge ($14 million in the second quarter of 2004). In the third quarter of 2004, $14 million was reversed as a result of an agreement having been finalized to lease a portion of the space to the AOL segment. Of the net $53 million charge taken in 2004, approximately $26 million related to a noncash write-off of an intangible asset recorded in connection with the America Online — Historic TW Merger, representing the favorable terms of the lease relative to market rates at that time. In the first quarter of 2005, the Company reversed approximately $3 million of this charge, as updated estimates indicated certain costs would no longer be incurred. The remaining amount primarily related to the accrual of the expected loss on the sub-lease of the building, which is expected to be incurred over the remaining term of the lease of approximately nine years, and represents the present value of such obligations.

Through June 30, 2005, payments and other miscellaneous adjustments of $18 million were made against this liability. Of the remaining $6 million accrual at June 30, 2005, $2 million of the liability is classified as current, with the remaining liability of $4 million classified as long-term in the accompanying balance sheet.

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10. COMMITMENTS AND CONTINGENCIES

Securities Matters

Consolidated Securities Class Action

As of August 1, 2005, 31 shareholder class action lawsuits have been filed naming as defendants the Company, certain current and former executives of the Company and, in several instances, America Online. These lawsuits were filed in U.S. District Courts for the Southern District of New York, the Eastern District of Virginia, the Eastern District of Texas and the Southern District of Florida. The complaints purport to be made on behalf of certain shareholders of the Company and allege that the Company made material misrepresentations and/or omissions of material fact in violation of Section 10(b) of the Securities Exchange Act of 1934 (the "Exchange Act"), Rule 10b-5 promulgated thereunder, and Section 20(a) of the Exchange Act. Plaintiffs claim that the Company failed to disclose America Online's declining advertising revenues and that the Company and America Online inappropriately inflated advertising revenues in a series of transactions. Certain of the lawsuits also allege that certain of the individual defendants and other insiders at the Company improperly sold their personal holdings of Time Warner stock, that the Company failed to disclose that the America Online-Historic TW Merger was not generating the synergies anticipated at the time of the announcement of the merger and, further, that the Company inappropriately delayed writing down more than $50 billion of goodwill. The lawsuits seek an unspecified amount in compensatory damages. All of these lawsuits have been centralized in the U.S. District Court for the Southern District of New York for coordinated or consolidated pretrial proceedings (along with the federal derivative lawsuits and certain lawsuits brought under the Employee Retirement Income Security Act ("ERISA") described below) under the caption *In re AOL Time Warner Inc. Securities and "ERISA" Litigation* . Additional lawsuits filed by individual shareholders have also been consolidated for pretrial proceedings.

The Minnesota State Board of Investment ("MSBI") has been designated lead plaintiff for the consolidated securities actions and filed a consolidated amended complaint on April 15, 2003, adding additional defendants including additional officers and directors of the Company, Morgan Stanley & Co., Salomon Smith Barney Inc., Citigroup Inc., Banc of America Securities LLC and JP Morgan Chase & Co. Plaintiffs also added additional allegations, including that the Company made material misrepresentations in its registration statements and joint proxy statement-prospectus related to the America Online-Historic TW Merger and in its registration statements pursuant to which debt securities were issued in April 2001 and April 2002, allegedly in violation of Section 11 and Section 12 of the Securities Act of 1933. On July 14, 2003, the defendants filed a motion to dismiss the consolidated amended complaint. On May 5, 2004, the district court granted in part the defendants' motion, dismissing all claims with respect to the registration statements pursuant to which debt securities were issued in April 2001 and April 2002 and certain other claims against other defendants, but otherwise allowing the remaining claims against the Company and certain other defendants to proceed. On August 11, 2004, the court granted MSBI's motion to file a second amended complaint. On July 30, 2004, defendants filed a motion for summary judgment on the basis that plaintiffs cannot establish loss causation for any of their claims, and thus plaintiffs do not have any recoverable damages. That motion is pending. On April 8, 2005, MSBI moved for leave to file a third amended complaint to add certain new factual allegations and four additional individual defendants. That motion is also pending.

The Company has reached an agreement in principle with MSBI for the settlement of the consolidated securities actions. The tentative settlement is reflected in a Memorandum of Understanding dated as of July 29, 2005 between the lead plaintiff and the Company. Under the proposed settlement, $2.4 billion will be paid by Time Warner into a settlement fund for the members of the class represented in the action. In addition, the $150 million previously paid by Time Warner into a fund in connection with the settlement of the investigation by the DOJ will be made available to the class, and Time Warner will use its best efforts to have the $300 million it previously paid in connection with the settlement of its SEC investigation transferred to the settlement fund for the class. The proposed settlement is subject to completion of final documentation and preliminary and final court approval as well

as other conditions. At this time, there can be no assurance that these conditions will be met and that the settlement of the securities class action litigation will receive preliminary or final court approval. In connection with reaching the agreement in principle on the securities class action, the Company has established a reserve of $2.4 billion. The reserve established does not consider any future insurance recoveries under existing insurance policies because the Company cannot reliably estimate the amount of recovery at this time. Ernst & Young also has agreed to a settlement in this litigation matter and will pay $100 million.

Other Related Securities Litigation Matters

In addition to the reserve established in connection with the agreement in principle regarding the settlement of the consolidated securities class action, the Company has established an additional reserve totaling $600 million in connection with the remaining related securities litigation matters pending against the Company. This $600 million amount represents the Company's current best estimate of its potential financial exposure in these matters, which are described immediately below. The reserve established does not consider any future insurance recoveries under existing insurance policies because the Company cannot reliably estimate the amount of recovery at this time.

As of August 1, 2005, three putative class action lawsuits have been filed alleging violations of ERISA in the U.S. District Court for the Southern District of New York on behalf of current and former participants in the Time Warner Savings Plan, the Time Warner Thrift Plan and/or the TWC Savings Plan (the "Plans"). Collectively, these lawsuits name as defendants the Company, certain current and former directors and officers of the Company and members of the Administrative Committees of the Plans. The lawsuits allege that the Company and other defendants breached certain fiduciary duties to plan participants by, *inter alia,* continuing to offer Time Warner stock as an investment under the Plans, and by failing to disclose, among other things, that the Company was experiencing declining advertising revenues and that the Company was inappropriately inflating advertising revenues through various transactions. The complaints seek unspecified damages and unspecified equitable relief. The ERISA actions have been consolidated as part of the *In re AOL Time Warner Inc. Securities and "ERISA" Litigation* described above. On July 3, 2003, plaintiffs filed a consolidated amended complaint naming additional defendants, including TWE, certain current and former officers, directors and employees of the Company and Fidelity Management Trust Company. On September 12, 2003, the Company filed a motion to dismiss the consolidated ERISA complaint. On March 9, 2005, the court granted in part, and denied in part, the Company's motion to dismiss. The court dismissed two individual defendants and TWE for all purposes, dismissed other individuals with respect to claims plaintiffs had asserted involving the TWC Savings Plan, and dismissed all individuals who were named in a claim asserting that their stock sales had constituted a breach of fiduciary duty to the Plans. The Company filed an answer to the consolidated ERISA complaint on May 20, 2005. The Company intends to defend against these lawsuits vigorously.

As of August 1, 2005, 11 shareholder derivative lawsuits have been filed naming as defendants certain current and former directors and officers of the Company, as well as the Company as a nominal defendant. Three have been filed in New York State Supreme Court for the County of New York, four have been filed in the U.S. District Court for the Southern District of New York and four have been filed in the Court of Chancery of the State of Delaware for New Castle County. The complaints allege that defendants breached their fiduciary duties by causing the Company to issue corporate statements that did not accurately represent that America Online had declining advertising revenues, that the America Online-Historic TW Merger was not generating the synergies anticipated at the time of the announcement of the merger, and that the Company inappropriately delayed writing down more than $50 billion of goodwill, thereby exposing the Company to potential liability for alleged violations of federal securities laws. The lawsuits further allege that certain of the defendants improperly sold their personal holdings of Time Warner securities. The lawsuits request that (i) all proceeds from defendants' sales of Time Warner common stock, (ii) all expenses incurred by the Company as a result of the defense of the shareholder class actions discussed above and (iii) any improper salaries or payments, be returned to the Company. The four lawsuits filed in the Court of Chancery for the State of Delaware for New Castle County have been consolidated under the caption, *In re AOL Time Warner Inc. Derivative Litigation* . A consolidated complaint was filed on March 7, 2003 in that action, and on June 9, 2003, the Company filed a notice of motion to dismiss the consolidated complaint. On May 2, 2003, the three lawsuits filed in New York State Supreme Court for the County of New York were dismissed on *forum non conveniens* grounds and plaintiffs' time to appeal has expired. The four lawsuits pending in the U.S. District Court for the Southern District of New York have been centralized for coordinated or consolidated pre-trial proceedings with the securities and ERISA lawsuits described above under the caption *In re AOL Time Warner Inc. Securities*

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and "ERISA" Litigation . On October 6, 2004, plaintiffs filed an amended consolidated complaint in three of these four cases. The Company intends to defend against these lawsuits vigorously.

On July 1, 2003, *Stichting Pensioenfonds ABP v. AOL Time Warner Inc. et al.* was filed in the U.S. District Court for the Southern District of New York against the Company, current and former officers, directors and employees of the Company and Ernst & Young LLP. Plaintiff alleges that the Company made material misrepresentations and/or omissions of material fact in violation of Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder, Section 11, Section 12, Section 14(a) and Rule 14a-9 promulgated thereunder, Section 18 and Section 20(a) of the Exchange Act. The complaint also alleges common law fraud and negligent misrepresentation. The plaintiff seeks an unspecified amount of compensatory and punitive damages. This lawsuit has been consolidated for coordinated pretrial proceedings under the caption *In re AOL Time Warner Inc. Securities and "ERISA" Litigation* described above. On July 16, 2004, plaintiff filed an amended complaint adding certain institutional defendants, including Historic TW, and certain current directors of the Company. On November 22, 2004, the Company filed a motion to dismiss the complaint. The Company intends to defend against this lawsuit vigorously.

On November 11, 2002, Staro Asset Management, LLC filed a putative class action complaint in the U.S. District Court for the Southern District of New York on behalf of certain purchasers of Reliant 2.0% Zero-Premium Exchangeable Subordinated Notes for alleged violations of the federal securities laws. Plaintiff is a purchaser of subordinated notes, the price of which was purportedly tied to the market value of Time Warner stock. Plaintiff alleges that the Company made misstatements and/or omissions of material fact that artificially inflated the value of Time Warner stock and directly affected the price of the notes. Plaintiff seeks compensatory damages and/or rescission. This lawsuit has been consolidated for coordinated pretrial proceedings under the caption *In re AOL Time Warner Inc. Securities and "ERISA" Litigation* described above. The Company intends to defend against this lawsuit vigorously.

On April 14, 2003, *Regents of the University of California et al. v. Parsons et al.,* was filed in California Superior Court, County of Los Angeles, naming as defendants the Company, certain current and former officers, directors and employees of the Company, Ernst & Young LLP, Citigroup Inc., Salomon Smith Barney Inc. and Morgan Stanley & Co. Plaintiffs allege that the Company made material misrepresentations in its registration statements related to the America Online-Historic TW Merger and stock option plans in violation of Sections 11 and 12 of the Securities Act of 1933. The complaint also alleges common law fraud and breach of fiduciary duties under California state law. Plaintiffs seek disgorgement of alleged insider trading proceeds and restitution for their stock losses. Three related cases have been filed in California Supreme Court and have been coordinated in the County of Los Angeles. On January 26, 2004, certain individuals filed motions to dismiss for lack of personal jurisdiction. On September 10, 2004, the Company filed a motion to dismiss plaintiffs' complaints and certain individual defendants (who had not previously moved to dismiss plaintiffs' complaints for lack of personal jurisdiction) filed a motion to dismiss plaintiffs' complaints. On April 22, 2005, the court granted certain motions to dismiss for lack of personal jurisdiction and denied certain motions to dismiss for lack of personal jurisdiction. The Company intends to defend against these lawsuits vigorously.

On May 23, 2003, *Treasurer of New Jersey v. AOL Time Warner Inc. et al.* , was filed in the Superior Court of New Jersey, Mercer County, naming as defendants the Company, certain current and former officers, directors and employees of the Company, Ernst & Young LLP, Citigroup Inc., Salomon Smith Barney, Morgan Stanley, JP Morgan Chase and Banc of America Securities. The complaint is brought by the Treasurer of New Jersey and purports to be made on behalf of the State of New Jersey, Department of Treasury, Division of Investments (the "Division") and certain funds administered by the Division. Plaintiff alleges that the Company made material misrepresentations in its registration statements in violation of Sections 11 and 12 of the Securities Act of 1933. Plaintiff also alleges violations of New Jersey state law for fraud and negligent misrepresentation. Plaintiffs seek an unspecified amount of damages. On October 29, 2003, the Company moved to stay the proceedings or, in the alternative, dismiss the complaint. Also on October 29, 2003, all named individual defendants moved to dismiss the

complaint for lack of personal jurisdiction. The parties have agreed to stay this action and to coordinate discovery proceedings with the securities and ERISA lawsuits described above under the caption *In re AOL Time Warner Inc. Securities and "ERISA" Litigation* . The Company intends to defend against this lawsuit vigorously.

On July 18, 2003, *Ohio Public Employees Retirement System et al. v. Parsons et al.* was filed in Ohio, Court of Common Pleas, Franklin County, naming as defendants the Company, certain current and former officers, directors and employees of the Company, Citigroup Inc., Salomon Smith Barney Inc., Morgan Stanley & Co. and Ernst & Young LLP. Plaintiffs allege that the Company made material misrepresentations in its registration statements in violation of Sections 11 and 12 of the Securities Act of 1933. Plaintiffs also allege violations of Ohio law, breach of fiduciary duty and common law fraud. Plaintiffs seek disgorgement of alleged insider trading proceeds, restitution and unspecified compensatory damages. On October 29, 2003, the Company moved to stay the proceedings or, in the alternative, dismiss the complaint. Also on October 29, 2003, all named individual defendants moved to dismiss the complaint for lack of personal jurisdiction. On October 8, 2004, the court granted in part the Company's motion to dismiss plaintiffs' complaint; specifically, the court dismissed plaintiffs' common law claims but otherwise allowed plaintiffs' remaining statutory claims against the Company and certain other defendants to proceed. The Company intends to defend against this lawsuit vigorously.

On July 18, 2003, *West Virginia Investment Management Board v. Parsons et al.* was filed in West Virginia, Circuit Court, Kanawha County naming as defendants the Company, certain current and former officers, directors and employees of the Company, Citigroup Inc., Salomon Smith Barney Inc., Morgan Stanley & Co., and Ernst & Young LLP. Plaintiff alleges the Company made material misrepresentations in its registration statements in violation of Sections 11 and 12 of the Securities Act of 1933. Plaintiff also alleges violations of West Virginia law, breach of fiduciary duty and common law fraud. Plaintiff seeks disgorgement of alleged insider trading proceeds, restitution and unspecified compensatory damages. On May 27, 2004, the Company filed a motion to dismiss the complaint. Also on May 27, 2004, all named individual defendants moved to dismiss the complaint for lack of personal jurisdiction. The Company intends to defend against this lawsuit vigorously.

On January 28, 2004, *McClure et al. v. AOL Time Warner Inc. et al.* was filed in the District Court of Cass County, Texas (purportedly on behalf of several purchasers of Company stock) naming as defendants the Company and certain current and former officers, directors and employees of the Company. Plaintiffs allege that the Company made material misrepresentations in its registration statements in violation of Sections 11 and 12 of the Securities Act of 1933. Plaintiffs also allege breach of fiduciary duty and common law fraud. Plaintiffs seek unspecified compensatory damages. On May 8, 2004, the Company filed a general denial and a motion to dismiss for improper venue. Also on May 8, 2004, all named individual defendants moved to dismiss the complaint for lack of personal jurisdiction. The Company intends to defend against this lawsuit vigorously.

On February 24, 2004, *Commonwealth of Pennsylvania Public School Employees' Retirement System et al. v. Time Warner Inc. et al* . was filed in the Court of Common Pleas of Philadelphia County naming as defendants the Company, certain current and former officers, directors and employees of the Company, America Online, Historic TW, Morgan Stanley & Co., Inc., Citigroup Global Markets Inc., Banc of America Securities LLC, J.P. Morgan Chase & Co and Ernst & Young LLP. Plaintiffs had previously filed a request for a writ of summons notifying defendants of commencement of an action. Plaintiffs allege that the Company made material misrepresentations in its registration statements in violation of Sections 11 and 12 of the Securities Act of 1933. Plaintiffs also allege violations of Pennsylvania law, breach of fiduciary duty and common law fraud. The plaintiffs seek unspecified compensatory and punitive damages. Plaintiffs dismissed the four investment banks from the complaint in exchange for a tolling agreement. The remaining parties have agreed to stay this action and to coordinate discovery proceedings with the securities and ERISA lawsuits described above under the caption *In re AOL Time Warner Inc. Securities and "ERISA" Litigation* . Plaintiffs filed an amended complaint on June 14, 2005. The Company intends to defend against this lawsuit vigorously.

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On April 1, 2004, *Alaska State Department of Revenue et al. v. America Online, Inc. et al.* was filed in Superior Court in Juneau County, Alaska naming as defendants the Company, certain current and former officers, directors and employees of the Company, America Online, Historic TW, Morgan Stanley & Co., Inc., and Ernst & Young LLP. Plaintiffs allege that the Company made material misrepresentations in its registration statements in violation of Alaska law and common law fraud. The plaintiffs seek unspecified compensatory and punitive damages. On July 26, 2004, all named individual defendants moved to dismiss the complaint for lack of personal jurisdiction. On August 13, 2004, the Company filed a motion to dismiss plaintiffs' complaint. The Company intends to defend against this lawsuit vigorously.

On November 15, 2002, the California State Teachers' Retirement System filed an amended consolidated complaint in the U.S. District Court for the Central District of California on behalf of a putative class of purchasers of stock in Homestore.com, Inc. ("Homestore"). Plaintiff alleges that Homestore engaged in a scheme to defraud its shareholders in violation of Section 10(b) of the Exchange Act. The Company and two former employees of its America Online division were named as defendants in the amended consolidated complaint because of their alleged participation in the scheme through certain advertising transactions entered into with Homestore. Motions to dismiss filed by the Company and the two former employees were granted on March 7, 2003, and a final judgment of dismissal was entered on March 8, 2004. On April 7, 2004, plaintiff filed a notice of appeal in the Ninth Circuit Court of Appeals; that appeal was fully briefed as of January 10, 2005. The Company intends to defend against this lawsuit vigorously.

On April 30, 2004, a second amended complaint was filed in the U.S. District Court for the District of Nevada on behalf of a putative class of purchasers of stock in PurchasePro.com, Inc. ("PurchasePro"). Plaintiffs allege that PurchasePro engaged in a scheme to defraud its shareholders in violation of Section 10(b) of the Exchange Act. The Company and four former officers and employees were added as defendants in the second amended complaint and are alleged to have participated in the scheme through certain advertising transactions entered into with PurchasePro. Three similar putative class actions had previously been filed against the Company, America Online and certain former officers and employees, and have been consolidated with the Nevada action. On February 17, 2005, the Judge in the consolidated action granted the Company's motion to dismiss the second amended complaint with prejudice. On September 13, 2004, in a related matter, PurchasePro filed an adversary proceeding against the Company in the U.S. Bankruptcy Court for the District of Nevada alleging fraudulent conveyance and unjust enrichment in connection with PurchasePro warrants issued to the Company. On December 15, 2004, the Bankruptcy Court granted the Company's motion to dismiss the complaint without prejudice. On January 26, 2005, PurchasePro filed an amended complaint. On March 18, 2005, PurchasePro filed a second amended complaint, and on June 29, 2005, the Bankruptcy Court denied the Company's motion to dismiss the second amended complaint. The Company filed a motion for reconsideration on July 11, 2005. That motion is pending. The Company intends to defend against these lawsuits vigorously.

Government Investigations

As previously disclosed by the Company, the SEC and the DOJ had been conducting investigations into the accounting and disclosure practices of the Company. Those investigations focused on advertising transactions, principally involving the Company's America Online segment, the methods used by the America Online segment to report its subscriber numbers and the accounting related to the Company's interest in AOL Europe prior to January 2002.

The Company and its subsidiary, AOL, entered into a settlement with the DOJ in December 2004 that provided for a deferred prosecution arrangement for a two-year period. In addition, on March 21, 2005, the Company announced that the SEC has approved the Company's proposed settlement, which resolves the SEC's investigation of the Company.

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Under the terms of the settlement with the SEC, the Company agreed, without admitting or denying the SEC's allegations, to be enjoined from future violations of certain provisions of the securities laws and to comply with the cease-and-desist order issued by the SEC to AOL in May 2000. The settlement also required the Company to:

- Pay a $300 million penalty, which will be used for a Fair Fund, as authorized under the Sarbanes-Oxley Act;
- Adjust its historical accounting for Advertising revenues in certain transactions with Bertelsmann A.G. that were improperly or prematurely recognized, primarily in the second half of 2000, during 2001 and during 2002; as well as adjust its historical accounting for transactions involving three other AOL customers where there were Advertising revenues recognized in the second half of 2000 and during 2001;
- Adjust its historical accounting for its investment in and consolidation of AOL Europe; and
- Agree to the appointment of an independent examiner, who will either be or hire a certified public accountant. The independent examiner will review whether the Company's historical accounting for transactions with 17 counterparties identified by the SEC staff, principally involving online advertising revenues and including three cable programming affiliation agreements with related advertising elements, was in conformity with GAAP, and provide a report to the Company's audit and finance committee of its conclusions within 180 days of being engaged. The transactions that would be reviewed were entered into between June 1, 2000 and December 31, 2001, including subsequent amendments thereto, and involved online advertising and related transactions for which revenue was principally recognized before January 1, 2002.

The Company paid the $300 million penalty in March 2005; however, it will not be able to deduct the penalty for income tax purposes, be reimbursed or indemnified for such payment through insurance or any other source, or use such payment to setoff or reduce any award of compensatory damages to plaintiffs in related securities litigation pending against the Company. As described above, in connection with the proposed settlement of the primary securities class action, the Company has agreed to use its best efforts to have the $300 million transferred to the settlement fund for the class represented in the action. The historical accounting adjustments were reflected in the restatement of the Company's financial results for each of the years ended December 31, 2000 through December 31, 2003, which were included in the Company's 2004 Form 10-K.

The independent examiner has begun its review, which is expected to be completed at the end of the year. Depending on the independent examiner's conclusions, a further restatement might be necessary. It is also possible that, so long as there are unresolved issues associated with the Company's financial statements, the effectiveness of any registration statement of the Company or its affiliates may be delayed.

Other Matters

On August 18, 2004, The Saul Zaentz Company filed a complaint in California Superior Court, County of Los Angeles, against New Line Cinema Corporation, a wholly owned subsidiary of the Company ("New Line"), for alleged breach of contract, declaratory relief and other claims. New Line and plaintiff are parties to a license agreement concerning rights in and to literary works written by J.R.R. Tolkien titled *The Hobbit* and *The Lord of the Rings* . The complaint alleges, among other things, that New Line owes royalties to plaintiff based on a percentage of gross receipts received by New Line's international subdistributors from its motion picture "The Lord of the Rings: The Fellowship of the Rings." On September 27, 2004, New Line filed an answer and cross-complaint for breach of contract and declaratory relief against plaintiff. The Company has reached an agreement to settle the case on terms that will not have a material adverse impact on the Company's financial condition or results of operations.

Warner Bros. (South) Inc. ("WBS"), a wholly owned subsidiary of the Company, is litigating numerous tax cases in Brazil. WBS currently is the theatrical distribution licensee for Warner Bros. in Brazil and acts as a service provider to the Warner Bros. home video licensee. All of the ongoing tax litigation involves WBS' distribution activities prior to January 2004, when WBS conducted both theatrical and home video distribution. Much of the tax

litigation stems from WBS' position that in distributing videos to rental retailers, it was conducting a distribution service, subject to a municipal service tax, and not the "industrialization" or sale of videos, subject to Brazilian federal and state VAT-like taxes. Both the federal tax authorities and the State of Sao Paulo, where WBS is based, have challenged this position. In some additional tax cases, WBS, often together with other film distributors, is challenging the imposition of taxes on royalties remitted outside of Brazil and the constitutionality of certain taxes. The Company intends to defend all of these various tax cases vigorously, but is unable to predict the outcome of these suits.

As of August 1, 2005, 22 putative consumer class action suits have been filed in various state and federal courts naming as defendants the Company or America Online. Plaintiffs allege that America Online violated various consumer protection laws by charging members for services or goods without authorization, including unauthorized secondary accounts offered in connection with America Online's "Spin-Off a Second Account" ("SOSA") program, and/or by continuing to charge members for services after receiving requests for cancellation. Motions to dismiss have been denied in *O'Leary v. America Online, Inc.* , which was filed in the Circuit Court for St. Clair County, Illinois, and *White v. America Online, Inc.* , which was filed in the Circuit Court for Madison County, Illinois. Eleven class actions involving SOSA accounts have been transferred by the Judicial Panel on Multidistrict Litigation to the U.S. District Court for the Central District of California for consolidated or coordinated pretrial proceedings (*In re America Online Spin-Off Accounts Litigation*), and the Company's motion to dismiss that complaint has been denied. On January 5, 2004, the SOSA case pending in the Superior Court of Washington, Spokane County, titled *Dix v. ICT Group and America Online,* was dismissed without prejudice based on the forum selection clause set forth in the plaintiffs' Member Agreement with AOL. On February 17, 2005, the Washington Court of Appeals reversed the lower court's dismissal; the Company intends to file a motion for reconsideration of the Court of Appeals' decision. On October 12, 2004, the SOSA case pending in the Court of Common Pleas of Hamilton County, Ohio, titled *Robert Schwartz v. America Online, Inc.* , was dismissed based on the forum selection clause and that dismissal is now final. *McCall v America Online, Inc.* , the SOSA case which was pending in the Superior Court of Cape May County, New Jersey, has been voluntarily dismissed. America Online has filed or will file motions to dismiss in the remaining cases. On April 7, 2005, the Circuit Court for St. Clair County, Illinois entered orders that permit an amended filing and consolidation of several cases and preliminarily approve a proposed nationwide class settlement. The proposed settlement is immaterial to the Company. Plaintiff in the consolidated action has since obtained an injunction from the California district court that purports to bar the parties from seeking final approval of that settlement. America Online has filed an expedited appeal of this decision before the U.S. Court of Appeals for the Ninth Circuit, which is now pending.

On May 24, 1999, two former AOL Community Leader volunteers filed *Hallissey et al. v. America Online, Inc.* in the U.S. District Court for the Southern District of New York. This lawsuit was brought as a collective action under the Fair Labor Standards Act ("FLSA") and as a class action under New York state law against America Online and AOL Community, Inc. The plaintiffs allege that, in serving as Community Leader volunteers, they were acting as employees rather than volunteers for purposes of the FLSA and New York state law and are entitled to minimum wages. On December 8, 2000, defendants filed a motion to dismiss on the ground that the plaintiffs were volunteers and not employees covered by the FLSA. The motion to dismiss is pending. A related case was filed by several of the *Hallissey* plaintiffs in the U.S. District Court for the Southern District of New York alleging violations of the retaliation provisions of the FLSA. This case has been stayed pending the outcome of the *Hallissey* motion to dismiss. Three related class actions have been filed in state courts in New Jersey, California and Ohio, alleging violations of the FLSA and/or the respective state laws. The New Jersey and Ohio cases were removed to federal court and subsequently transferred to the U.S. District Court for the Southern District of New York for consolidated pretrial proceedings with *Hallissey.* The California action was remanded to California state court, and on January 6, 2004 the court denied plaintiffs' motion for class certification. Plaintiffs appealed the trial court's denial of their motion for class certification to the California Court of Appeals. On May 26, 2005, a three-justice panel of the California Court of Appeals unanimously affirmed the trial court's order denying class certification. The plaintiffs have filed a petition for review in the California Supreme Court. The Company intends to defend against these lawsuits

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vigorously. The Company is unable to predict the outcome of these suits or reasonably estimate a range of possible loss.

On January 17, 2002, Community Leader volunteers filed a class action lawsuit in the U.S. District Court for the Southern District of New York against the Company, America Online and AOL Community, Inc. under ERISA. Plaintiffs allege that they are entitled to pension and/or welfare benefits and/or other employee benefits subject to ERISA. In March 2003, plaintiffs filed and served a second amended complaint, adding as defendants the Company's Administrative Committee and the AOL Administrative Committee. On May 19, 2003, the Company, America Online and AOL Community, Inc. filed a motion to dismiss and the Administrative Committees filed a motion for judgment on the pleadings. Both of these motions are pending. The Company intends to defend against these lawsuits vigorously, but is unable to predict the outcome of these suits.

On October 7, 2003, *Kim Sevier and Eric M. Payne vs. Time Warner Inc. and Time Warner Cable Inc.* , a putative nationwide consumer class action, was filed in the U.S. District Court for the Southern District of New York, and on October 23, 2003, *Heidi D. Knight v. Time Warner Inc. and Time Warner Cable Inc* ., also a putative nationwide consumer class action, was filed in the same court. In each case, the plaintiffs allege that defendants unlawfully tie the provision of high-speed cable Internet service to leases of cable modem equipment, because they do not provide a discount to customers who provide their own cable modems, in violation of Section 1 of the Sherman Act and the New York Donnelly Act, and, further, that defendants' conduct resulted in unjust enrichment. On November 19, 2003, the court ordered plaintiffs' complaints to be consolidated. Plaintiffs filed their amended consolidated class action complaint on December 17, 2003, seeking compensatory damages, disgorgement, attorneys' fees and injunctive and declaratory relief. On February 6, 2004, the Company moved to compel arbitration and to stay the matter pending arbitration or, alternatively, to dismiss the case; the court denied this motion on April 19, 2004, and the Company filed a notice to appeal the decision on arbitration to the U.S. Court of Appeals for the Second Circuit. On March 7, 2005, the Second Circuit remanded the case to the district court so that the parties may seek approval of a proposed classwide settlement. The district court granted preliminary approval of the settlement on May 18, 2005. The proposed settlement is immaterial to the Company.

On June 16, 1998, plaintiffs in *Andrew Parker and Eric DeBrauwere, et al. v. Time Warner Entertainment Company, L.P. and Time Warner Cable* filed a purported nationwide class action in U.S. District Court for the Eastern District of New York claiming that TWE sold its subscribers' personally identifiable information and failed to inform subscribers of their privacy rights in violation of the Cable Communications Policy Act of 1984 and common law. The plaintiffs are seeking damages and declaratory and injunctive relief. On August 6, 1998, TWE filed a motion to dismiss, which was denied on September 7, 1999. On December 8, 1999, TWE filed a motion to deny class certification, which was granted on January 9, 2001 with respect to monetary damages, but denied with respect to injunctive relief. On June 2, 2003, the U.S. Court of Appeals for the Second Circuit vacated the District Court's decision denying class certification as a matter of law and remanded the case for further proceedings on class certification and other matters. On May 4, 2004, plaintiffs filed a motion for class certification, which the Company has opposed. Recently, this lawsuit has been settled in principle on terms that are immaterial to the Company.

In the normal course of business, the Company's tax returns are subject to examination by various domestic and foreign taxing authorities. Such examinations may result in future tax and interest assessments on the Company. In instances where the Company believes that it is probable that it will be assessed, it has accrued a liability. The Company does not believe that these liabilities are material, individually or in the aggregate, to its financial condition or liquidity. Similarly, the Company does not expect the final resolution of tax examinations to have a material impact on the Company's financial results.

The costs and other effects of pending or future litigation, governmental investigations, legal and administrative cases and proceedings (whether civil or criminal), settlements, judgments and investigations, claims and changes in those matters (including those matters described above), and developments or assertions by or against the Company

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relating to intellectual property rights and intellectual property licenses, could have a material adverse effect on the Company's business, financial condition and operating results.

11. ADDITIONAL FINANCIAL INFORMATION

Cash Flows

Additional financial information with respect to cash payments and receipts is as follows:

	Six Months Ended June 30,	
	2005	2004
	(millions)	
Cash payments made for interest	$(808)	$(847)
Interest income received	99	42
Cash interest expense, net	$(709)	$(805)
Cash payments made for income taxes	$(308)	$(292)
Income tax refunds received	47	25
Cash taxes, net	$(261)	$(267)

Interest Expense, Net

Interest expense, net, consists of:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(millions)		(millions)	
Interest income	$ 88	$ 45	$ 163	$ 94
Interest expense	(412)	(428)	(833)	(881)
Total interest expense, net	$(324)	$(383)	$(670)	$(787)

Other Income, Net

Other income, net, consists of:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(millions)		(millions)	
Investment gains, net	$ 982	$ 10	$1,005	$ 46
Gain (loss) on WMG option	(27)	—	53	—
Income on equity method investees	36	26	47	32
Losses on accounts receivable securitization programs	(9)	(4)	(16)	(9)
Miscellaneous	7	1	11	(5)
Total other income, net	$ 989	$ 33	$1,100	$ 64

TIME WARNER INC.
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Other Current Liabilities

Other current liabilities consist of:

	June 30, 2005	December 31, 2004
	(millions)	
Accrued expenses [a]	$6,619	$5,050
Accrued compensation	923	1,261
Accrued income taxes	131	157
Total other current liabilities	$7,673	$6,468

(a) At June 30, 2005, includes $3.150 billion in legal reserves related to securities litigation and the DOJ settlement. At December 31, 2004, amount includes $150 million in legal reserves related to the DOJ settlement.

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America Online, Inc. ("America Online"), Historic TW Inc. ("Historic TW"), Time Warner Companies, Inc. ("TW Companies") and Turner Broadcasting System, Inc. ("TBS" and, together with America Online, Historic TW and TW Companies, the "Guarantor Subsidiaries") are wholly-owned subsidiaries of Time Warner Inc. ("Time Warner"). Time Warner, America Online, Historic TW, TW Companies and TBS have fully and unconditionally, jointly and severally, and directly or indirectly, guaranteed all of the outstanding publicly traded indebtedness of each other. Set forth below are condensed consolidating financial statements of Time Warner, including each of the Guarantor Subsidiaries, presented for the information of each company's public debtholders. The following condensed consolidating financial statements present the results of operations, financial position and cash flows of (i) America Online, Historic TW, TW Companies and TBS (in each case, reflecting investments in its consolidated subsidiaries under the equity method of accounting), (ii) the direct and indirect non-guarantor subsidiaries of Time Warner and (iii) the eliminations necessary to arrive at the information for Time Warner on a consolidated basis. There are no restrictions on Time Warner's ability to obtain funds from any of its wholly-owned subsidiaries through dividends, loans or advances. During the second quarter of 2005, Time Warner transferred goodwill reported as part of the Time Warner Corporate legal entity to the respective divisional legal entities to conform to its segment reporting. The result of this transfer was to reduce goodwill at Time Warner by approximately $1.8 billion, with a corresponding increase in goodwill at Non-Guarantor Subsidiaries. These condensed consolidating financial statements should be read in conjunction with the accompanying consolidated financial statements of Time Warner.

Consolidating Statement of Operations
For The Three Months Ended June 30, 2005

	Time Warner	America Online	Historic TW	TW Companies	TBS	Non-Guarantor Subsidiaries	Eliminations	Time Warner Consolidated
					(millions)			
Revenues	$ —	$1,391	$ —	$ —	$ 290	$ 9,097	$ (34)	$10,744
Costs of revenues	—	(649)	—	—	(161)	(5,470)	31	(6,249)
Selling, general and administrative	(11)	(461)	(11)	(5)	(64)	(2,032)	3	(2,571)
Amortization of intangible assets	—	(8)	—	—	—	(144)	—	(152)
Legal reserves related to securities litigation	(3,000)	—	—	—	—	—	—	(3,000)
Restructuring costs	—	3	—	—	—	(14)	—	(11)
Gains (losses) on disposal of assets, net	—	10	—	—	—	(2)	—	8
Operating income (loss)	(3,011)	286	(11)	(5)	75	1,435	—	(1,231)
Equity in pretax income (loss) of consolidated subsidiaries	2,470	55	1,261	1,168	248	—	(5,202)	—
Interest income (expense), net	(111)	(3)	(22)	(191)	(20)	22	1	(324)
Other income (expense), net	14	934	(28)	—	32	136	(99)	989
Minority interest expense, net	—	—	—	—	—	(72)	—	(72)
Income (loss) before income taxes	(638)	1,272	1,200	972	335	1,521	(5,300)	(638)
Income tax benefit (provision)	317	(497)	(409)	(323)	(126)	(536)	1,891	317
Net income (loss)	$ (321)	$ 775	$ 791	$ 649	$ 209	$ 985	$ (3,409)	$ (321)

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For The Three Months Ended June 30, 2004

	Time Warner	America Online	Historic TW	TW Companies	TBS	Non-Guarantor Subsidiaries	Eliminations	Time Warner Consolidated
					(millions)			
Revenues	$ —	$1,558	$ —	$ —	$ 271	$ 9,097	$ (66)	$10,860
Costs of revenues	—	(812)	—	—	(148)	(5,437)	55	(6,342)
Selling, general and administrative	(12)	(514)	(12)	(6)	(61)	(1,913)	3	(2,515)
Amortization of intangible assets	—	(8)	—	—	—	(149)	—	(157)
Restructuring costs	—	2	—	—	—	—	—	2
Asset impairments	—	(10)	—	—	—	—	—	(10)
Operating income (loss)	(12)	216	(12)	(6)	62	1,598	(8)	1,838
Equity in pretax income (loss) of consolidated subsidiaries	1,588	35	1,381	1,196	334	—	(4,534)	—
Interest income (expense), net	(158)	(16)	(24)	(138)	(13)	(39)	5	(383)
Other income (expense), net	8	14	(2)	—	38	88	(113)	33
Minority interest expense, net	—	—	—	—	—	(62)	—	(62)
Income (loss) before income taxes and discontinued operations	1,426	249	1,343	1,052	421	1,585	(4,650)	1,426
Income tax benefit (provision)	(544)	(99)	(508)	(402)	(154)	(599)	1,762	(544)
Income (loss) before discontinued operations	882	150	835	650	267	986	(2,888)	882
Discontinued operations, net of tax	(105)	—	(105)	(105)	—	(105)	315	(105)
Net income (loss)	$ 777	$ 150	$ 730	$ 545	$ 267	$ 881	$(2,573)	$ 777

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Consolidating Statement of Operations
For The Six Months Ended June 30, 2005

	Time Warner	America Online	Historic TW	TW Companies	TBS	Non-Guarantor Subsidiaries	Eliminations	Time Warner Consolidated
					(millions)			
Revenues	$ —	$ 2,813	$ —	$ —	$ 551	$ 17,927	$ (64)	$ 21,227
Costs of revenues	—	(1,304)	—	—	(252)	(10,749)	56	(12,249)
Selling, general and administrative	(22)	(946)	(22)	(10)	(93)	(4,018)	12	(5,099)
Amortization of intangible assets	—	(16)	—	—	—	(286)	—	(302)
Legal reserves related to securities litigation	(3,000)	—	—	—	—	—	—	(3,000)
Restructuring costs	—	10	—	—	—	(33)	—	(23)
Asset impairments	—	—	—	—	—	(24)	—	(24)
Gains (losses) on disposal of assets, net	—	8	—	—	1	9	—	18
Operating income (loss)	(3,022)	565	(22)	(10)	207	2,826	4	548
Equity in pretax income (loss) of consolidated subsidiaries	4,086	72	2,528	2,228	604	—	(9,518)	—
Interest income (expense), net	(243)	(8)	(44)	(362)	(39)	25	1	(670)
Other income (expense), net	26	942	52	—	74	243	(237)	1,100
Minority interest expense, net	—	—	—	—	—	(131)	—	(131)
Income (loss) before income taxes	847	1,571	2,514	1,856	846	2,963	(9,750)	847
Income tax benefit (provision)	(205)	(576)	(901)	(643)	(331)	(1,077)	3,528	(205)
Net income (loss)	$ 642	$ 995	$1,613	$1,213	$ 515	$ 1,886	$(6,222)	$ 642

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Consolidating Statement of Operations
For The Six Months Ended June 30, 2004

	Time Warner	America Online	Historic TW	TW Companies	TBS	Non-Guarantor Subsidiaries	Eliminations	Time Warner Consolidated
					(millions)			
Revenues	$ —	$ 3,115	$ —	$ —	$ 498	$ 17,526	$ (94)	$ 21,045
Costs of revenues	—	(1,614)	—	—	(235)	(10,547)	83	(12,313)
Selling, general and administrative	(30)	(1,022)	(30)	(14)	(86)	(3,781)	3	(4,960)
Amortization of intangible assets	—	(17)	—	—	—	(294)	—	(311)
Restructuring costs	—	2	—	—	—	—	—	2
Asset impairments	—	(10)	—	—	—	—	—	(10)
Gains (losses) on disposal of assets, net	—	—	—	—	(7)	8	—	1
Operating income (loss)	(30)	454	(30)	(14)	170	2,912	(8)	3,454
Equity in pretax income (loss) of consolidated subsidiaries	2,948	36	2,514	2,038	724	—	(8,260)	—
Interest income (expense), net	(319)	(34)	(46)	(263)	(29)	(101)	5	(787)
Other income (expense), net	14	60	(3)	(1)	67	165	(238)	64
Minority interest expense, net	—	—	—	—	—	(118)	—	(118)
Income (loss) before income taxes, discontinued operations and cumulative effect of accounting change	2,613	516	2,435	1,760	932	2,858	(8,501)	2,613
Income tax benefit (provision)	(1,019)	(214)	(934)	(677)	(355)	(1,095)	3,275	(1,019)
Income (loss) before discontinued operations and cumulative effect of accounting change	1,594	302	1,501	1,083	577	1,763	(5,226)	1,594
Discontinued operations, net of tax	110	—	110	110	—	110	(330)	110
Income (loss) before cumulative effect of accounting change	1,704	302	1,611	1,193	577	1,873	(5,556)	1,704
Cumulative effect of accounting change, net of tax	34	34	—	—	—	34	(68)	34
Net income (loss)	$ 1,738	$ 336	$1,611	$1,193	$ 577	$ 1,907	$(5,624)	$ 1,738

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CONDENSED CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
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Consolidating Balance Sheet
June 30, 2005

	Time Warner	America Online	Historic TW	TW Companies	TBS	Non-Guarantor Subsidiaries	Eliminations	Time Warner Consolidated
					(millions)			
ASSETS								
Current assets								
Cash and equivalents	$ 6,966	$ 2	$ (2)	$ 66	$ 36	$ 524	$ —	$ 7,592
Restricted cash	—	150	—	—	—	—	—	150
Receivables, net	16	171	—	—	—	4,814	—	5,001
Inventories	—	4	—	—	4	1,630	—	1,638
Prepaid expenses and other current assets	54	125	25	—	9	793	—	1,006
Total current assets	7,036	452	23	66	49	7,761	—	15,387
Noncurrent inventories and film costs	—	—	—	—	—	4,454	—	4,454
Investments in amounts due to and from consolidated subsidiaries	80,981	1,030	76,162	63,523	17,740	—	(239,436)	—
Investments, including available-for-sale securities	22	158	268	—	368	4,187	(1,565)	3,438
Property, plant and equipment, net	560	952	—	—	133	11,555	—	13,200
Intangible assets subject to amortization, net	—	25	—	—	—	3,664	—	3,689
Intangible assets not subject to amortization	—	—	—	—	641	39,057	—	39,698
Goodwill	—	1,477	—	—	2,626	35,642	—	39,745
Other assets	1,098	284	619	—	23	1,955	(1,003)	2,976
Total assets	$89,697	$ 4,378	$77,072	$63,589	$21,580	$108,275	$(242,004)	$122,587
LIABILITIES AND SHAREHOLDERS' EQUITY								
Current liabilities								
Accounts payable	$ 9	$ 22	$ —	$ —	$ 1	$ 998	$ —	$ 1,030
Participations payable	—	—	—	—	—	2,284	—	2,284
Royalties and programming costs payable	—	16	—	—	—	1,152	—	1,168
Deferred revenue	—	313	—	—	—	1,286	—	1,599
Debt due within one year	1,000	79	—	—	—	109	—	1,188
Other current liabilities	3,441	863	76	147	96	3,160	(110)	7,673
Current liabilities of discontinued operations	—	—	—	—	—	40	—	40
Total current liabilities	4,450	1,293	76	147	97	9,029	(110)	14,982
Long-term debt	8,973	126	1,486	4,742	319	4,718	(1,003)	19,361
Debt due (from) to affiliates	(1,003)	—	—	—	1,647	1,003	(1,647)	—
Deferred income taxes	14,339	801	13,538	12,068	1,550	13,618	(41,575)	14,339
Deferred revenue	—	—	—	—	—	730	—	730
Other liabilities	318	56	966	156	247	3,934	(779)	4,898
Noncurrent liabilities of discontinued operations	—	—	—	—	—	7	—	7
Minority interests	—	—	—	—	—	6,988	(1,338)	5,650
Shareholders' equity								
Due (to) from Time Warner and subsidiaries	—	(2,720)	(2,654)	(4,932)	(4,395)	(13,184)	27,885	—
Other shareholders' equity	62,620	4,822	63,660	51,408	22,115	81,432	(223,437)	62,620
Total shareholders' equity	62,620	2,102	61,006	46,476	17,720	68,248	(195,552)	62,620
Total liabilities and shareholders' equity	$89,697	$ 4,378	$77,072	$63,589	$21,580	$108,275	$(242,004)	$122,587

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Consolidating Balance Sheet
December 31, 2004

	Time Warner	America Online	Historic TW	TW Companies	TBS	Non-Guarantor Subsidiaries	Eliminations	Time Warner Consolidated
					(millions)			
ASSETS								
Current assets								
Cash and equivalents	$ 5,568	$ 12	$ (1)	$ 84	$ (15)	$ 491	$ —	$ 6,139
Restricted cash	—	150	—	—	—	—	—	150
Receivables, net	30	201	—	(2)	(7)	5,290	—	5,512
Inventories	—	3	—	—	5	1,729	—	1,737
Prepaid expenses and other current assets	50	113	—	—	4	753	—	920
Total current assets	5,648	479	(1)	82	(13)	8,263	—	14,458
Noncurrent inventories and film costs	—	—	—	—	—	4,415	—	4,415
Investments in amounts due to and from consolidated subsidiaries	79,253	860	84,668	72,077	17,646	—	(254,504)	—
Investments, including available-for-sale securities	19	1,175	381	—	397	4,149	(1,418)	4,703
Property, plant and equipment, net	538	1,085	—	—	107	11,364	—	13,094
Intangible assets subject to amortization, net	—	38	—	—	—	3,854	—	3,892
Intangible assets not subject to amortization	—	—	—	—	641	39,015	—	39,656
Goodwill	1,795	1,477	—	—	2,795	33,600	—	39,667
Other assets	1,165	331	653	—	23	2,156	(1,055)	3,273
Total assets	$88,418	$5,445	$85,701	$72,159	$21,596	$106,816	$(256,977)	$123,158
LIABILITIES AND SHAREHOLDERS' EQUITY								
Current liabilities								
Accounts payable	$ 8	$ 96	$ —	$ —	$ 2	$ 1,233	$ —	$ 1,339
Participations payable	—	—	—	—	—	2,580	—	2,580
Royalties and programming costs payable	—	21	—	—	2	995	—	1,018
Deferred revenue	—	371	—	—	—	1,282	—	1,653
Debt due within one year	1,000	112	—	502	2	56	—	1,672
Other current liabilities	909	897	17	184	129	4,341	(9)	6,468
Current liabilities of discontinued operations	—	—	—	—	—	50	—	50
Total current liabilities	1,917	1,497	17	686	135	10,537	(9)	14,780
Long-term debt	10,024	154	1,483	4,752	320	5,026	(1,056)	20,703
Debt due (from) to affiliates	(1,056)	—	—	—	1,647	1,056	(1,647)	—
Deferred income taxes	14,943	(175)	15,118	13,349	1,849	15,198	(45,339)	14,943
Deferred revenue	—	2	—	—	—	747	—	749
Mandatorily convertible preferred stock	1,500	—	—	—	—	—	—	1,500
Other liabilities	319	65	689	—	13	3,074	—	4,160
Noncurrent liabilities of discontinued operations	—	—	20	—	—	18	—	38
Minority interests	—	—	—	—	—	6,981	(1,467)	5,514
Shareholders' equity								
Due (to) from Time Warner and subsidiaries	—	(454)	(1,544)	(4,700)	(3,963)	(23,018)	33,679	—
Other shareholders' equity	60,771	4,356	69,918	58,072	21,595	87,197	(241,138)	60,771
Total shareholders' equity	60,771	3,902	68,374	53,372	17,632	64,179	(207,459)	60,771
Total liabilities and shareholders' equity	$88,418	$5,445	$85,701	$72,159	$21,596	$106,816	$(256,977)	$123,158

TIME WARNER INC.
SUPPLEMENTARY INFORMATION
CONDENSED CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Unaudited)

Consolidating Statement of Cash Flows
For The Six Months Ended June 30, 2005

	Time Warner	America Online	Historic TW	TW Companies	TBS	Non-Guarantor Subsidiaries	Eliminations	Time Warner Consolidated
					(millions)			
OPERATIONS								
Net income (loss)	$ 642	$ 995	$ 1,613	$ 1,213	$ 515	$ 1,886	$(6,222)	$ 642
Adjustments for noncash and nonoperating items:								
Depreciation and amortization	19	267	—	—	16	1,309	—	1,611
Amortization of film costs	—	—	—	—	—	1,462	—	1,462
Asset impairments	—	—	—	—	—	24	—	24
Gain on investments and other assets, net	—	(930)	(52)	—	—	(92)	—	(1,074)
Excess (deficiency) of distributions over equity in pretax income of consolidated subsidiaries	(4,086)	(71)	(2,529)	(2,227)	(604)	—	9,517	—
Equity in income (losses) of investee companies, net of cash distributions	—	(2)	—	—	2	(33)	—	(33)
Legal reserves related to securities litigation	3,000	—	—	—	—	—	—	3,000
Changes in operating assets and liabilities, net of acquisitions	2,798	548	1,957	1,729	588	(881)	(8,897)	(2,158)
Adjustments relating to discontinued operations	—	—	—	—	—	(11)	—	(11)
Cash provided (used) by operations	2,373	807	989	715	517	3,664	(5,602)	3,463
INVESTING ACTIVITIES								
Investments and acquisitions, net of cash acquired	—	(4)	(18)	—	10	(246)	—	(258)
Advances to parents and consolidated subsidiaries	(52)	(35)	—	(4)	—	—	91	—
Capital expenditures and product development costs	(36)	(181)	—	—	(43)	(1,188)	—	(1,448)
Investment proceeds from available-for-sale-securities	—	940	—	—	—	36	—	976
Other investment proceeds	—	4	138	—	—	226	—	368
Cash provided (used) by investing activities	(88)	724	120	(4)	(33)	(1,172)	91	(362)
FINANCING ACTIVITIES								
Borrowings	—	—	—	—	—	1,203	—	1,203
Debt repayments	(1,000)	(1)	—	(500)	—	(1,536)	—	(3,037)
Change due to/from parent	(53)	(1,477)	(1,110)	(229)	(431)	(2,211)	5,511	—
Proceeds from exercise of stock options	158	—	—	—	—	—	—	158
Principal payments on capital leases	—	(63)	—	—	(2)	(2)	—	(67)
Other	8	—	—	—	—	87	—	95
Cash provided (used) by financing activities	(887)	(1,541)	(1,110)	(729)	(433)	(2,459)	5,511	(1,648)
INCREASE (DECREASE) IN CASH AND EQUIVALENTS	1,398	(10)	(1)	(18)	51	33	—	1,453
CASH AND EQUIVALENTS AT BEGINNING OF PERIOD	5,568	12	(1)	84	(15)	491	—	6,139
CASH AND EQUIVALENTS AT END OF PERIOD	$ 6,966	$ 2	$ (2)	$ 66	$ 36	$ 524	$ —	$ 7,592

TIME WARNER INC.
SUPPLEMENTARY INFORMATION
CONDENSED CONSOLIDATING FINANCIAL STATEMENTS — (Continued)
(Unaudited)

Consolidating Statement of Cash Flows
For The Six Months Ended June 30, 2004

	Time Warner	America Online	Historic TW	TW Companies	TBS	Non-Guarantor Subsidiaries	Eliminations	Time Warner Consolidated
					(millions)			
OPERATIONS								
Net income (loss)	$ 1,738	$ 336	$ 1,611	$ 1,193	$ 577	$ 1,907	$ (5,624)	$ 1,738
Adjustments for noncash and nonoperating items:								
Cumulative effect of accounting change, net of tax	(34)	(34)	—	—	—	(34)	68	(34)
Depreciation and amortization	24	315	—	—	12	1,237	—	1,588
Amortization of film costs	—	—	—	—	—	1,518	—	1,518
Asset impairments	—	10	—	—	—	—	—	10
Gain on investments and other assets, net	—	(48)	—	—	—	(6)	—	(54)
Excess (deficiency) of distributions over equity in pretax income of consolidated subsidiaries	(2,949)	(36)	(2,513)	(2,038)	(724)	—	8,260	—
Equity in (income) losses of investee companies, net of cash distributions	—	(5)	—	—	(5)	3	—	(7)
Changes in operating assets and liabilities, net of acquisitions	4,589	123	5,041	4,730	678	900	(17,524)	(1,463)
Adjustments relating to discontinued operations	—	—	—	—	—	10	—	10
Cash provided (used) by operations	3,368	661	4,139	3,885	538	5,535	(14,820)	3,306
INVESTING ACTIVITIES								
Investments and acquisitions, net of cash acquired	—	4	—	—	(5)	(212)	—	(213)
Advances to parents and consolidated subsidiaries	(22)	—	(2)	(5)	(42)	—	71	—
Capital expenditures and product development costs	(96)	(177)	—	—	(57)	(1,011)	—	(1,341)
Investment proceeds from available-for-sale-securities	—	37	—	—	—	3	—	40
Other investment proceeds	—	29	—	—	8	2,595	—	2,632
Cash provided (used) by investing activities	(118)	(107)	(2)	(5)	(96)	1,375	71	1,118
FINANCING ACTIVITIES								
Borrowings	—	—	—	—	—	1,489	—	1,489
Debt repayments	—	(136)	—	(28)	(450)	(2,251)	—	(2,865)
Change due to/from parent	22	(259)	(4,138)	(3,892)	(13)	(6,469)	14,749	—
Proceeds from exercise of stock options	224	—	—	—	—	—	—	224
Principal payments on capital leases	—	(98)	—	—	—	(4)	—	(102)
Other	16	—	—	—	—	—	—	16
Cash provided (used) by financing activities	262	(493)	(4,138)	(3,920)	(463)	(7,235)	14,749	(1,238)
INCREASE (DECREASE) IN CASH AND EQUIVALENTS	3,512	61	(1)	(40)	(21)	(325)	—	3,186
CASH AND EQUIVALENTS AT BEGINNING OF PERIOD	2,208	(39)	(1)	89	52	731	—	3,040
CASH AND EQUIVALENTS AT END OF PERIOD	$ 5,720	$ 22	$ (2)	$ 49	$ 31	$ 406	$ —	$ 6,226

Part II. Other Information

Item 1. Legal Proceedings.

Securities Matters

Reference is made to the shareholder class action lawsuits described on page 38 of the Company's Annual Report on Form 10-K for the year ended December 31, 2004 (the "2004 Form 10-K"). On April 8, 2005, the lead plaintiff, Minnesota State Board of Investment ("MSBI"), moved for leave to file a third amended complaint to add certain new factual allegations and four additional individual defendants. That motion is pending. The Company has reached an agreement in principle with MSBI for the settlement of the consolidated securities actions. The tentative settlement is reflected in a Memorandum of Understanding dated as of July 29, 2005 between the lead plaintiff and the Company. Under the proposed settlement, $2.4 billion will be paid by Time Warner into a settlement fund for the members of the class represented in the action. In addition, the $150 million previously paid by Time Warner into a fund in connection with the settlement of the investigation by the Department of Justice will be made available to the class, and Time Warner will use its best efforts to have the $300 million it previously paid in connection with the settlement of its SEC investigation transferred to the settlement fund for the class. The proposed settlement is subject to completion of final documentation and preliminary and final court approval as well as other conditions. At this time, there can be no assurance that these conditions will be met and that the settlement of the securities class action litigation will receive preliminary or final court approval. In connection with reaching the agreement in principle on the securities class action, the Company has established a reserve of $2.4 billion. The reserve established does not consider any future insurance recoveries under existing insurance policies because the Company cannot reliably estimate the amount of recovery at this time. Ernst & Young also has agreed to a settlement in this litigation matter and will pay $100 million.

Reference is made to the shareholder derivative, ERISA and individual securities matters described on pages 39-42 of the 2004 Form 10-K. In addition to the reserve established in connection with the agreement in principle regarding the settlement of the consolidated securities class action, the Company has established an additional reserve totaling $600 million in connection with these remaining related securities litigation matters pending against the Company. This $600 million amount represents the Company's current best estimate of its potential financial exposure in these matters. The reserve established does not consider any future insurance recoveries under existing insurance policies because the Company cannot reliably estimate the amount of recovery at this time.

Reference is made to the putative ERISA class action lawsuits described on page 39 of the 2004 Form 10-K. The Company filed an answer to the consolidated ERISA complaint on May 20, 2005.

Reference is made to the lawsuit filed by the Commonwealth of Pennsylvania Public School Employees' Retirement System et al. described on page 41 of the 2004 Form 10-K. Plaintiffs filed an amended complaint on June 14, 2005.

Reference is made to the lawsuits filed on behalf of purchasers of stock in PurchasePro.com, Inc. ("PurchasePro") described on page 42 of the 2004 Form 10-K. On June 29, 2005, the U.S. Bankruptcy Court for the District of Nevada denied the Company's motion to dismiss the second amended complaint filed by PurchasePro. The Company filed a motion for reconsideration on July 11, 2005. That motion is pending.

Other Matters

Reference is made to the lawsuit filed by The Saul Zaentz Company described on page 43 of the 2004 Form 10-K. The Company has reached an agreement to settle the case on terms that will not have a material adverse impact on the Company's financial condition or results of operations.

Reference is made to the putative consumer class action suits described on page 44 of the 2004 Form 10-K. Plaintiff in the consolidated action has since obtained an injunction from the California district court that purports to bar the parties from seeking final approval of that settlement. America Online has filed an expedited appeal of this decision before the U.S. Court of Appeals for the Ninth Circuit, which is now pending.

Reference is made to the lawsuit filed by Hallissey et al. described on page 44 of the 2004 Form 10-K. On May 26, 2005, a three-justice panel of the California Court of Appeals unanimously affirmed the trial court's order denying class certification. The Plaintiffs have filed a petition for review in the California Supreme Court.

Reference is made to the lawsuit filed by Kim Sevier and Eric M. Payne, a putative nationwide consumer class action, described on page 45 of the 2004 Form 10-K. The district court granted preliminary approval of the proposed classwide settlement on May 18, 2005.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Conversion of Shares of Series LMCN-V Common Stock

On May 25, 2005, the Company issued 9,070,395 shares of Common Stock upon conversion by wholly owned subsidiaries of Liberty Media Corporation (collectively, "Liberty") of an aggregate of 9,070,395 shares of the Company's Series LMCN-V Common Stock ("LMCN-V Stock") held by Liberty. As instructed by Liberty, the Company delivered the shares of Common Stock to a financial institution in connection with a stock loan arrangement entered into by Liberty. According to Liberty, the stock loan is related to its existing hedging activity. Pursuant to the stock loan agreement, the financial institution may return the shares to Liberty at any time and must return the shares to Liberty upon Liberty's request, at which time the shares of Common Stock must be converted back into LMCN-V Stock. During the term of the stock loan, Liberty has no right to vote the loaned Common Stock or direct the voting of the Common Stock by the party to which the stock is loaned and cannot, directly or indirectly, influence or attempt to influence the voting of the Common Stock by such party. As a result of this conversion, the number of issued and outstanding shares of Common Stock increased by 9,070,395 and the number of issued and outstanding shares of LMCN-V Stock decreased by the same amount. The calculations of the Company's basic and diluted earnings per share are not affected by this conversion because the issued and outstanding shares of LMCN-V Stock have historically been included in such per share calculations. In connection with the issuance of Common Stock upon conversion of the LMCN-V Stock, the Company relied on the exemption from registration afforded by Section 3(a)(9) of the Securities Act of 1933, as amended.

Company Purchases of Equity Securities

The following table provides information about purchases by the Company during the quarter ended June 30, 2005 of equity securities registered by the Company pursuant to Section 12 of the Exchange Act.

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased (1)	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans Programs	Maximum Number of Shares that May Yet Be Purchased Under or the Plans or Programs
April 1, 2005 — April 30, 2005	25,634	$17.50	0	0
May 1, 2005 — May 31, 2005	38	$17.66	0	0
June 1, 2005 — June 30, 2005	17,046	$17.02	0	0
Total	42,718	$17.31	0	0

(1) These shares represent shares of Common Stock that are tendered by employees to the Company to satisfy the employees' tax withholding obligations in connection with the vesting of awards of restricted stock. Such shares are repurchased by the Company based on their fair market value on the vesting date.

Item 4. Submission of Matters to a Vote of Security Holders.

The Annual Meeting of Stockholders of the Company was held on May 20, 2005 (the "2005 Annual Meeting"). The following matters were voted on at the 2005 Annual Meeting:

(i) The following individuals were elected directors of the Company for terms expiring in 2006:

	Votes For (1)	Votes Withheld	Broker Non-Votes
James L. Barksdale	4,093,912,219.31	79,611,394	0
Stephen F. Bollenbach	3,960,706,378.31	212,817,235	0
Stephen M. Case	3,896,828,910.31	276,694,703	0
Frank J. Caufield	4,087,224,688.31	86,298,925	0
Robert C. Clark	4,003,824,736.31	169,698,877	0
Jessica P. Einhorn	4,107,754,040.31	65,769,573	0
Miles R. Gilburne	3,991,427,479.31	182,096,134	0
Carla A. Hills	3,985,789,129.31	187,734,484	0
Reuben Mark	4,080,921,395.31	92,602,218	0
Michael A. Miles	4,052,699,288.31	120,824,325	0
Kenneth J. Novack	3,987,771,954.31	185,751,659	0
Richard D. Parsons	4,062,759,451.31	110,764,162	0
R.E. Turner	4,095,286,924.31	78,236,689	0
Francis T. Vincent, Jr.	3,970,960,938.31	202,562,675	0
Deborah C. Wright	4,107,303,282.31	66,220,331	0

(1) Fractional share numbers are due to the shares of Series LMCN-V Common Stock of the Company, each of which entitles the holder thereof to 1/100 of a vote per share on the election of directors.

(ii) Ratification of appointment of Ernst & Young LLP as independent auditors of the Company:

Votes For	Votes Against	Abstentions	Broker Non-Votes
3,991,273,712	154,803,467	26,483,280	0

(iii) Stockholder proposal regarding pay disparity:

Votes For	Votes Against	Abstentions	Broker Non-Votes
230,587,084	3,114,488,340	52,926,675	774,558,360

Item 6. Exhibits.

The exhibits listed on the accompanying Exhibit Index are filed or incorporated by reference as a part of this report and such Exhibit Index is incorporated herein by reference.

TIME WARNER INC.
SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

TIME WARNER INC.
(Registrant)

Date August 3, 2005

/s/ Wayne H. Pace
Wayne H. Pace
Executive Vice President and Chief Financial Officer

EXHIBIT INDEX

Pursuant to Item 601 of Regulation S-K

Exhibit No.	Description of Exhibit
10.1	Asset Purchase Agreement, dated as of April 20, 2005 (the "Asset Purchase Agreement"), between Adelphia Communications Corporation and Time Warner NY Cable LLC (incorporated herein by reference to Exhibit 99.1 to Time Warner's Current Report on Form 8-K dated April 20, 2005 and filed with the Securities and Exchange Commission on April 27, 2005 (the "April 27 Form 8-K")).
10.2	Letter Agreement, dated June 2, 2005, between Adelphia Communications Corporation and Time Warner NY Cable LLC, related to the extension of the deadline set forth in the Asset Purchase Agreement to file various documents with the U.S. Bankruptcy Court for the Southern District of New York (the "Bankruptcy Court").
10.3	Letter Agreement, dated June 17, 2005, between Adelphia Communications Corporation and Time Warner NY Cable LLC, related to the extension of the deadline set forth in the Asset Purchase Agreement to file various documents with the Bankruptcy Court.
10.4	Letter Agreement, dated June 24, 2005, between Adelphia Communications Corporation and Time Warner NY Cable LLC, related to, among other things, various conditions set forth in the Asset Purchase Agreement and the filing of the Second Amended Disclosure Statement with the Bankruptcy Court.
10.5	Amendment No. 1 to the Asset Purchase Agreement, dated June 24, 2005, between Adelphia Communications Corporation and Time Warner NY Cable LLC.
10.6	TWC Redemption Agreement, dated as of April 20, 2005 (the "TWC Redemption Agreement"), by and among Comcast Cable Communications Holdings, Inc., MOC Holdco II, Inc., TWE Holdings I Trust, TWE Holdings II Trust, Comcast Corporation, Cable Holdco II Inc., Time Warner Cable Inc., TWE Holding I LLC and Time Warner Inc. (incorporated herein by reference to Exhibit 99.2 to the April 27 Form 8-K).
10.7	TWE Redemption Agreement, dated as of April 20, 2005 (the "TWE Redemption Agreement"), by and among Comcast Cable Communications Holdings, Inc., MOC Holdco I, LLC, TWE Holdings I Trust, Comcast Corporation, Cable Holdco III LLC, Time Warner Entertainment Company, L.P., Time Warner Cable Inc. and Time Warner Inc. (incorporated herein by reference to Exhibit 99.3 to the April 27 Form 8-K).
10.8	Exchange Agreement, dated as of April 20, 2005 (the "Exchange Agreement"), by and among Comcast Corporation, Comcast Cable Communications Holdings, Inc., Comcast of Georgia, Inc., TCI Holdings, Inc., Time Warner Cable Inc., Time Warner NY Cable LLC and Urban Cable Works of Philadelphia, L.P. (incorporated herein by reference to Exhibit 99.4 to the April 27 Form 8-K).
10.9	Amendment Number 2, dated as of April 20, 2005, to the Tolling and Optional Redemption Amendment dated as of September 24, 2004, as amended by Amendment Number 1 dated as of February 17, 2005 (the "Tolling Agreement"), by and among Comcast Cable Communications Holdings, Inc., MOC Holdco II, Inc., TWE Holdings I Trust, TWE Holdings II Trust, Comcast Corporation, Cable Holdco Inc., Time Warner Cable Inc. and Time Warner Inc. (incorporated herein by reference to Exhibit 99.5 to the April 27 Form 8-K).
10.10	Letter Agreement, dated May 10, 2005, among Comcast Corporation, Time Warner Cable Inc. and TWE

Exhibit No.	Description of Exhibit
	Holdings II Trust, related to the extension of various deadlines set forth in the Tolling Agreement.
10.11	Letter Agreement, dated June 1, 2005, among Cable Holdco Inc., Cable Holdco II Inc., Cable Holdco III LLC, Comcast Corporation, Comcast Cable Communications Holdings, Inc., Comcast of Georgia, Inc., MOC Holdco I, LLC, MOC Holdco II, Inc., TCI Holdings, Inc., Time Warner Inc., Time Warner Cable Inc., Time Warner NY Cable LLC, Time Warner Entertainment Company, L.P., TWE Holdings I LLC, TWE Holdings I Trust, TWE Holdings II Trust and Urban Cable Works of Philadelphia, L.P., related to the amendment of various provisions of the Tolling Agreement, the TWC Redemption Agreement, the TWE Redemption Agreement and the Exchange Agreement.
10.12	Alternate Tolling and Optional Redemption Agreement, dated as of May 31, 2005, among Comcast Cable Communications Holdings, Inc., MOC Holdco II, Inc., TWE Holdings II Trust, Cable Holdco Inc., Time Warner Cable Inc. and the other parties named therein.
10.13	TKCCP Agreement, dated as of April 20, 2005, by and between Time Warner Cable Inc. and Comcast Corporation (incorporated herein by reference to Exhibit 99.6 to the April 27 Form 8-K).
10.14	Contribution Agreement, dated as of April 20, 2005, between Time Warner NY Cable LLC and American Television and Communications Corporation (incorporated herein by reference to Exhibit 99.7 to the April 27 Form 8-K).
10.15	Form of By-laws of Time Warner Cable Inc., as proposed to be amended (incorporated herein by reference to Exhibit 99.8 to the April 27 Form 8-K).
10.16	Form of Amended and Restated Certificate of Incorporation of Time Warner Cable Inc., as proposed to be amended (incorporated herein by reference to Exhibit 99.9 to the April 27 Form 8-K).
10.17	Parent Agreement, dated as of April 20, 2005, among Time Warner Cable Inc., Time Warner NY Cable LLC and Adelphia Communications Corporation (incorporated herein by reference to Exhibit 99.10 to the April 27 Form 8-K).
10.18	Letter Agreement, dated April 20, 2005, among Time Warner NY Cable LLC, Comcast Corporation and Adelphia Communications Corporation, related to the requirement of Time Warner NY Cable LLC, in certain circumstances, to acquire from Adelphia those systems that otherwise would have been acquired by Comcast (incorporated herein by reference to Exhibit 99.11 to the April 27 Form 8-K).
10.19	Shareholder Agreement, dated as of April 20, 2005, between Time Warner Inc. and Time Warner Cable Inc. (incorporated herein by reference to Exhibit 99.12 to the April 27 Form 8-K).
10.20	First Amendment, dated April 28, 2005, to Employment Agreement between Time Warner Inc. and Wayne H. Pace (incorporated herein by reference to Exhibit 10.1 to Time Warner's Current Report on Form 8-K dated April 28, 2005).
31.1	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, with respect to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2005.
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, with respect to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2005.
32	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, with respect to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2005. †

† This certification will not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (15 U.S.C. 78r), or otherwise subject to the liability of that section. Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act or Securities Exchange Act, except to the extent that the Company specifically incorporates it by reference.

EXHIBIT 10.2

Time Warner NY Cable LLC
c/o Time Warner Cable Inc.
290 Harbor Drive
Stamford, CT 06902-6732

June 2, 2005

Adelphia Communications Corporation
5619 DTC Parkway
Greenwood Village, CO 80111
Attn: Brad Sonnenberg

Ladies and Gentlemen:

Reference is made to the Asset Purchase Agreement between Time Warner NY Cable LLC, a Delaware limited liability company ("TWNY"), and Adelphia Communications Corporation, a Delaware corporation ("Adelphia"), dated as of April 20, 2005 (the "TWNY Purchase Agreement"). Capitalized terms used but not otherwise defined herein shall have the respective meanings ascribed to them in the TWNY Purchase Agreement.

Adelphia and TWNY hereby agree to extend until June 20, 2005 the deadline set forth in the first sentence of Section 5.13(a) of the TWNY Purchase Agreement to file with the Bankruptcy Court the Disclosure Statement, the Disclosure Statement Motion and the Plan.

This letter agreement may be executed in one or more counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same letter agreement.

This letter agreement shall be governed by and construed in accordance with the TWNY Purchase Agreement.

Please confirm your agreement with the foregoing by signing and returning a copy of this agreement to the undersigned.

Very truly yours,

TIME WARNER NY CABLE LLC

By: /s/ Satish R. Adige
Name: Satish R. Adige
Title: Senior Vice President, Investments

Agreed and Acknowledged:

ADELPHIA COMMUNICATIONS CORPORATION

By: /s/ Brad M. Sonnenberg
Name: Brad M. Sonnenberg
Title: Executive Vice President and General Counsel

Cc:

Legal Department
Time Warner Cable Inc.
Attn: General Counsel

Time Warner Inc.
Attn: General Counsel

Paul, Weiss, Rifkind, Wharton & Garrison LLP Attn: Kelley D. Parker and Robert B. Schumer

Sullivan & Cromwell LLP
Attn: Alexandra D. Korry

EXHIBIT 10.3

Time Warner NY Cable LLC
c/o Time Warner Cable Inc.
290 Harbor Drive
Stamford, CT 06902-6732

June 17, 2005

Adelphia Communications Corporation
5619 DTC Parkway
Greenwood Village, CO 80111
Attn: Brad Sonnenberg

Ladies and Gentlemen:

Reference is made to the Asset Purchase Agreement between Time Warner NY Cable LLC, a Delaware limited liability company ("TWNY"), and Adelphia Communications Corporation, a Delaware corporation ("Adelphia"), dated as of April 20, 2005 (the "TWNY Purchase Agreement"). Capitalized terms used but not otherwise defined herein shall have the respective meanings ascribed to them in the TWNY Purchase Agreement.

Adelphia and TWNY hereby agree to extend until June 24, 2005 the deadline set forth in the first sentence of Section 5.13(a) of the TWNY Purchase Agreement to file with the Bankruptcy Court the Disclosure Statement, the Disclosure Statement Motion and the Plan.

This letter agreement may be executed in one or more counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same letter agreement.

This letter agreement shall be governed by and construed in accordance with the TWNY Purchase Agreement.

Please confirm your agreement with the foregoing by signing and returning a copy of this agreement to the undersigned.

Very truly yours,

TIME WARNER NY CABLE LLC

By: /s/ Satish R. Adige

Name: Satish R. Adige
Title: Senior Vice President, Investments

Agreed and Acknowledged:

ADELPHIA COMMUNICATIONS CORPORATION

By: /s/ Brad M. Sonnenberg

Name: Brad Sonnenberg
Title: EVP/GC

Cc:

Legal Department
Time Warner Cable Inc.
Attn: General Counsel

Time Warner Inc.
Attn: General Counsel

Paul, Weiss, Rifkind, Wharton & Garrison LLP Attn: Kelley D. Parker and Robert B. Schumer

Sullivan & Cromwell LLP
Attn: Alexandra D. Korry

EXHIBIT 10.4

Time Warner NY Cable LLC
c/o Time Warner Cable Inc.
290 Harbor Drive
Stamford, CT 06902-6732

June 24, 2005

Adelphia Communications Corporation
5619 DTC Parkway
Greenwood Village, CO 80111
Attn: Brad Sonnenberg

Ladies and Gentlemen:

Reference is made to the Asset Purchase Agreement between Time Warner NY Cable LLC, a Delaware limited liability company ("TWNY"), and Adelphia Communications Corporation, a Delaware corporation ("Adelphia"), dated as of April 20, 2005, as amended on the date hereof (the "TW Purchase Agreement"). Capitalized terms used but not otherwise defined herein shall have the respective meanings ascribed to them in the TW Purchase Agreement.

1. Timing of Effectiveness of the Plan and the Closing. The parties hereto agree that the condition set forth in Section 6.1(a) of the TW Purchase Agreement with respect to the effectiveness of the Plan, shall be satisfied by the Plan becoming effective contemporaneously with the Closing.

2. Assumption of Effectiveness. In determining whether Sections 6.1(f), 6.2(a), 6.2(b) (except for covenants to the extent related to Adelphia's obligations to use commercially reasonable efforts to fulfill the conditions precedent to its obligations under the TW Purchase Agreement), 6.2 (d) (to the extent relating to 6.2(a) and 6.2(b) (except for covenants to the extent related to Adelphia's obligations to use commercially reasonable efforts to fulfill the conditions precedent to its obligations under the TW Purchase Agreement)) and 6.2(e) of the TW Purchase Agreement have been satisfied, the parties hereto shall assume that the Plan is effective in accordance with its terms and shall assume that any other plan of reorganization relating to any Managed Cable Entity or any other Transferred Asset as to which the only condition to its effectiveness that has not been satisfied or waived is the Closing is effective in accordance with its terms.

3. Consent to Plan and Disclosure Statement. TWNY hereby acknowledges that the Plan, all exhibits attached thereto, the Disclosure Statement (except for the sections of the Disclosure Statement describing the Plan to the extent such description is inconsistent with the Plan; it being understood that

TWNY shall promptly following the date hereof inform Adelphia of any such inconsistency it identifies) and the Disclosure Statement Motion (each of which is attached hereto) are acceptable in form and substance to TWNY and otherwise satisfy the requirements of the fourth sentence of Section 5.13(a) of the TW Purchase Agreement to the extent relating to the Plan, the exhibits attached thereto, the Disclosure Statement (except for the sections of the Disclosure Statement describing the Plan to the extent such description is inconsistent with the Plan) and the Disclosure Statement Motion. TWNY consents to the filing of such documents with the Bankruptcy Court. Adelphia hereby agrees to waive the conditions set forth in Sections 13.01(f), 13.01(g) and 13.02(b) of the Plan in order to effect the confirmation or effectiveness, as applicable, of the Plan, if so requested by TWNY, if the failure to so waive such condition(s) would reasonably be expected to materially delay or impair the Transaction. Adelphia hereby acknowledges and agrees that with respect to the conditions set forth in Sections 13.01(a), 13.01(b) and 13.01 (c) of the Plan, if so requested by TWNY, it will exercise its discretion in a reasonable manner. The foregoing shall not prejudice either party's position with respect to Adelphia's waiver obligations, if any, in respect of any provision of Sections 13.01 and 13.02 of the Plan that is not addressed in this paragraph.

4. Reservation of Rights. It is understood and agreed that the filing of the Plan and TWNY's consent thereto are without prejudice to Adelphia's rights to amend the Plan and TWNY's right to consent or to withhold consent to any amendment (and the absence or presence of any provision of the Plan as filed shall not be taken into account in determining such rights of Adelphia or TWNY), in each case, in accordance with applicable provisions of the TW Purchase Agreement.

5. Issuance of Parent Capital Stock. TWNY acknowledges that in connection with the Transaction it currently intends to cause Parent to effect a stock dividend and distribute approximately 999,999 shares of Parent Capital Stock in respect of each share of Parent Capital Stock outstanding as of the record date for such dividend. TWNY further acknowledges and agrees that in the event that the number of shares of Parent Capital Stock to be issued at the Closing is changed it shall use its commercially reasonable efforts to cause the initial pricing of such shares to be in a reasonable range in light of the current intended share price and then prevailing market conditions.

This letter agreement may be executed in one or more counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same letter agreement.

This letter agreement shall be governed by and construed in accordance with the TW Purchase Agreement.

Please confirm your agreement with the foregoing by signing and returning a copy of this agreement to the undersigned.

Very truly yours,

TIME WARNER NY CABLE LLC

By: /s/ Satish R. Adige
Name: Satish R. Adige
Title: Sr. V.P., Investments

Agreed and Acknowledged:

ADELPHIA COMMUNICATIONS CORPORATION

By: /s/ Brad M. Sonnenberg
Name: Brad Sonnenberg
Title: Executive Vice President, General Counsel and Secretary

Acknowledged and approved:

COMCAST CORPORATION

By: /s/ Robert S. Pick
Name: Robert S. Pick
Title: Senior Vice President

EXHIBIT 10.5

AMENDMENT NO. 1 TO ASSET PURCHASE AGREEMENT BETWEEN ADELPHIA COMMUNICATIONS CORPORATION AND TIME WARNER NY CABLE LLC

This Amendment, dated June 24, 2005 (this "Amendment"), amends the Asset Purchase Agreement, between Adelphia Communications Corporation ("Seller") and Time Warner NY Cable LLC ("Buyer"), dated as of April 20, 2005 (the "TW Purchase Agreement"). Capitalized terms used but not otherwise defined herein shall have the respective meanings ascribed to them in the TW Purchase Agreement.

WHEREAS, the parties hereto desire to amend the TW Purchase Agreement pursuant to Section 9.2 thereof to clarify certain provisions contained therein.

NOW, THEREFORE, in consideration of the foregoing, the parties hereto, intending to be legally bound, hereby agree as follows:

1. Section 9.5 of the TW Purchase Agreement shall be amended by inserting immediately following the phrase "cause each and every Debtor, including each that is an Asset Transferring Subsidiary hereunder," the phrase, "but in each case excluding any Debtor that is a Transferred Joint Venture Entity (as such term is defined in the Friendco Purchase Agreement)", and adding at the end of such Section the sentence, "Nothing in this Section 9.5 is intended to supersede the provisions of paragraphs 4 and 5 of the Bankruptcy Court's order of April 21, 2005 entitled `Supplemental Order.'"

2. Section 5.13(b) of the TW Purchase Agreement shall be amended by: (a) deleting the phrase: "70 days" in the first sentence of such Section and substituting for it the phrase: "80 days"; (b) deleting the word: "seventieth" in each place it appears in the first sentence of such Section and substituting for it, in each case, the word: "eightieth"; (c) deleting the phrase: "40 days" in the second sentence of such Section and substituting for it the phrase: "50 days"; and (d) deleting the phrase: "20 days" in the third sentence of such Section and substituting for it the phrase, "30 days".

3. Section 5.13(c) of the TW Purchase Agreement shall be amended by deleting the phrase: "70 days" in the first sentence of such Section and substituting for it the phrase: "80 days".

4. Section 5.13(d) of the TW Purchase Agreement shall be amended by: (a) deleting the phrase: "70 days" in the second sentence of such Section and

substituting for it the phrase: "80 days" and (b) deleting the word:
"seventieth" in the second sentence of such Section and substituting for it the word: "eightieth".

Except as specifically amended by this Amendment, the TW Purchase Agreement will remain in full force and effect and is hereby ratified and confirmed. This Amendment shall be construed as one with the TW Purchase Agreement, and the TW Purchase Agreement shall, where the context requires, be read and construed so as to incorporate this Amendment.

This Amendment may be executed in one or more counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same Amendment.

This Amendment shall be governed by and construed in accordance with the TW Purchase Agreement.

IN WITNESS WHEREOF, the parties have executed or caused this Amendment to be executed as of the date first written above.

ADELPHIA COMMUNICATIONS CORPORATION

By: /s/ Brad Sonnenberg
Name: Brad Sonnenberg
Title: Executive Vice President, General Counsel and Secretary

TIME WARNER NY CABLE LLC

By: /s/ Satish R. Adige
Name: Satish R. Adige
Title: Sr. V.P., Investments

Acknowledged and approved:

COMCAST CORPORATION

By: /s/ Robert S. Pick
Name: Robert S. Pick
Title: Senior Vice President

EXHIBIT 10.10

TIME WARNER CABLE INC.
290 HARBOR DRIVE
STAMFORD, CT 06902

May 10, 2005

COMCAST CORPORATION
1500 Market Street
Philadelphia, PA 19102
Attention: Larry Smith

TWE HOLDINGS II TRUST
801 West Street, 2nd Floor
Wilmington, DE 19801
Attention: Edith E. Holiday

Ladies and Gentlemen:

Reference is made to that certain Tolling and Optional Redemption Agreement, dated as of September 24, 2004, as amended from time to time (the "AGREEMENT"), by and among Comcast Corporation, a Pennsylvania corporation, Time Warner Cable Inc., a Delaware corporation, TWE Holdings II Trust, a Delaware statutory trust, and the other parties named therein. Capitalized terms used herein and not otherwise defined shall have the respective meanings assigned to them in the Agreement.

The parties hereto agree on behalf of themselves and their respective Affiliates that the (i) first 20 day period referred to in the second sentence of Section 7.20(a) of the Agreement shall be extended to 23 days, (ii) 15 day period referred to in the first sentence of Section 7.20(c) of the Agreement (as previously extended by the parties to 20 days) shall be further extended to 23 days, and (iii) 15 day period referred to in the second sentence of Section 7.20(d) of the Agreement shall be extended to 23 days.

Any amendment of this letter agreement must be in writing. This letter agreement may be executed in several counterparts, each of which shall constitute an original and all of which, when taken together, shall constitute one agreement. Each party hereto confirms that any facsimile copy of such party's executed counterpart of this letter agreement (or its signature page thereof) shall be deemed to be an executed original thereof.

THE VALIDITY, PERFORMANCE, AND ENFORCEMENT OF THIS LETTER AGREEMENT SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK, WITHOUT GIVING EFFECT TO THE PRINCIPLES OF CONFLICTS OF LAW OF SUCH STATE.

IN WITNESS WHEREOF, the undersigned has executed this letter agreement as of the day and year first above written.

COMCAST CORPORATION

By: /s/ Robert S. Pick
Name: Robert S. Pick
Title: Senior Vice President

TIME WARNER CABLE INC.

By: /s/ David E. O'Hayre
Name: David E. O'Hayre
Title: EVP, Investments

TWE HOLDINGS II TRUST

By: /s/ Edith E. Holiday
Name: Edith E. Holiday, solely in her capacity as Operating Trustee

EXHIBIT 10.11

TIME WARNER CABLE INC.
290 HARBOR DRIVE
STAMFORD, CT 06902

June 1, 2005

Comcast Corporation
1500 Market Street
Philadelphia, PA 19102
Attention: Larry Smith

TWE Holdings I Trust
TWE Holdings II Trust
c/o Edith E. Holiday
801 West Street
2nd Floor
Wilmington, DE 19801

Ladies and Gentlemen:

Reference is made to that certain Tolling and Optional Redemption Agreement, dated as of September 24, 2004, as amended from time to time (the "TOLLING AGREEMENT"), by and among Comcast Cable Communications Holdings, Inc. ("COMCAST CABLE"), a Delaware corporation, MOC Holdco II, Inc., a Delaware corporation, TWE Holdings II Trust, a Delaware statutory trust, Cable Holdco Inc., a Delaware corporation, TWE Holding I LLC, a Delaware limited liability company, Time Warner Cable Inc., a Delaware corporation ("TWC"), and the other parties named therein. Capitalized terms used herein and not otherwise defined shall have the respective meanings assigned to them in the Tolling Agreement.

Reference is made to that certain Redemption Agreement, dated as of April 20, 2005, as amended from time to time (the "TWC REDEMPTION AGREEMENT"), by and among Comcast Cable, TWC and the other parties named therein.

Reference is made to that certain Redemption Agreement, dated as of April 20, 2005, as amended from time to time (the "TWE REDEMPTION AGREEMENT"), by and among Comcast Cable, Time Warner Entertainment Company, L.P., a Delaware limited partnership, and the other parties named therein.

Reference is made to that certain Exchange Agreement, dated as of April 20, 2005, as amended from time to time (the "EXCHANGE AGREEMENT"), by and among

Comcast Corporation ("COMCAST"), a Pennsylvania corporation, TWC and the other parties named therein.

(A) The relevant parties hereto agree (on behalf of themselves and their respective Affiliates) that the Tolling Agreement is hereby amended as follows:

(i) The definition of the term "Permitted Lien" in Section 1.1 of the Tolling Agreement shall be amended by replacing the reference therein to "Schedule 1.1(c)" with a reference to "Schedule 1.1(e)".

(ii) The following definition shall be added in the appropriate alphabetical order in Section 1.1 of the Tolling Agreement:

""Specified Division" means the division of Timer Warner Cable specified on Schedule 1.1(f)."

(iii) Section 7.3(a) of the Tolling Agreement shall be deleted and replaced with the following:

"With respect to the Transferred Systems numbered (1), (5), (6) and (7) on Schedule A, by no later than 45 days after the earlier of (i) September 30, 2005 and (ii) termination of the TWC Redemption Agreement prior to the Closing (as defined in the TWC Redemption Agreement) occurring, Comcast Trust, Comcast Subsidiary and Time Warner Cable shall provide each other with all necessary documentation to allow filing of FCC Forms 394 with respect to such Transferred Systems Franchises. Comcast Trust, Comcast Subsidiary and Time Warner Cable shall use commercially reasonable efforts to cooperate with one another and file with the applicable Governmental Authority FCC Forms 394 for each of the Transferred System Franchises with respect to the Transferred Systems numbered (1), (5), (6) and (7) on Schedule A which requires the consent of such Governmental Authority in connection with the transactions contemplated by this Agreement, no later than 60 days after the earlier of (i) September 30, 2005 and (ii) termination of the TWC Redemption Agreement prior to the Closing (as defined in the TWC Redemption Agreement) occurring. In the event that on or prior to September 30, 2005 the condition set forth in Section 8.1(l) shall not have been satisfied, Time Warner Cable, Comcast Trust and Comcast Subsidiary shall discuss in good faith whether the filing of FCC Forms 394 with respect to the Transferred Systems numbered (1), (5), (6) and (7) on Schedule A, as of the time period contemplated by the preceding sentence, is advisable and whether such time period should be extended. With respect to the Transferred Systems numbered (2), (3) and (4) on Schedule A, Comcast Trust, Comcast Subsidiary and Time Warner Cable agree that the requirement to make FCC Form 394 filings to be made with respect to such Transferred Systems shall be satisfied by the filings made with respect to such Transferred Systems pursuant to Section 7.3(a) of the TWE Redemption Agreement and that such filings shall appropriately reflect the

possibility of such Transferred Systems being transferred pursuant to this Agreement."

(iv) The 30 day period referred to in the first sentence of Section 7.6 of the Tolling Agreement shall be extended to 37 days.

(v) The words "(or, with respect to the Designated Systems, the Amendment Date)" shall be added after the words "the date hereof" in Sections 3.1(a), 3.1(c), 3.1(l)(i), 3.1(l)(ii), 3.1(l)(iv), 7,1(d) and 7.22.

(vi) TWE Holding I LLC, a Delaware limited liability company shall added as a party to the Tolling Agreement, effective as of the Amendment Date (as defined in the Tolling Agreement).

(vii) The words "TWC or TWC" in Section 6.11(a)(xii) shall be replaced by the words "TWC or TWE".

(viii) The disclosure letter referenced in the second sentence of
Section 1.3 will be deemed to contain, as of the Amendment Date, the disclosure attached as Exhibit 2.

(B) The relevant parties hereto agree (on behalf of themselves and their respective Affiliates) that the TWC Redemption Agreement is hereby amended as follows:

(i) The 30 day period referred to in the first sentence of Section 7.6 of the TWC Redemption shall be extended to 37 days.

(ii) The words "Issuer Securities (as defined in the Registration Rights Agreement)" in Section 2.3(b)(ii) shall be replaced by "its Equity Securities (as defined in the TWC Adelphia Agreement)".

(C) The relevant parties hereto agree (on behalf of themselves and their respective Affiliates) that the TWE Redemption Agreement is hereby amended as follows:

(i) The 30 day period referred to in the first sentence of Section 7.6 of the TWE Redemption shall be extended to 37 days.

(D) The relevant parties hereto agree that the Exchange Agreement is hereby amended as follows:

(i) The 30 day period referred to in the first sentence of Section 6.5 of the Exchange Agreement shall be extended to 37 days.

(ii) Section 11.17 of the Exchange Agreement shall be restated in its entirety to read as follows:

"Section 11.17 Additional Parties. Immediately following the Adelphia Closing and prior to the Closing, Comcast shall cause each Transferred Joint Venture Entity that will be a Transferor (each a "Transferred Joint Venture Party") to become a party to this Agreement. Upon such joinder, but not before, each Transferred Joint Venture Party shall be considered a "Comcast Transferor" and a "Comcast Party", and each Transferred Joint Venture Entity shall be considered a "Comcast Participant", "Comcast Group Member" and Affiliate of the other Comcast Group Members, as relevant, in each case, for all purposes of this Agreement. The parties hereto agree that none of Comcast or any of its Affiliates shall have any Liability under this Agreement or any Transaction Document with respect to any Transferred Joint Venture Entity until such time as the Transferred Joint Venture Parties become parties to this Agreement and, in such event, only with respect to events, conditions or circumstances first arising thereafter. The parties agree to execute an appropriate amendment to this Agreement adding the Transferred Joint Venture Parties to this Agreement in accordance with the foregoing."

(iii) Notwithstanding any provision of the Exchange Agreement to the contrary, the cable communications system serving the Town of Wells, Vermont (Vermont PSB) (the "WELLS SYSTEM") and the cable communications system serving the Town of Milan, New Hampshire (the "MILAN SYSTEM") shall be treated in the Exchange Agreement in accordance with the principles set forth in Exhibit 1 hereto.

* * * * *

Any amendment of this letter agreement must be in writing. This letter agreement may be executed in several counterparts, each of which shall constitute an original and all of which, when taken together, shall constitute one agreement. Each party hereto confirms that any facsimile copy of such party's executed counterpart of this letter agreement (or its signature page thereof) shall be deemed to be an executed original thereof.

THE VALIDITY, PERFORMANCE, AND ENFORCEMENT OF THIS LETTER AGREEMENT SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK, WITHOUT GIVING EFFECT TO THE PRINCIPLES OF CONFLICTS OF LAW OF SUCH STATE.

IN WITNESS WHEREOF, each of the undersigned has executed this letter agreement as of the day and year first above written.

CABLE HOLDCO INC.

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

CABLE HOLDCO II INC.

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

CABLE HOLDCO III LLC

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

COMCAST CORPORATION

By: /s/ Robert S. Pick
Name: Robert S. Pick
Title: Senior Vive President

COMCAST CABLE COMMUNICATIONS HOLDINGS, INC.

By: /s/ Robert S. Pick
Name: Robert S. Pick
Title: Senior Vive President

COMCAST OF GEORGIA, INC.

By: /s/ Robert S. Pick
Name: Robert S. Pick
Title: Senior Vive President

MOC HOLDCO I, LLC

By: /s/ James P. McCue
Name: James P. McCue
Title: President

MOC HOLDCO II, INC.

By: /s/ James P. McCue
Name: James P. McCue
Title: President

TCI HOLDINGS, INC.

By: /s/ Robert S. Pick
Name: Robert S. Pick
Title: Senior Vive President

TIME WARNER INC.

By: /s/ Robert Marcus
Name: Robert Marcus
Title: SVP

TIME WARNER CABLE INC.

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

TIME WARNER NY CABLE LLC

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

TIME WARNER ENTERTAINMENT COMPANY, L.P.

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

TWE HOLDINGS I LLC

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

TWE HOLDINGS I TRUST

By: /s/ Edith E. Holiday
Name: Edith E. Holiday, solely in her capacity as Operating Trustee

TWE HOLDINGS II TRUST

By: /s/ Edith E. Holiday
Name: Edith E. Holiday, solely in her capacity as Operating Trustee

URBAN CABLE WORKS OF PHILADELPHIA, L.P.,

By Time Warner Entertainment Company, L.P., Manager

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

EXHIBIT 1

Capitalized terms used but not defined in this Exhibit 1 shall have the meanings set forth in the Exchange Agreement.

- Except as set forth below, the Wells System shall be deemed to be part of the Group 1 Business and the Milan System shall be deemed to be part of the Group 2 Business (in each case, as defined in the TWC/Adelphia Purchase Agreement) for all purposes of the Exchange Agreement.

- Notwithstanding the foregoing:

- For purposes of determining the Capital Expenditure Adjustment Amount and the Subscriber Adjustment Amount in respect of TWC/Adelphia Newco 3, the Wells System shall be disregarded and the Milan System shall be deemed to be part of the Group 1 Business held by TWC/Adelphia Newco 3 (provided that the foregoing shall not apply for purposes of clause (ii)(B)(y) of the definition of "Subscriber Adjustment Amount" in Section 1.1 of the Exchange Agreement).

- For purposes of determining the Net Liabilities Adjustment Amount in respect of TWC/Adelphia Newco 3:

- If the Closing occurs on the same date as the Adelphia Closing, the Wells System shall be disregarded and the Milan System shall be deemed to be part of the Group 1 Business held by TWC/Adelphia Newco 3; provided that if the difference between the Net Liability Amount (as defined below) for the Wells System and the Net Liability Amount for the Milan System is material relative to each other, the parties shall adjust the amount payable in respect of the Exchange of TWC/Adelphia Newco 3 in order to equitably account for such difference. "Net Liability Amount" means an amount equal to the Current Assets minus the Total Liabilities (in each case, as defined in the TWC/Adelphia Purchase Agreement and as determined pursuant to Section 2.6 of the TWC/Adelphia Purchase Agreement for purposes of determining the Final Adjustment Amount (as defined therein) thereunder) attributable to the Wells System or the Milan System, as applicable.

- If the Closing occurs on any date after the date of the Adelphia Closing, the Net Liabilities Adjustment Amount shall be determined in accordance with the terms of the Exchange Agreement (i.e., to reflect that the Wells System is held by TWC/Adelphia Newco 3 and the Milan System has been retained by the TWC Group).

- The parties will act in good faith in connection with all matters relating to the adjustment amounts applicable to the Wells System and the Milan System under the Exchange Agreement and the TWC/Adelphia Purchase Agreement.

- If an indemnification claim is made under the TWC/Adelphia Purchase Agreement with respect to the Wells System or the Milan System, the parties will appropriately allocate any limitations on recoveries resulting from any caps, deductibles and thresholds.

EXHIBIT 10.12

EXECUTION COPY

ALTERNATE TOLLING AND OPTIONAL REDEMPTION AGREEMENT

DATED AS OF MAY 31, 2005

BY AND AMONG

COMCAST CABLE COMMUNICATIONS HOLDINGS, INC.,

MOC HOLDCO II, INC.,

TWE HOLDINGS II TRUST,

CABLE HOLDCO INC.,

TIME WARNER CABLE INC.

AND

THE OTHER PARTIES NAMED HEREIN

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EXHIBITS

A Form of Second Stage Bringdown Certificate

B Form of Tax Matters Agreement

C Form of GP Redemption and Amendment Agreement

D Protective Election Legend

ALTERNATE TOLLING AND OPTIONAL REDEMPTION AGREEMENT

This ALTERNATE TOLLING AND OPTIONAL REDEMPTION AGREEMENT (this "Agreement"), dated as of May 31, 2005 and effective as of September 24, 2004, is by and among Comcast Cable Communications Holdings, Inc., a Delaware corporation ("Comcast"), MOC Holdco II, Inc., a Delaware corporation ("Comcast Subsidiary"), TWE Holdings I Trust, a Delaware statutory trust ("Comcast Trust I"), but solely for purposes of Section 2.1(b)(iv), TWE Holdings II Trust, a Delaware statutory trust ("Comcast Trust"), Comcast Corporation, a Pennsylvania corporation ("Comcast Parent"), but solely for purposes of Section 2.3 and the last sentence of Section 12.5, Cable Holdco Inc., a Delaware corporation ("Holdco"), TWE Holding I LLC, a Delaware limited liability company ("TWE Holdco I") and Time Warner Cable Inc., a Delaware corporation ("Time Warner Cable") and Time Warner Inc., a Delaware corporation, but solely for purposes of the last sentence of Section 12.5. Capitalized terms used herein and not otherwise defined shall have the respective meanings assigned to them in Article 1.

RECITALS

A. Comcast Trust, Time Warner Inc., a Delaware corporation ("Time Warner"), and Time Warner Cable are parties to that certain Registration Rights Agreement, dated as of March 31, 2003, as amended on the date hereof (the "Registration Rights Agreement").

B. The parties entered into the Tolling and Optional Redemption Agreement, dated as of September 24, 2004, as amended by Amendment No. 1, dated as of February 17, 2005, by Amendment No. 2, dated as of the Amendment Date, and the letter agreement dated May 10, 2005 (as so amended, and as further amended from time to time, the "Tolling Agreement"), by and among Comcast, Comcast Subsidiary, Comcast Trust, Holdco, TWE Holdco I, Time Warner Cable and, for certain limited purposes Comcast Trust I, Comcast Parent and Time Warner Inc., a Delaware corporation.

C. Time Warner Cable, Comcast Parent, Comcast Trust and Comcast Trust I have agreed pursuant to the Alternate Tolling Transaction Letter to enter into this Agreement.

D. The parties have agreed that from and after the date hereof until the Tolling Termination Date Comcast Trust will not exercise its demand registration rights under the Registration Rights Agreement.

E. Time Warner Cable indirectly through one or more of its Subsidiaries owns and operates the cable communications systems serving the communities identified on Schedule A (the "Transferred Systems").

F. Comcast Trust has agreed to toll its demand registration rights under the Registration Rights Agreement, and Time Warner Cable has agreed, at the option of Comcast Subsidiary, to (i) transfer to Holdco the Transferred Assets and (ii)

transfer all of the issued and outstanding securities of Holdco to Comcast Trust or Comcast Subsidiary in exchange for and in redemption of the Redemption Securities.

G. The parties intend that, for federal Income Tax purposes, (i) the Holdco Transaction and TWC Redemption shall be governed by Sections 355, 361(c) and 368(a)(1)(D) of the Internal Revenue Code of 1986 (the "Code"), (ii) that all of the shares of Holdco shall qualify as "qualified property" for purposes of Section 355(c)(2) and 361(c) of the Code and (iii) that no share of Holdco constitutes "other property" for purposes of Section 355(a)(3)(B) of the Code.

H. The parties have entered into this Agreement effective as of September 24, 2004. As used in this Agreement, the parties intend that the phrases "the date hereof" and "the date of this Agreement", and any substantially similar phrase, shall be deemed to refer to September 24, 2004.

AGREEMENTS

In consideration of the mutual covenants and promises set forth in this Agreement, the parties hereto agree as follows:

ARTICLE 1
DEFINITIONS

Section 1.1 Terms Defined in this Section. In addition to terms defined elsewhere in this Agreement, the following terms with initial capital letters, when used in this Agreement, shall have the meanings set forth below:

"Actually Realized" shall have the meaning set forth below. For purposes of this Agreement, (i) a Tax cost shall be treated as Actually Realized by any Person at the time at which the amount of Taxes payable by such Person is increased above the amount of Taxes that such Person would be required to pay (or the Refund to which such Person is entitled is reduced below the Refund to which such Person otherwise would have been entitled) but for such incremental Tax cost, and (ii) a Tax benefit shall be treated as Actually Realized by any Person at the time at which the amount of Taxes payable by such Person is reduced below the amount of Taxes that such Person would be required to pay (or the Refund to which such Person is entitled is increased above the Refund to which such Person otherwise would have been entitled) but for such incremental Tax benefit.

"Actuarial Amount" means an amount equal to the present value, as of the last day of the calendar month immediately prior to the Closing Date, of the aggregate actuarially determined cost of providing coverage (including administrative fees associated therewith) under the applicable long-term disability, retiree medical or retiree life plan as contemplated by Section 3.1(g)(v), less the portion of such amount (if any) that is provided by recipient contributions, calculated in good faith by Time Warner Cable's enrolled actuaries utilizing reasonable actuarial methods and assumptions consistent with GAAP, which calculation and assumptions shall be subject to the review and approval by Comcast Subsidiary's designated actuaries, such approval not to be unreasonably withheld or delayed.

"Affiliate" means, with respect to any Person, any other Person directly or indirectly controlling, controlled by or under common control with such Person as of the date on which, or at any time during the period for which, the determination of affiliation is being made; provided, that for purposes of this definition and the definition of "Controlled Affiliate", "control" (including with correlative meanings, the terms "controlled by" and "under common control with"), as used with respect to any Person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities or other equity securities, by Contract or otherwise provided, further, that solely for purposes of the definitions of "Affiliate" and "Controlled Affiliate", Comcast Trust (and its Controlled Affiliates) will be deemed to be controlled by Comcast and any Person who controls Comcast. For purposes of this Agreement, (i) Comcast and

Comcast Trust and Comcast Subsidiary, on the one hand, and Time Warner Cable, on the other hand, shall not be deemed to be Affiliates of one another, (ii) after the Closing Time Warner Cable, on the one hand, and Holdco, on the other hand, shall not be deemed to be Affiliates of one another and (iii) prior to the completion of the Closing Comcast and its Affiliates, on the one hand, and Holdco, on the other hand, shall not be deemed to be Affiliates of one another.

"Affiliated Group" means any affiliated, consolidated, combined or unitary group for Tax purposes under any federal, state, local or foreign law

(including regulations promulgated thereunder) including (without limitation)
any affiliated group within the meaning of Section 1504(a) of the Code.

"Alternate Transaction Letter" means the letter agreement dated the Amendment Date, as amended from time to time, among Time Warner Cable, Comcast Parent, Comcast Trust and Comcast Trust I, regarding this Agreement.

"Amendment Date" means April 20, 2005.

"Applicable Taxes" means Taxes that are Assumed Liabilities.

"Applicable Tax Return" shall mean any Tax Return relating to Applicable Taxes.

"Authorization" means any waiver, amendment, consent, approval, license, franchise, permit (including construction permits), certificate, exemption, variance or authorization of, expiration or termination of any waiting period requirement (including pursuant to the HSR Act) or other action by, or notice, filing, registration, qualification, declaration or designation with, any Person (including any Governmental Authority).

"Balance Sheet Date" means June 30, 2004 or, to the extent relating to a Designated System, December 31, 2004.

"Base Interest Rate" means the rate of interest charged in respect of borrowings by Time Warner Cable under its senior bank credit facilities.

"Business Day" means any day other than a Saturday or Sunday or a day on which banks in New York, New York are authorized or required to be closed.

"Cable Act" means Title VI of the Communications Act, 47 U.S.C.
Section 521, et seq.

"Cash Amount" means an amount of cash equal to (i) $422,000,000 plus
(ii) an amount equal to the Estimated Closing Adjustment Amount (which may be a positive or a negative number) minus (iii) the Actuarial Amount (but only if Comcast Subsidiary or its Affiliate shall have made the request referred to in
Section 3.1(g)(v)).

"Class A Common Stock" means the Class A Common Stock, par value $0.01 per share, of Time Warner Cable.

"Closing Date" means the date on which the Closing occurs.

"Closing Time" means, with respect to each Transferred System, 11:59 p.m., local time in the location of such Transferred System, on the Closing Date.

"Comcast Benefit Plan" means any plan, program, arrangement or agreement that is a pension, profit-sharing, savings, retirement, employment, consulting, severance pay, termination, executive compensation, incentive compensation, deferred compensation, bonus, stock purchase, stock option, phantom stock or other equity-based compensation, change-in-control, retention, salary continuation, vacation, sick leave, disability, death benefit, group insurance, hospitalization, medical, dental, life (including all individual life insurance policies as to which Comcast Subsidiary or any of its ERISA Affiliates is the owner, the beneficiary, or both), Code Section 125 "cafeteria" or "flexible" benefit, employee loan, educational assistance or fringe benefit plan, program, policy or arrangement whether written or oral, including, without limitation, any (i) "employee benefit plan" within the meaning of Section 3(3) of ERISA or (ii) other employee benefit plan, agreement, program, policy, arrangement or payroll practice, whether or not subject to ERISA (including any funding mechanism therefor now in effect or required in the future as a result of the transactions contemplated by this Agreement or otherwise) which Comcast Subsidiary or any of its ERISA Affiliates maintains or contributes to or in respect of which Comcast Subsidiary or any of its ERISA Affiliates has any obligation to maintain or contribute, or have any direct or indirect liability, whether contingent or otherwise, with respect to which any employee or former employee of Comcast Subsidiary or any of its ERISA Affiliates has any present or future right to benefits.

"Comcast Parties" means Comcast, Comcast Subsidiary and Comcast Trust.

"Communications Act" means the Communications Act of 1934.

"Confidentiality Agreements" means (i) the letter agreement dated November 9, 2004, as amended, between Time Warner and Comcast Parent and (ii) the letter agreement dated August 26, 2004 between Time Warner Cable and Comcast, in each case regarding confidential information of Time Warner and its Affiliates.

"Contract" means any written agreement, contract, mortgage, deed of trust, bond, indenture, lease, license, note, franchise, certificate, option, warrant, right or other instrument, document, obligation or agreement, and any oral obligation, right or agreement.

"Controlled Affiliate" means, with respect to any Person, any Affiliate of such Person that is controlled by such Person.

"Designated Systems" means the Transferred Systems serving the communities identified in Schedule 1.1(a).

"Digital Subscriber" means a paying customer who has been installed and receives any level of video service offered by a Transferred System and received via digital technology, including without limitation, the digital guide tier, the digital basic tier, digital sports tiers and digital movie tiers.

"DMA" means a geographic area established by Nielsen Media Research for the purpose of rating the viewership of commercial television stations.

"Environmental Law" means any Legal Requirement whether now or hereafter in effect concerning the environment, including Legal Requirements relating to emissions, discharges, releases or threatened releases of Hazardous Substances into the environment, air (including both ambient and within buildings and other structures), surface water, ground water or land or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, presence, disposal, transport or handling of Hazardous Substances.

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended.

"ERISA Affiliate" means, as to any Person, any trade or business, whether or not incorporated, which together with such Person would be deemed a single employer within the meaning of Section 4001 of ERISA.

"Excluded SMATV Acquisition" means in respect to the Transferred Systems any SMATV Acquisition consummated after the Amendment Date and prior to the Closing Time in respect of which the Total SMATV Consideration (A) exceeds $2,500,000 or (B) exceeds $3,700,000 when aggregated with the Total SMATV Consideration paid in all previous such SMATV Acquisitions consummated after the Amendment Date and prior to the Closing Time.

"Excluded Tax Liabilities" means all Income Taxes relating to or arising out of, or resulting from the ownership or operation of the Transferred Systems for taxable periods, or portions thereof, ending on or prior to the Closing, other than Income Taxes suffered by Comcast or any of its Affiliates as a partner in TWE.

"FCC" means the Federal Communications Commission.

"FCC Trust Requirements" means rules, regulations, orders, requirements, or procedures adopted by the FCC in Applications for Consent to the Transfer of Control of Licenses from Comcast Corporation and AT&T Corp., Transferors, to AT&T Comcast Corporation, Transferee, Memorandum Opinion & Order, 17 FCC Rcd 23,246 (2002), and the trust agreements adopted pursuant to Section III of Appendix B of that order, including any related clarifications, amendments, modifications, and waivers authorized or approved by the FCC.

"Franchise" shall have the meaning assigned to such term in Section 602(9) of the Communications Act.

"Franchising Authority" shall have the meaning assigned to such term in Section 602(10) of the Communications Act.

"GAAP" means generally accepted accounting principles in the United States in effect from time to time applied on a consistent basis.

"GAAP Adjustments" means with respect to the preparation of any relevant financial statement, the exclusion of the items described in the proviso to the second sentence of Section 6.11(a) (other than clauses (v), (vii), (xi) and (xii) of such proviso) in each case consistent with the practices used in preparation of the Transferred System Financial Statements.

"Governmental Authority" means (a) the United States of America, (b) any state, commonwealth, territory or possession of the United States of America and any political subdivision thereof (including counties, municipalities, provinces, parishes and the like), (c) any foreign (as to the United States of America) sovereign entity and any political subdivision thereof and (d) any court, quasi-governmental authority, tribunal, department, commission, board, bureau, agency, authority or instrumentality of any of the foregoing.

"GP Redemption" means the transactions contemplated by the GP Redemption and Amendment Agreement.

"GP Redemption and Amendment Agreement" means the GP Redemption and Amendment Agreement, in the form attached hereto as Exhibit C, as amended from time to time; provided that any such amendments which would adversely affect Comcast Trust or its Affiliates are approved by Comcast Trust.

"Hazardous Substances" means (a) any pollutant, contaminant, waste or chemical or any toxic, radioactive, ignitable, corrosive or otherwise hazardous substance, waste or material, (b) any "hazardous waste" as defined by the Resource Conservation and Recovery Act of 1976 (RCRA) (42 U.S.C. Sections 6901 et seq.); (c) any "hazardous substance" as defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) (42 U.S.C. Sections 9601, et. seq.); (d) any substance regulated by the Toxic Substances Control Act of 1976 (TSCA) (15 U.S.C. Section 2601 et seq.); (e) asbestos or asbestos-containing material of any kind or character; (f) polychlorinated biphenyls; (g) any substance the presence, use, treatment, storage or disposal of which is prohibited by or regulated under any Legal Requirement; and (h) any other substance which by any Legal Requirement requires special handling, reporting or notification of or to any Governmental Authority in its collection, storage, use, treatment, presence or disposal.

"High Speed Data Subscriber" means a customer who subscribes to at least the lowest level of Internet service offered by a Transferred System, excluding courtesy accounts.

"Holdco Transaction Liabilities" means any and all Liabilities of Holdco arising under Section 3.4 or Article 11 of this Agreement.

"HSR Act" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976.

"Income Taxes" means any Tax which is based upon, measured by, or computed by reference to net income or profits (including alternative minimum Tax) in the case of Time Warner Cable and its subsidiaries with respect to any payments in respect of Taxes that are governed by the Time Warner Tax Matters Agreement, Income Taxes shall mean any amounts payable by or to Time Warner Cable under the Time Warner Tax Matters Agreement.

"Individual Subscriber" means, as of any given date, the aggregate of all of the following Subscribers (or Retained Subscribers, as the case may be): (a) private residential customer accounts that are billed by individual unit (regardless of whether such accounts are in single family homes or in individually billed units in apartment houses and other multi-unit buildings) (excluding "second connects" or "additional outlets," as such terms are commonly understood in the cable industry), each of which shall be counted as one Individual Subscriber, (b) bulk bill residential accounts not billed by individual unit, such as apartment houses and multi-family homes, provided each unit in such apartment house or multi-family home shall be counted as one Individual Subscriber and (c) commercial bulk accounts such as hotels, motels and restaurants, provided each commercial account shall count as one Individual Subscriber; provided that, in all such cases, Individual Subscribers shall not include any free accounts.

"Judgment" means any judgment, judicial decision, writ, order, injunction, award or decree of or by any Governmental Authority or any arbitration panel or authority whose decision is binding and enforceable.

"Leased Property" means the premises demised under the Leases.

"Legal Requirement" means applicable common law and any statute, ordinance, code, law, rule, regulation, order, technical or other written standard, requirement or procedure enacted, adopted, promulgated, applied or followed by, or any agreement entered into by, any Governmental Authority, including any Judgment.

"Liabilities" means any and all liabilities, losses, charges, indebtedness, demands, actions, damages, obligations, payments, costs and expenses, bonds, indemnities and similar obligations, covenants, and other liabilities, including all Contractual obligations, whether due or to become due, absolute or contingent, inchoate or otherwise, matured or unmatured, liquidated or unliquidated, accrued or unaccrued, known or unknown, determined or determinable, whenever arising, and including those arising under any Legal Requirement, in each case, whether or not recorded or reflected or required to be recorded or reflected on the books and records or financial statements of any Person.

"Lien" means, with respect to any property or asset, any security agreement, financing statement filed with any Governmental Authority, conditional sale agreement, capital lease or other title retention agreement relating to such property or asset, any lease, consignment or bailment given for purposes of security, any right of first refusal, equitable interest, lien, mortgage, indenture, pledge, option, charge, encumbrance, adverse interest, constructive trust or other trust, claim, attachment, exception to or defect in title or other ownership interest (including reservations, rights of entry, possibilities of reverter, encroachments, survey defects, easements, rights-of-way, restrictive covenants, leases and licenses) of any kind, which otherwise constitutes an interest in or claim against property, whether arising pursuant to any Legal Requirement, any Contract or otherwise.

"Litigation" means any claim, action, suit, proceeding, arbitration, investigation, hearing or other activity or procedure that could result in a Judgment, and any notice of any of the foregoing.

"Local Retransmission Consent Agreement" means any retransmission consent agreement that covers a signal carried by a Transferred System that does not also cover a signal carried by a Time Warner Cable Retained Cable System.

"Losses" means any claims, losses, damages, penalties, costs and expenses, including interest which may be imposed in connection therewith, expenses of investigation, reasonable fees and disbursements of counsel and other experts and the reasonable cost to any Person making a claim or seeking indemnification under this Agreement with respect to funds expended by such Person by reason of the occurrence of any event with respect to which indemnification is sought, but shall in no event include incidental, punitive or consequential damages except to the extent required to be paid to a third party. For the avoidance of doubt, an item that is included in the definition of "Losses" shall be included regardless of whether it arises as a result of the negligence, strict liability or any other liability under any theory of law or equity of, or violation of any Law.

"Master Pre-Closing Liabilities" means all Liabilities of Time Warner Cable and its Affiliates arising out of, resulting from or associated with the use, ownership or operation of the Excluded Assets described in clauses (i), (ii), (vi), (vii), (viii), or (ix) (except, with respect to clause (ix), to the extent related to inventory included in the definition of "Excluded Assets" pursuant to clause (xiii) thereof) in each case to the extent such Liability primarily relates to goods or services provided to or used by the Transferred Business prior to Closing in the ordinary course of business consistent with past practice; provided that the amount of such Liabilities (in total and for each of the categories described above) is identified to Comcast Subsidiary in writing from Time Warner Cable on or prior to the date that is 60 days after Closing.

"Material Adverse Effect" means a material adverse effect on the business, assets, operations or condition (financial or otherwise) of the Transferred Systems taken as a whole, excluding any such effect to the extent resulting from or arising in connection with: (i) except to the extent relating to Section 6.3, the execution of

this Agreement and the announcement thereof; (ii) changes or conditions generally affecting the cable television industry; (iii) changes in the economy or financial markets in general; (iv) changes in general regulatory, political or national security (e.g., changes resulting from military conflicts or acts of foreign or domestic terrorism) conditions; (v) changes in the business, operations or conditions of Time Warner Cable that similarly affect the Time Warner Cable Retained Cable Systems, taken as a whole; or (vi) as described on Schedule 1.1(b).

"Option Commencement Date" means December 1, 2004.

"Option Expiration Date" means the earlier of (i) the date that is 40 days following the Amendment Date and (ii) the Option Decision Date; provided that if Time Warner Cable does not comply in all material respects with it obligations under Section 7.20, the Option Expiration Date shall be the later of such dates.

"Original Systems" means the Transferred Systems serving the communities identified in Schedule 1.1(d).

"Party" or "party" means either Comcast, Comcast Trust, Comcast Subsidiary, Holdco or Time Warner Cable.

"Permitted Lien" means (a) any Lien securing Taxes, assessments and governmental charges not yet due and payable or being contested in good faith (and for which adequate accruals or reserves have been established), (b) any zoning law or ordinance or any similar Legal Requirement, (c) any right reserved to any Governmental Authority, including any Franchising Authority, to regulate the affected property, (d) as to all Owned Property and Real Property Interests, any Lien (other than Liens securing indebtedness or arising out of the obligation to pay money) which does not individually or in the aggregate with one or more other Liens interfere in any material respect with the right or ability to own, use, enjoy or operate the Owned Property or Real Property Interests as they are currently being used or operated, or to convey good and indefeasible fee simple title to the same (with respect to Owned Property), (e) in the case of Leased Property, any right of any lessor or any Lien granted by any lessor of Leased Property or by any other party having an interest in such leased property which is superior to that which is demised under the applicable Lease (or to which the fee interest in Leased Property or any other interest superior to that which is demised under the applicable Lease is otherwise subject), (f) any materialmen's, mechanic's, workmen's, repairmen's or other like Liens arising in the ordinary course of business, (g) any Lien described on Schedule 1.1(e) and (h) non-material leases, subleases, licenses or sublicenses in favor of third parties; provided, that "Permitted Liens" shall not include any Lien (other than any Lien described in clause (e) above) (i) in the case of a non-monetary claim, which is reasonably likely to prevent or interfere in any material respect with the conduct of the business of the affected Transferred System as it is currently being conducted or (ii) in the case of a monetary claim or debt, including those described in clauses (a), (d) and (f) above, except to the extent the same is reflected in the Closing Net Liabilities Amount used in calculating the Final Adjustment Amount.

"Person" means any human being, Governmental Authority, corporation, limited liability company, general or limited partnership, joint venture, trust, association or unincorporated entity of any kind.

"Redemption Securities" means 42.602 shares of Class A Common Stock owned by Comcast Trust (as such number may be appropriately adjusted to reflect any stock dividends, subdivisions, splits, combinations or other similar events relating to the capital stock of Time Warner Cable).

"Refund" shall mean, with respect to any Person, any refund of Income Taxes including any reduction in Income Tax liabilities by means of a credit, offset or otherwise.

"Retained Subscriber" means a paying customer who subscribes to at least the lowest level of video programming offered by a Time Warner Cable Retained Cable System.

"Second Stage Bringdown Certificate" means the certificate to be delivered by Time Warner Cable in the form attached hereto as Exhibit A.

"Second Stage Documents" means (i) any Contract, list or other item (and all material information relating thereto that is available to Time Warner Cable) added to the Schedules for Sections 6.3(c), 6.3(f) or 6.5 pursuant to Section 7.20 and (ii) any other documents or other information to be provided by Time Warner Cable pursuant to Section 7.20(d).

"Service Area" means any geographic area in which the Transferred Systems are authorized to provide cable television service pursuant to a Transferred Systems Franchise or in which such Transferred Systems provide cable television service for which a Franchise or other Authorization is not required pursuant to applicable Legal Requirements.

"SMATV Acquisition" means any acquisition, within or within close geographical proximity to the Service Area of a Transferred System, of multi-channel video subscribers from a private cable communications system operator (including any owner of a Dwelling, a "SMATV Seller") in respect of any one or more apartment houses or multi-unit buildings, complexes or private communities, hotels or motels or similar facilities (each a "Dwelling") pursuant to which any payment is required to be made to the SMATV Seller to transfer or terminate its existing cable service agreement with the owner or manager of such Dwelling or, if the SMATV Seller is the owner of the Dwelling, to terminate the owner's provision of cable services to the Dwelling; provided that the payment, in the ordinary course of business, of door fees, commissions, revenue sharing and similar amounts to any owner or manager of any Dwelling in connection with the provision of multi-channel video service to such Dwelling shall not constitute a SMATV Acquisition.

"SMATV Purchase Price Per Subscriber" means, in respect of any SMATV Acquisition, the Total SMATV Consideration payable in respect of such

SMATV Acquisition divided by the number of Individual Subscribers acquired pursuant to such SMATV Acquisition.

"Specified Division" means the division of Time Warner Cable specified on Schedule 1.1(f).

"Specified Launch Support Liabilities" means any Liabilities of Time Warner Cable and its Affiliates under agreements with third parties in effect (and on the terms in effect) as of the date hereof (or, with respect to the Designated Systems, the Amendment Date), to repay launch support payments received by Time Warner Cable or its Affiliates prior to the date hereof (or, with respect to the Designated Systems, the Amendment Date), up to a maximum of
(i) $783,000 in the aggregate with respect to the Original Systems and (ii) $1,428,000 in the aggregate with respect to the Designated Systems, in each case arising out of, resulting from or associated with any failure by the Transferred Systems to continue to carry after Closing any channels for which launch support payments were received by Time Warner Cable or its Affiliates prior to the date hereof (or, with respect to the Designated Systems, the Amendment Date), but only to the extent such Liabilities result from either the deletion of the applicable channel, change in channel placement of the applicable channel, or the transfer of such channel to a different tier of service, in any such case after the Closing Date and prior to the fifth anniversary of the date hereof (or, with respect to the Designated Systems, the Amendment Date).

"SSBC Systems" means the Transferred Systems serving the communities identified in Schedule 1.1(i).

"Straddle Period" shall mean any taxable period that begins on or before, and ends after, the Closing Date.

"Subscriber" means a paying customer who subscribes to at least the lowest level of video programming offered by a Transferred System.

"Subsidiary" means, with respect to any Person, any entity of which securities or other ownership interests having ordinary voting power to elect a majority of the board of directors or other body performing similar functions are at any time directly or indirectly owned by such Person.

"Subsidiary Transfers" means the transfers by the Transferring Persons of the Transferred Systems to Time Warner Cable.

"Taxes" means all levies and assessments of any kind or nature imposed by any Governmental Authority, including all income, sales, use, ad valorem, value added, franchise, severance, net or gross proceeds, withholding, payroll, employment, F.I.C.A., excise or property taxes, levies, and any payment required to be made to any state abandoned property administrator or other public official pursuant to an abandoned property, escheat or similar law, together with any interest thereon and any penalties, additions to tax or additional amounts applicable thereto and, in the case of Time Warner

Cable, any amounts payable by or to Time Warner Cable under the Time Warner Tax Matters Agreement.

"Tax Matters Agreement" means the Holdco Tax Matters Agreement, by and between Time Warner, Time Warner Cable, Comcast Parent, Comcast and Holdco substantially in the form attached hereto as Exhibit B, as such agreement may be modified pursuant to Section 7.11 of this Agreement or as such Agreement may be amended after the Closing, and any successor agreement.

"Tax Law" means the Code, final, temporary or proposed Treasury regulations, published pronouncements of the U.S. Treasury Department or Internal Revenue Service, published court decisions or other relevant binding legal authority.

"Tax Return" shall mean any report, return or other information (including any attached schedules or any amendments to such report, return or other information) required to be supplied to or filed with a Governmental Authority with respect to any Tax, including (without limitation) an information return, claim for refund, amended return, declaration, or estimated Tax return, in connection with the determination, assessment, collection or administration of any Tax.

"Telephony Subscriber" means a customer who subscribes to at least the lowest level of telephone service offered by a Transferred System, excluding courtesy accounts.

"Time Warner Cable Benefit Plan" means any plan, program, arrangement or agreement that is a pension, profit-sharing, savings, retirement, employment, consulting, severance pay, termination, executive compensation, incentive compensation, deferred compensation, bonus, stock purchase, stock option, phantom stock or other equity-based compensation, change-in-control, retention, salary continuation, vacation, sick leave, disability, death benefit, group insurance, hospitalization, medical, dental, life (including all individual life insurance policies as to which Time Warner Cable or any of its Affiliates is the owner, the beneficiary, or both), Code Section 125 "cafeteria" or "flexible" benefit, employee loan, educational assistance or fringe benefit plan, program, policy or arrangement whether written or oral, including, without limitation, any (i) "employee benefit plan" within the meaning of Section 3(3) of ERISA or (ii) other employee benefit plan, agreement, program, policy, arrangement or payroll practice, whether or not subject to ERISA (including any funding mechanism therefor now in effect or required in the future as a result of the transactions contemplated by this Agreement or otherwise) which Time Warner Cable or any of its Affiliates maintains or contributes to or in respect of which Time Warner Cable or any of its Affiliates has any obligation to maintain or contribute, or have any direct or indirect liability, whether contingent or otherwise, with respect to which any Transferred System Employee has any present or future right to benefits.

"Time Warner Cable Required Consents" means (a) any and all consents, authorizations and approvals (other than any approval of any Franchising Authority consent) the failure of which to obtain in connection with the GP Redemption, Subsidiary

Transfers, Holdco Transaction, TWC Redemption and/or Comcast Subsidiary Transfer would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect and (b) any other consents, authorizations and approvals set forth on Schedule 6.3 and designated thereon as Time Warner Cable Required Consents.

"Time Warner Cable Retained Cable Systems" means all cable communications systems operated directly or indirectly by Time Warner Cable and its Affiliates (in each case to the extent the results of such systems are included in the consolidated results of Time Warner Cable) at the Closing other than the Transferred Systems and any systems acquired after the date hereof.

"Time Warner Tax Matters Agreement" means the Tax Matters Agreement, by and between Time Warner and Time Warner Cable, dated as of March 31, 2003, as such agreement may be amended from time to time and any successor agreement; provided, however, that for purposes of this Agreement, no such amendment or successor agreement shall be taken into account unless it was made or entered into with the consent of Comcast Subsidiary, not to be unreasonably withheld or delayed.

"Tolling Termination Date" means the Amendment Date.

"Total SMATV Consideration" means, in respect of any SMATV Acquisition, the total consideration payable to the SMATV Seller and its Affiliates in respect of such SMATV Acquisition plus the amount of any net liabilities assumed by the acquiror.

"Transaction Documents" means (i) the instruments and documents described in Sections 9.2 and 9.3 which are being executed and delivered by or on behalf of Comcast Trust, Comcast Subsidiary, Comcast Trust I, Holdco or Time Warner Cable, as the case may be, or any Affiliate of any of them in connection with this Agreement or the transactions contemplated hereby, (ii) the instruments and documents required to effect the Comcast Subsidiary Transfer, if applicable and (iii) the Second Stage Bringdown Certificate.

"Transactions" means the GP Redemption, the Subsidiary Transfers, the Holdco Transaction and the TWC Redemption.

"Transferable Service Area" means a Service Area with respect to which: (a) no Franchise or similar Authorization is required or issued for the provision of cable television service in such Service Area, (b) no consent of a Franchising Authority is necessary for the transfer of any Transferred Systems Franchise for such Service Area in connection with the consummation of the transactions contemplated by this Agreement, (c) if a consent of a Franchising Authority is necessary for the transfer of any Transferred Systems Franchise for such Service Area in connection with the consummation of the transactions contemplated by this Agreement, an effective consent or approval (on terms reasonably satisfactory to Comcast Subsidiary) has been obtained (and is in effect) or (d) if a consent of a Franchising Authority is necessary for the transfer of any Transferred Systems Franchise for such Service Area in connection with the consummation of the

ansactions contemplated by this Agreement, the applicable Franchising Authority does not expressly deny a request for approval to transfer ich Systems Franchise within the 120--day review period provided under FCC regulation (plus such extensions of time as are mutually agreed upon by Comcast Subsidiary and Time Warner Cable). Any Service Area in which a Person has a Transferred Systems Option that has not been waived in respect of the transactions contemplated by this Agreement and the Transaction Documents shall not be considered a ransferable Service Area.

"Transferred Business" means the businesses conducted with the Transferred Assets, including the operation of the Transferred Systems.

Transferred System Employee" means any individual who, as of the consummation of the Holdco Transaction, either (a) (x) is then a current or former employee of (including any full-time, part-time, temporary employee or an individual in any other employment relationship with), or then on a leave of absence (including, without limitation, paid or unpaid leave, disability, medical, personal, or any other form of authorized eave) from, Time Warner Cable or any of its Subsidiaries and (y) who is, or at the time of termination of employment was, primarily employed n connection with the Transferred Systems by Time Warner Cable or any of its Subsidiaries, or (b) has been designated by mutual written agreement of Comcast and Time Warner Cable as a Transferred System Employee prior to the Closing Date. Unless the context clearly indicates otherwise, "Transferred System Employee" shall include any person claiming benefits or rights under or through any Transferred System Employee, including the dependents or beneficiaries of any Transferred System Employee.

"TWC Participant" means each Transferring Person and Holdco.

"TWC Redemption Agreement" means the Redemption Agreement dated as of April 20, 2005, as amended from time to time, by and among Comcast, Comcast Subsidiary, Comcast Trust, Cable Holdco II Inc., a Delaware corporation, Time Warner Cable and the other parties named therein.

"TWE" means Time Warner Entertainment Company, L.P., a Delaware limited partnership.

"TWE Redemption Agreement" means the Redemption Agreement, dated April 20, 2005, as amended from time to time, by and among TWE, Comcast, MOC Holdco I, LLC, a Delaware limited liability company, Comcast Trust I, Cable Holdco III LLC, and the other parties named therein.

"Variable Expense Item" means the items identified as variable expense items on the 2004 Operating Budget and the 2005 Operating Budget (consistent in type with the items so identified in the 2005 Operating Budget), as applicable.

"$" means the U.S. dollar.

Section 1.2 Other Definitions. The following terms are defined in the Section or Exhibit indicated:

TERM	SECTION OR EXHIBIT
338(h)(10) Election	7.24(a)
2004 Budgets	7.1(i)
2004 Capital Budget	7.1(i)
2004 Operating Budget	7.1(i)
2005 Budgets	7.1(i)
2005 Capital Budget	7.1(i)
2005 Operating Budget	7.1(i)
Accounting Referee	2.5(c)
Affirmative Third Party Firm Determination	7.24(b)
Agreement	Preamble
Adjustment Payment	2.5(f)(i)
Assumed Liabilities	2.2
Books and Records	2.1(c)(vii)
Cap	11.4(a)
CARS	2.1(c)(iv)
Closing	9.1(a)
Closing Adjustment Amount	2.5(d)
Closing Net Liabilities Amount	2.5(g)
Closing Net Liabilities Adjustment Amount	2.5(g)
COBRA	3.1(i)
Code	Recitals
Comcast	Preamble
Comcast 401(k) Plan	3.1(e)
Comcast Balance Sheet	5.6
Comcast Health or Welfare Plan	3.1(g)(iii)
Comcast Parent	Preamble
Comcast Reimbursement Plan	3.1(h)
Comcast Statement	2.5(a)
Comcast Subsidiary	Preamble
Comcast Subsidiary Transfer	2.1(b)(iii)
Comcast Transferred System Employees	3.1(a)

Comcast Trust	Preamble
Comcast Trust I	Preamble
Comcast Trust Releasing Parties	11.8
Confidential Information	7.4(a)
Delayed Transfer Asset	2.1(e)(i)
Delivery Date	2.5(a)
Designated Offices	7.20(a)
Designated Relative Percentage Amount	2.5(h)
Designated Retained Base Subscriber Number	2.5(h)
Designated Retained Percentage	2.5(h)
Designated Transferred Base Subscriber Number	2.5(h)
Designated Transferred Closing Subscriber Number	2.5(h)
Designated Transferred Percentage	2.5(h)
Determination	7.24(b)
Determination Deadline	7.24(b)
Diligence Request Date	7.4(c)
Disclosure Letter	1.3
ERISA Group Liabilities	6.15(b)
Estimated Closing Adjustment Amount	2.4
Estimated Closing Net Liabilities Adjustment Amount	2.4
Estimated Subscriber Adjustment Amount	2.4
Exchange Act	4.3
Excluded Assets	2.1(d)
Excluded Liabilities	2.2
Excluded Transferred Cash	2.1(d)
Final Closing Adjustment Amount	2.5(d)
Franchise Matter	11.3
Good Faith Notice	7.20(b)
Guaranteed Parties	11.11(a)

Guaranteed Obligations	11.11(a)
Holdco	Preamble
Holdco Adjustment Payment	2.5(f)(i)
Holdco Indemnification Payment	11.10(a)
Holdco Indemnified Liabilities	6.15(b)
Holdco Shares	2.1(b)(ii)
Holdco Transaction	2.1(b)(i)
Indemnification Payment	11.10(a)
Indemnitee	11.3
Indemnitor	11.3
Joint Determination	7.24(b)
Knowledge	1.3
Leases	6.10
Option	2.1(a)
Option Decision Date	7.20(a)
Option Exercise Date	2.1(a)(i)
Option Exercise Notice	2.1(a)(i)
Original Relative Percentage Amount	2.5(h)
Original Retained Base Subscriber Number	2.5(h)
Original Retained Percentage	2.5(h)
Original Transferred Base Subscriber Number	2.5(h)
Original Transferred Closing Subscriber Number	2.5(h)
Original Transferred Percentage	2.5(h)
Outside Closing Date	10.1(a)
Owned Property	2.1(c)(ii)
POFS	7.1(h)(ii)
Post Closing Consent	7.8
Previous Request	2.3(a)
QSP	7.24(b)
Rate Regulatory Matter	7.10(d)
Real Property Interests	2.1(c)(ii)

Transferred Systems Contracts	2.1(c)(v)
Transferred Systems Financial Statements	6.11(a)
Transferred Systems Franchises	2.1(c)(iii)
Transferred Systems Licenses	2.1(c)(iv)
Transferred Systems Option	6.19
Transferring Person	6.1
Transitional Services	7.9
TWC Redemption	2.1(b)(ii)
TWE Holdco I	Preamble
WARN	3.1(j)

Section 1.3 Rules of Construction. References to one or more schedules or Schedules shall be references to schedules included in that separate disclosure letter (the "Disclosure Letter") delivered by Time Warner Cable to Comcast Trust and Comcast Subsidiary on May 31, 2005 (and deemed to have been delivered on the Amendment Date) in connection with this Agreement, as such Schedules may be updated pursuant to Sections 7.11 and 7.20 (but, in such case, subject to the provisions of such Sections). It is understood that the representations and warranties set forth in Articles 4 and 5 are qualified by the disclosure letter delivered by Comcast Subsidiary to Time Warner Cable on the Amendment Date in connection with the Tolling Agreement, which disclosure letter will be deemed to have also been delivered in connection with this Agreement, mutatis mutandis. Unless otherwise expressly provided in this Agreement: (a) accounting terms used in this Agreement shall have the meaning ascribed to them under GAAP; (b) words used in this Agreement, regardless of the gender used, shall be deemed and construed to include any other gender, masculine, feminine, or neuter, as the context requires; (c) the word "include" or "including" is not limiting, and the word "or" is not exclusive; (d) the capitalized term "Section" refers to sections of this Agreement; (e) references to a particular Section include all subsections thereof, (f) references to a particular statute or regulation include all amendments thereto, rules and regulations thereunder and any successor statute, rule or regulation, or published clarifications or interpretations with respect thereto, in each case as from time to time in effect; (g) references to a Person include such Person's successors and assigns to the extent not prohibited by this Agreement; (h) references to a "day" or number of "days" (without the explicit qualification "Business") shall be interpreted as a reference to a calendar day or number of calendar days; and (i) the phrases "the date hereof" and "the date of this Agreement", and any substantially similar phrase, shall be deemed to refer to September 24, 2004. "Knowledge" (whether or not capitalized) and words of similar import, when used with reference to Time Warner Cable, means the actual knowledge of a particular matter of any of the individuals listed on Schedule 1.3(A), and, from and after delivery of the Second Stage Bringdown Certificate but solely with respect to Sections 6.3(c), 6.3(f) and 6.5 and solely to the extent such Sections relate to the SSBC Systems, the additional

individuals identified on Schedule 1.3(B). This Agreement shall be interpreted on the basis that it was effective on September 24, 2004.

ARTICLE 2
OPTION EXERCISE; REDEMPTIONS; TOLLING

Section 2.1 Option; Redemptions.

(a) Option.

(i) Notwithstanding anything to the contrary set forth herein, in no event shall any party hereto have any obligation to consummate the transactions contemplated to occur at the Closing, including the GP Redemption, the Holdco Transaction and the TWC Redemption, unless and until Comcast Subsidiary shall deliver a written notice (the "Option Exercise Notice") to Time Warner Cable during the period commencing on the Option Commencement Date and expiring at 5:00 p.m. (NYT) on the Option Expiration Date specifying that it is irrevocably exercising its option (the "Option") to cause such transactions to be consummated in accordance with the terms and conditions herein set forth. The delivery of the Option Exercise Notice (as defined under the Tolling Agreement) shall be deemed to be a delivery of the Option Exercise Notice under this Agreement. The date on which the Option Exercise Notice, if any, is received by Time Warner Cable is herein referred to as the "Option Exercise Date." For the avoidance of doubt, TWC acknowledges that the Option Exercise Notice (as defined in the Tolling Agreement) was delivered to TWC on May 20, 2005.

(ii) The Option shall be non-transferable and is solely for the benefit of Comcast Subsidiary.

(iii) The Option, if not yet exercised, shall automatically terminate and be null and void and of no further force or effect at 5:00 p.m. (NYT) on the Option Expiration Date (so long as prior thereto Comcast Subsidiary did not deliver the Option Exercise Notice in accordance with Sections 2.1(a)(i) and 12.4).

(iv) From and after the Option Exercise Date, if any, consummation of the transactions contemplated by this Agreement shall be subject to the satisfaction of the conditions set forth in Sections 8.1, 8.2 and 9.1.

(v) The valid exercise of the Option (as defined in the Tolling Agreement) will be deemed a valid exercise of the Option hereunder.

(b) GP Redemption; Holdco Transaction; TWC Redemption. Subject to the terms and conditions set forth in this Agreement, including exercise of the Option:

(i) Subject to Section 2.1(e), prior to the consummation of the Holdco Transaction, (a) pursuant to the terms and conditions of the GP Redemption and Amendment Agreement, the GP Redemption shall be effected and (b) the Subsidiary Transfers shall be effected. Subject to Section 2.1(e), following the

consummation of the GP Redemption and the Subsidiary Transfers and prior to the consummation of the TWC Redemption, (a) Time Warner Cable shall (or shall cause its Affiliates to) assign, transfer, convey and deliver to Holdco and Holdco shall accept from Time Warner Cable (and its Affiliates), all of its (and their) right, title and interest in and to the Transferred Assets and (b) Holdco shall assume and agree to pay and discharge, as and when they become due, the Assumed Liabilities. The transactions contemplated by clauses (a) and (b) of the immediately preceding sentence are referred to together as the "Holdco Transaction" and shall be consummated pursuant to one or more Bills of Sale and Assignment and Instrument of Assumption in form and substance reasonably acceptable to Time Warner Cable and Comcast Subsidiary, and such other instruments of transfer or assignment as may be reasonably necessary to effect the Holdco Transaction, in each case in form and substance satisfactory to Comcast Subsidiary. For the avoidance of doubt, both the GP Redemption and the Holdco Transaction shall take place prior to the Closing.

(ii) At the Closing, (a) Time Warner Cable shall transfer to Comcast Trust (or, if such transfer would be permitted under applicable FCC Trust Requirements, to Comcast Subsidiary) all outstanding securities of Holdco (the "Holdco Shares") in exchange for and in complete redemption of the Redemption Securities and (b) Comcast Trust shall deliver to Time Warner Cable a stock certificate evidencing the Redemption Securities which shall be in definitive form and registered in the name of Comcast Trust, in proper form for transfer and, if requested by Time Warner Cable, execute, acknowledge and deliver a stock power or such other customary instruments of transfer as Time Warner Cable may reasonably request. The transactions contemplated by the preceding sentence are referred to as the "TWC Redemption."

(iii) If the Holdco Shares are delivered to Comcast Trust (rather than Comcast Subsidiary) pursuant to Section 2.1(b)(ii), then immediately after such transaction, Comcast Trust will transfer the Holdco Shares to Comcast Subsidiary (the "Comcast Subsidiary Transfer"). For purposes of Section 2.1(e)(i) and all Authorizations required or obtained in connection with the transactions contemplated by this Agreement at the Closing, the Comcast Subsidiary Transfer will be considered as part of such transactions so that such Authorizations will allow such transfer.

(iv) Each of the parties hereto hereby agrees that its execution of this Agreement shall constitute its consent and approval of the GP Redemption, the Holdco Transaction, the TWC Redemption and the Comcast Subsidiary Transfer, if any, for all purposes. Without limiting the foregoing, Comcast Trust I hereby agrees to execute and deliver the GP Redemption and Amendment Agreement at such time prior to the Closing as Time Warner Cable shall request.

(c) Transferred Assets. "Transferred Assets" means the Cash Amount, an amount of cash equal to the cash excluded from Excluded Assets pursuant to clause (iv) of the definition thereof (other than the Cash Amount) and all of Time Warner Cable's and its Affiliates' right, title and interest in the assets and properties, real and personal, tangible and intangible, owned, held for use, leased, licensed or used by Time Warner Cable or its Affiliates primarily in the operation of the Transferred Systems as of the Closing Time (that are not Excluded Assets), which Cash Amount and right, title and interest shall be owned by Holdco as of

the Closing (other than as contemplated by Section 2.1(e)(i)). The Transferred Assets shall include the following types of assets and properties:

(i) Tangible Personal Property. All tangible personal property, including towers, tower equipment, aboveground and underground cable, distribution systems, headend equipment, line amplifiers, microwave equipment, converters, testing equipment, motor vehicles, office equipment, furniture, fixtures, supplies, inventory and other physical assets (the "Tangible Personal Property"), including the Tangible Personal Property described on Schedule 2.1(c)(i);

(ii) Real Property. All fee interests in real property (including improvements thereon) (the "Owned Property"), including the interests described as Owned Property on Schedule 2.1(c)(ii)), and all leases, easements, rights of access and other interests (not including fee interests) in real property (the "Real Property Interests"), including the Real Property Interests described on Schedule 2.1(c)(ii);

(iii) Franchises. All franchises and similar authorizations or similar permits issued by any Governmental Authority, (the "Transferred Systems Franchises"), including the Transferred Systems Franchises described on Schedule 2.1(c)(iii);

(iv) Licenses. All cable television relay service ("CARS"), business radio and other licenses, authorizations, consents or permits issued by the FCC or any other Governmental Authority (other than the Transferred Systems Franchises) (the "Transferred Systems Licenses"), including the Transferred Systems Licenses described on Schedule 2.1(c)(iv);

(v) Contracts. All pole line or joint line agreements, underground conduit agreements, crossing agreements, bulk service, commercial service or multiple dwelling agreements, access agreements, system specific programming agreements or signal supply agreements, agreements with community groups, commercial leased access agreements, capacity license agreements, partnership, joint venture or other similar agreements or arrangements, advertising representation and interconnect agreements, and other Contracts (including all Contracts in respect of Real Property Interests) (the "Transferred Systems Contracts"), including the Transferred Systems Contracts described on Schedule 2.1(c)(v);

(vi) Accounts Receivable and Current Assets. All subscriber, trade and other accounts receivable (including advertising accounts receivable) and pre paid expense items;

(vii) Books and Records. All engineering records, files, data, drawings, blueprints, schematics, reports, lists, plans and processes and all files of correspondence, lists, records and reports concerning subscribers and prospective subscribers of the Transferred Systems, signal and program carriage and dealings with

Governmental Authorities, including all reports filed by or on behalf of Time Warner Cable (or its Affiliates) with the FCC and statements of account filed by or on behalf of Time Warner Cable (or its Affiliates) with the U.S. Copyright Office (the "Books and Records"); and

(viii) Insurance and Condemnation Proceeds. All rights to insurance and condemnation proceeds received or receivable after Closing in respect of any Assumed Liabilities, all insurance and condemnation proceeds (to the extent not already expended by Time Warner Cable to restore or replace the lost, damaged or condemned asset, which replacement asset shall be a Transferred Asset) received or receivable in respect of any asset damaged, lost or condemned after the Balance Sheet Date and which if not so damaged, lost or condemned would have been a Transferred Asset and all insurance and condemnation proceeds received or receivable in respect of business interruption of the Transferred Systems to the extent relating to any period after Closing, in each case on an effective after-tax basis as if TWE is, instead of being a partnership, a stand-alone corporation;

in the case of each of the foregoing, if such property is owned, held for use, leased, licensed or used primarily in the operation of the Transferred Systems and then only to the extent of Time Warner Cable's and its Affiliates' right, title and interest therein.

For the avoidance of doubt, and subject to Section 2.1(e), the parties intend that to the fullest extent permitted all record and beneficial ownership interests of Time Warner Cable and its Affiliates in the Transferred Assets will be transferred to Holdco in the Holdco Transaction and if any Transferring Person holds beneficial ownership in assets of the type described above while another Transferring Person holds record ownership in such assets, all of such ownership interests would be transferred to Holdco in the Holdco Transaction.

(d) Excluded Assets. Notwithstanding anything to the contrary set forth herein, all right, title and interest of Time Warner Cable and its Affiliates in, to and under the following (collectively, the "Excluded Assets"), in each case regardless of whether related to the Transferred Systems, shall not be transferred to Holdco pursuant to the Holdco Transaction and shall be retained directly or indirectly by Time Warner Cable from and after the Closing:
(i) any and all cable programming services agreements (including cable guide contracts but excluding system specific programming agreements listed on Schedule 2.1(c)(v)) and any payments received or to be received with respect thereto; (ii) any and all insurance policies and rights and claims thereunder other than the matters described in Section 2.1(c)(viii); (iii) letters of credit and any stocks, bonds (other than surety bonds), certificates of deposit and similar investments; (iv) any and all cash and cash equivalents (including cash received as advance payments by subscribers in the ordinary course of business and held by Time Warner Cable or its Affiliates as of the Closing Time, but excluding cash in an amount equal to the amount of cash received as (A) subscriber deposits, (B) the cash insurance and condemnation proceeds described in Section 2.1(c)(viii), (C) petty cash on-hand, if any, (D) any cash referred to in Section 12.16, (E) cash received as advance payments from subscribers that are not received in the ordinary course of business, (F) cash

proceeds (on an effective after-tax basis as if TWE is instead of being a partnership, stand alone corporation) of any exercise of a Transferred System Option and (G) the Cash Amount (clauses (B) (except to the extent relating to an Assumed Liability), (D), (E), (F) and (G), the "Excluded Transferred Cash"));
(v) any and all patents, copyrights, trademarks, trade names, service marks, service names, logos and similar proprietary rights, including the "Time Warner Cable" or "Road Runner" name and any derivations thereof (subject to Section 3.2 and excluding those items (other than those incorporating the "Time Warner" or "Road Runner" name) owned, licensed, used or held for use exclusively in connection with the operation of the Transferred Systems); (vi) any and all Contracts for subscriber billing services and any equipment leased with respect to the provision of services under such Contracts (subject to Section 7.9);
(vii) any and all Contracts relating to national advertising sales representation; (viii) any and all agreements with Road Runner Holdco LLC or any other Internet service provider; (ix) any and all Contracts pursuant to which Time Warner Cable or any of its Affiliates procures goods or services for both the Transferred Systems and the Time Warner Cable Retained Cable Systems; (x) any and all retransmission consent agreements, except as provided in Section 7.5 with respect to certain Local Retransmission Consent Agreements as elected by Comcast Subsidiary; (xi) any and all agreements governing or evidencing an obligation of Time Warner Cable or any of its Affiliates for borrowed money;
(xii) the assets described on Schedule 2.1(d); (xiii) any surplus inventory in excess of amounts of inventory held consistent with Specified Division practice (or, in the case of the Monroe cable systems, Time Warner Cable Retained Cable System practice); (xiv) any and all Authorizations of Governmental Authorities to provide telephony service held, directly or indirectly, by Time Warner Cable or any of its Affiliates; (xv) any and all assets relating to the Time Warner Cable 401(k) Plan and the Time Warner Cable Pension Plans; (xvi) any and all account books of original entry, general ledgers, and financial records used in connection with the Transferred Systems; (xvii) any assets of the type that would be excluded from financial statements by reason of the GAAP Adjustments; and (xviii) any intercompany account receivable created to record cash swept from the Transferred Systems prior to Closing (except to the extent such cash would be excluded from the definition of "Excluded Assets" pursuant to clause
(iv) above and such cash amount is not otherwise transferred to Holdco in the Holdco Transaction); provided, that Time Warner Cable shall, at Comcast Subsidiary's request and expense, provide copies of, or information contained in, such books, records and ledgers referred to in clause (xvi) above (other than information pertaining to programming agreements that are not Transferred System-specific programming or, to the extent necessary to protect the legitimate legal, business and/or confidentiality concerns of Time Warner Cable but taking into account Holdco's and Comcast Subsidiary's need for such information, other information that is competitively sensitive, is subject to confidentiality restrictions or that contains trade secrets or other sensitive information) to the extent reasonably requested by Holdco or Comcast Subsidiary after the Closing Date.

(e) Authorizations and Consents.

(i) If and to the extent that the transfer or assignment from TWE to TWE Holdco I, from any Transferring Person to Time Warner Cable or

from Time Warner Cable or any of its Affiliates to Holdco (or any successor thereof) of any Transferred Asset (or following such transfer or assignment, the transfer of Holdco Shares to Comcast Trust or Comcast Subsidiary, or from Comcast Trust to Comcast Subsidiary, as the case may be) would be a violation of applicable Legal Requirements with respect to such Transferred Asset, require any Authorization with respect to such Transferred Asset or otherwise adversely affect the rights of the applicable transferee thereunder then the transfer or assignment to Time Warner Cable or Holdco, as applicable, of such Transferred Asset (each a "Delayed Transfer Asset") shall be automatically deemed deferred and any such purported transfer or assignment shall be null and void until such time as all legal impediments are removed and/or such Authorizations have been made or obtained. Notwithstanding the foregoing, any such Delayed Transfer Asset shall be deemed a Transferred Asset for purposes of determining whether any Liability is an Assumed Liability.

(ii) If the transfer or assignment of any Transferred Asset intended to be transferred or assigned hereunder is not consummated prior to or at the Closing, whether as a result of the provisions of Section 2.1(e) or for any other reason, then Time Warner Cable (or its Affiliate) shall thereafter, directly or indirectly, hold such Transferred Asset for the use and benefit, insofar as reasonably possible and not prohibited under the terms of any applicable Contract, of Holdco (at the expense of Holdco). In addition, Time Warner Cable shall take or cause to be taken such other actions as may be reasonably requested by Holdco in order to place Holdco, insofar as reasonably possible, in the same position as if such Transferred Asset had been transferred as contemplated hereby and so that all the benefits and burdens relating to such Transferred Assets including possession, use, risk of loss, potential for gain, and dominion, control and command over such Transferred Asset, are to inure from and after the Closing to Holdco. To the extent permitted by Legal Requirements and to the extent otherwise permissible in light of any required Authorization, Holdco shall be entitled to, and shall be responsible for, the management of any Transferred Assets not yet transferred to it as a result of this Section 2.1(e) and the parties agree to use reasonable commercial efforts to cooperate and coordinate with respect thereto. For the avoidance of doubt, Time Warner Cable will cause TWE and each other Transferring Person to comply with the provisions hereof as if TWE or such other Transferring Person were a party hereto to the extent any Transferred Asset was intended to be, but was not, transferred in the GP Redemption, Subsidiary Transfers or the Holdco Transaction, as applicable.

(iii) If and when the Authorizations, the absence of which caused the deferral of transfer of any Transferred Asset pursuant to this Section 2.1(e), are obtained, the transfer of the applicable Transferred Asset to Holdco shall automatically and without further action be effected in accordance with the terms of this Agreement and the applicable Transaction Documents.

(iv) Neither Time Warner Cable nor any Affiliate thereof shall be obligated, in connection with the foregoing, to expend any money unless the necessary funds are advanced by Holdco, other than reasonable out-of-pocket expenses, attorneys' fees and recording or similar fees, all of which shall be promptly

reimbursed by Holdco except as otherwise specifically provided in this Agreement, including for this purpose Section 3.4.

(v) Prior to the Holdco Transaction, Time Warner Cable shall deliver to Holdco a list identifying, in reasonable detail and to Time Warner Cable's knowledge, the Delayed Transfer Assets and the Authorizations required therefor.

(vi) The parties hereto further agree (A) that any Delayed Transferred Assets referred to in this Section 2.1(e) shall be treated for all Income Tax purposes as assets of Holdco (or any successor thereof) and
(B) not to report or take any Tax position (on a Tax Return or otherwise) inconsistent with such treatment (unless required by a change in applicable Tax law or a good faith resolution of a contest, provided that if such a resolution would result in Time Warner Cable taking a position that is inconsistent with any reporting position required to be taken under the Tax Matters Agreement the provisions of the Tax Matters Agreement shall apply).

Section 2.2 Assumed Liabilities. At the Closing and except as otherwise provided for herein, Holdco shall assume, and, from and after the Closing, Holdco shall pay, discharge and perform as and when due, all (a) Liabilities of Time Warner Cable and its Affiliates to the extent arising out of, resulting from or associated with the ownership and operation of the Transferred Assets and/or the Transferred Business prior to Closing, or the transfer of such Transferred Assets and/or Transferred Business at Closing, including all Master Pre-Closing Liabilities, but in each case only to the extent such Liabilities are reflected in the Closing Net Liabilities Amount used to calculate the Final Closing Adjustment Amount and (b) all Liabilities to the extent relating to, arising out of or resulting from the ownership and operation of the Transferred Assets and/or the Transferred Business after the Closing, including all Specified Launch Support Liabilities, (clauses (a) and (b)) collectively, the "Assumed Liabilities"). The Assumed Liabilities shall not include (i) Excluded Tax Liabilities, (ii) Liabilities set forth on Schedule 2.2, (iii) Liabilities for long-term debt (including the current portion thereof), (iv) Liabilities to the extent arising out of, resulting from or associated with the use, ownership or operation of the Excluded Assets other than Master Pre-Closing Liabilities and Specified Launch Support Liabilities,
(v) any Liabilities of Time Warner Cable or its Affiliates other than Assumed Liabilities, (vi) any Liabilities of the type that would be excluded from financial statements by reason of the GAAP Adjustments or (vii) any intercompany payable created to record cash lent to the Transferred Systems prior to Closing (clauses (i) through (vii) collectively, "Excluded Liabilities").

Section 2.3 Registration Rights Agreement.

(a) Comcast Trust and Time Warner Cable each hereby acknowledge and agree that any request by Comcast Trust for a demand registration under the Registration Rights Agreement prior to the date hereof (the "Previous Request") will be treated for all purposes as if it had not been made. Unless and until a subsequent request for a demand registration is delivered on or after the Tolling

Termination Date to Time Warner Cable in accordance with the Registration Rights Agreement, Time Warner Cable will not be required to take any action under the Registration Rights Agreement in respect of any request for a demand registration thereunder.

(b) Except as set forth in Section 2.3 of the TWC Redemption Agreement, Comcast Trust hereby agrees on behalf of itself and its Controlled Affiliates that it shall not exercise (or cause to be exercised) (or make any request with respect thereto) any of its demand registration rights under the Registration Rights Agreement with respect to any "Registrable Securities" (as defined in the Registration Rights Agreement) beneficially owned by it or any of its Controlled Affiliates or otherwise prior to the Tolling Termination Date. The foregoing shall be deemed to amend, modify and supplement the Registration Rights Agreement; provided, that, it is acknowledged and agreed by Time Warner Cable that nothing contained in this Section 2.3 shall be deemed a revocation by Comcast Trust for purposes of Section 4.1(c) of the Registration Rights Agreement.

(c) Comcast Trust hereby agrees that it will not from and after the date hereof until the Tolling Termination Date transfer or otherwise dispose of any Registrable Securities to any Person unless prior to such transfer or disposition (and as a condition thereto) such Person agrees in writing to be bound by this Section 2.3 as if a party hereto and delivers a written acknowledgment of the same to Time Warner Cable (including with respect to any subsequent transfers or dispositions).

(d) In its capacity as the ultimate indirect beneficiary of the Comcast Trust, Comcast Parent hereby expressly acknowledges and approves of the agreement made by Comcast Trust in this Section 2.3.

Section 2.4 Estimated Closing Adjustment Amount. No later than two Business Days prior to the Closing Date, Time Warner Cable will deliver to Comcast Trust and Comcast Subsidiary a good faith estimate of the Subscriber Adjustment Amount (the "Estimated Subscriber Adjustment Amount"), if any, and a good faith estimate of the Closing Net Liabilities Adjustment Amount (the "Estimated Closing Net Liabilities Adjustment Amount"), if any, together with appropriate documentation supporting such estimates. The sum of the Estimated Subscriber Adjustment Amount and the Estimated Closing Net Liabilities Adjustment Amount is referred to herein as the "Estimated Closing Adjustment Amount" and may be a positive or a negative amount.

Section 2.5 Final-Closing Adjustment Amount.

(a) No later than ninety (90) days following the Closing Date (the "Delivery Date"), (i) Comcast Subsidiary will deliver to Time Warner Cable (A) its determination of the Closing Net Liabilities Amount for Holdco and based on the foregoing, the Closing Net Liabilities Adjustment Amount, (B) its determination of the Transferred Closing Subscriber Number and the Transferred Base Subscriber Number and (C) appropriate documentation supporting such determinations (the "Comcast

Statement") and (ii) Time Warner Cable will deliver to Comcast Subsidiary (A) its determination of the Retained Closing Subscriber Number and the Retained Base Subscriber Number and (B) appropriate documentation supporting such determinations (the "Time Warner Cable Statement"). Each such statement shall be prepared in good faith in accordance with this Agreement based on the books and records of the Transferred Systems held by Holdco or based on the books and records of the Time Warner Cable Retained Cable Systems held by Time Warner Cable, as the case may be.

(b) If Time Warner Cable disagrees with any item in the Comcast Statement delivered pursuant to Section 2.5(a)(i), Time Warner Cable may, within ninety (90) days after the Delivery Date, deliver a notice to Comcast Subsidiary disagreeing with such item and setting forth Time Warner Cable's calculation of such item, together with appropriate documentation supporting such determination. Any such notice of disagreement shall specify those items or portions thereof as to which Time Warner Cable disagrees, and Time Warner Cable shall be deemed to have agreed with all other items and portions of items contained in the Comcast Statement delivered to it pursuant to Section 2.5(a)(i). If Comcast Subsidiary disagrees with any item in the Time Warner Cable Statement delivered pursuant to Section 2.5(a)(ii), Comcast Subsidiary may, within ninety (90) days after the Delivery Date, deliver a notice to Time Warner Cable disagreeing with such item and setting forth Time Warner Cable's calculation of such item, together with appropriate documentation supporting such determination. Any such notice of disagreement shall specify those items or portions thereof as to which Comcast Subsidiary disagrees, and Comcast Subsidiary shall be deemed to have agreed with all other items and portions of items contained in the Time Warner Cable Statement delivered to it pursuant to Section 2.5(a)(ii). Any such notice shall be prepared in good faith in accordance with this Agreement based on the books and records of the Transferred Systems held by Holdco or the Time Warner Cable Retained Cable Systems, as the case may be.

(c) If a notice of disagreement shall be duly delivered pursuant to Section 2.5(b), Time Warner Cable and Comcast Subsidiary shall, during the thirty (30) days following such delivery, use their commercially reasonable efforts to reach agreement on the disputed items and amounts. If during such period, Time Warner Cable and Comcast Subsidiary are unable to reach such agreement, they shall promptly jointly retain a nationally recognized accounting firm that is not the principal independent accountant of either Comcast Parent or Time Warner Cable's ultimate parent (the "Accounting Referee") to resolve the disputed items or amounts. In making its determinations of the propriety of items and amounts, the Accounting Referee shall consider only those items (or portions thereof) or amounts as to which Time Warner Cable and Comcast Subsidiary disagree and, with respect to each item (or portion thereof) or amount, shall select a number within the range of the dispute between Time Warner Cable and Comcast Subsidiary. The Accounting Referee shall deliver to Time Warner Cable and Comcast Subsidiary, as promptly as practicable (but, in any event, within thirty (30) days after submission of the dispute to it), a report setting forth its resolution of the disputed items and amounts and based thereon (and on the items (or portions thereof) and amounts not in dispute) the Closing Adjustment Amount. Such report shall be final and binding upon Time Warner Cable and Comcast Subsidiary. The

costs of the Accounting Referee shall be shared equally by Time Warner Cable and Comcast Subsidiary. Holdco and Time Warner Cable will, and will cause their Affiliates and independent accountants to, cooperate and assist each other and the Accounting Referee in conducting their respective reviews of the amounts referred to in this Section 2.5, including without limitation, making available to the extent necessary any books, records, work papers and personnel.

(d) As used herein, the term "Final Closing Adjustment Amount" means, with respect to any determination of the Closing Adjustment Amount (as defined below): (1) if no notice of disagreement is delivered by either party in accordance with Section 2.5(b) with respect to the other party's determination of an element used to calculated the Closing Adjustment Amount, the Closing Adjustment Amount calculated based on the amounts in the Comcast Statement and the Time Warner Cable Statement; (2) if either party delivers a notice of disagreement in accordance with Section 2.5(b) and the parties reach agreement on all disputed items within 30 days following such delivery, the Closing Adjustment Amount as determined in accordance with such agreement; or (3) if either party delivers a notice of disagreement in accordance with Section 2.5(b) and the parties fail to reach agreement within 30 days, the Closing Adjustment Amount as calculated based on the undisputed amounts in the Comcast Statement and Time Warner Cable Statement and with respect to disputed items, as determined by the Accounting Referee. As used herein, the term "Closing Adjustment Amount" means the sum of the Subscriber Adjustment Amount and the Closing Net Liabilities Amount.

(e) If the Final Closing Adjustment Amount exceeds the Estimated Closing Adjustment Amount, Time Warner Cable will pay to Holdco the amount of such excess. If the Estimated Closing Adjustment Amount exceeds the Final Closing Adjustment Amount, Holdco will pay to Time Warner Cable the amount of such excess. Any payment pursuant to this Section 2.5(e) shall be made in cash at a mutually convenient time and place within three (3) days following the determination of the Final Closing Adjustment Amount. The amount of any payment to be made pursuant to this Section 2.5(e) shall bear interest from and including the Closing Date to and including the date of payment at the Base Interest Rate.

(f) Tax Treatment of Adjustment Payments and Interest.

(i) For all Tax purposes (unless required by a change in applicable Tax law or a good faith resolution of a contest) the parties hereto agree to treat and to cause their respective Affiliates to treat any payment pursuant to Section 2.5(e) to Holdco by Time Warner Cable (a "Time Warner Cable Adjustment Payment") or to Time Warner Cable by Holdco (a "Holdco Adjustment Payment" and, each, an "Adjustment Payment") as (x) with respect to a Time Warner Cable Adjustment Payment, a contribution by Time Warner Cable to Holdco occurring immediately prior to the Closing, and (y) with respect to a Holdco Adjustment Payment, an adjustment to the Cash Amount transferred by Time Warner Cable to Holdco pursuant to the Holdco Transaction occurring immediately prior to the Closing.

(ii) Notwithstanding Section 2.5(f)(i) above, any Adjustment Payments that represent interest payable under Section 2.5(e) hereof shall be treated for all Tax purposes (unless required by a change in applicable Tax law or a good faith resolution of a contest), as (1) deductible to the payor and (2) taxable to the payee.

(g) As used herein, the term "Closing Net Liabilities Adjustment Amount" means the excess, if any, of the Closing Net Liabilities Amount over $15,000,000. The "Closing Net Liabilities Amount" shall equal the amount of all Liabilities of Holdco (other than the Holdco Transaction Liabilities) as of the Closing (after giving effect to the Closing), less the amount of all current assets (other than inventory and the Excluded Transferred Cash) of Holdco as of the Closing (after giving effect to the Closing), in each case as would be reflected on the face of a balance sheet (excluding any footnotes thereto) prepared in accordance with GAAP; provided that, if Comcast Subsidiary or one of its Affiliates shall have made the request provided in the first sentence of Section 3.1(g)(v), the Actuarial Amount shall be treated as a Liability on the face of such balance sheet prepared in accordance with GAAP for purposes of this calculation and if Comcast Subsidiary or any of its Affiliates has not made such request the Liabilities assumed by Comcast Subsidiary pursuant to the last sentence of Section 3.1(g)(v) shall be treated as a Liability on the face of such balance sheet prepared in accordance with GAAP for purposes of this calculation. The Closing Net Liabilities Amount shall be deemed to include (without duplication) assets or Liabilities of Comcast Subsidiary or its Affiliates or Holdco conveyed or assumed (as applicable) pursuant to Section 3.1, to the extent such assets or Liabilities would be reflected on the face of a balance sheet of the Transferred Business (excluding any footnotes thereto) prepared in accordance with GAAP as of the Closing Time, but without giving effect to the Closing. Current assets shall include, but shall not be limited to, all cash and cash equivalents (including the cash paid to Comcast Subsidiary pursuant to Section 3.1(h) but excluding the Excluded Transferred Cash), prepaid expenses, funds on deposit with third parties, and accounts receivable other than (i) the portion of any account receivable resulting from cable, telephony, data or Internet service sales that is sixty (60) days or more past due as of the Closing Date, (ii) the portion of any national agency account receivable resulting from advertising sales that is one hundred and twenty (120) days or more past due as of the Closing Date, (iii) any non-national agency account receivable resulting from advertising sales any portion of which is ninety (90) days or more past due as of the Closing Date, (iv) accounts receivable from customers whose accounts are inactive as of the Closing Date or (v) any accounts receivable that have not arisen from a bona fide transaction in the ordinary course of business. For purposes of making the foregoing "past due" calculations, the billing statements of a Transferred System will be deemed to be due and payable consistent with ordinary accounting practice. Current Assets shall include the total SMATV Consideration paid in respect of any Excluded SMATV Acquisition. For the avoidance of doubt, Liabilities shall include, but are not limited to, the Actuarial Amount (if Comcast Subsidiary or any of its Affiliates shall have made the request provided in the first sentence of Section 3.1(g)(v)), Specified Launch Support Liabilities, accounts payable, accrued expenses (including all accrued vacation time, sick days, other accrued paid time off, copyright fees, programming expenses, Applicable Taxes, franchise fees and other license fees or charges), capitalized lease obligations, Contract obligations that are due and payable (including lease obligations), due and

payable obligations that are subject to materialmen's, mechanic's and similar Liens, Liabilities with respect to unearned income and advance payments (including subscriber prepayments and deposits for converters, encoders, cable television service and related sales) and interest, if any, required to be paid on advance payments.

(h) "Subscriber Adjustment Amount" means an amount (which may be positive or negative) equal to the sum of the (A) product of (x) $3,500 times
(y) the Original Relative Percentage Amount times (z) the Original Transferred Base Subscriber Number plus (B) (x) $3,500 times (y) the Designated Relative Percentage Amount times (z) the Designated Transferred Base Subscriber Number. As used herein, the term "Original Relative Percentage Amount" means an amount (which shall be expressed as a percentage and may be positive or negative) equal to (i) the Original Retained Percentage (as defined below) minus (ii) the Original Transferred Percentage (as defined below). As used herein, the term "Original Retained Percentage" means a fraction (expressed as a percentage) the numerator of which is the number of Individual Subscribers of the Time Warner Cable Retained Cable Systems as of the Closing Date (the "Retained Closing Subscriber Number") and the denominator of which is the number of Individual Subscribers of the Time Warner Cable Retained Cable Systems as of July 31, 2004 (the "Original Retained Base Subscriber Number"). As used herein, the term "Original Transferred Percentage" means a fraction (expressed as a percentage) the numerator of which is (A) the number of Individual Subscribers of the Original Systems as of the Closing Date minus (B) the number of Individual Subscribers of the Original Systems acquired pursuant to any Excluded SMATV Acquisition (the "Original Transferred Closing Subscriber Number") and the denominator of which is the number of Individual Subscribers of such Original Systems as of July 31, 2004 (the "Original Transferred Base Subscriber Number"). As used herein, the term "Designated Relative Percentage Amount" means an amount (which shall be expressed as a percentage and may be positive or negative) equal to (iii) the Designated Retained Percentage (as defined below) minus (iv) the Designated Transferred Percentage (as defined below). As used herein, the term "Designated Retained Percentage" means a fraction (expressed as a percentage) the numerator of which is Retained Closing Subscriber Number and the denominator of which is the number of Individual Subscribers of the Time Warner Cable Retained Cable Systems as of December 31, 2004 (the "Designated Retained Base Subscriber Number"). As used herein, the term "Designated Transferred Percentage" means a fraction (expressed as a percentage) the numerator of which is (A) the number of Individual Subscribers of the Designated Systems as of the Closing Date minus (B) the number of Individual Subscribers of the Designated Systems acquired pursuant to any Excluded SMATV Acquisition (the "Designated Transferred Closing Subscriber Number") and the denominator of which is the number of Individual Subscribers of such Designated Systems as of December 31, 2004 (the "Designated Transferred Base Subscriber Number").

ARTICLE 3
RELATED MATTERS

Section 3.1 Employees.

(a) Employees. Each Transferred System Employee who is an employee of Time Warner Cable or one of its Subsidiaries as of immediately prior to the Holdco Transaction, including individuals on leave of absence, short-term disability and long-term disability, shall become an employee of Holdco as of the consummation of the Holdco Transaction. Employees who commence employment with Holdco in accordance with the preceding sentence shall be referred to herein as "Comcast Transferred System Employees." For the avoidance of doubt, if any employee holding the job title as of the date hereof (or, with respect to the Designated Systems, the Amendment Date) listed on Schedule 3.1(l)(i) (as previously identified by name to Comcast Subsidiary by Time Warner Cable) remains employed by Time Warner Cable or its Affiliates on the Closing Date as permitted by Section 3.1(l) hereof, such employee shall not be a Comcast Transferred System Employee. For purposes of this Article 3, "Transferred System Employees" shall not include those employees holding the job titles as of the date hereof (or, with respect to the Designated Systems, the Amendment Date) listed on Schedule 3.1(a) (as previously identified by name to Comcast Subsidiary by Time Warner Cable) (such employees, the "Retained Employees") and none of Holdco, Comcast Subsidiary or any of their respective Affiliates shall have any obligation or Liability with respect to any of the Retained Employees. Holdco (or its Affiliates as of the Closing) shall take such actions as are reasonably necessary to effectuate the transfer of employment described in this Section 3.1(a), including, without limitation, making a general offer of employment to each such Transferred System Employee. The parties hereto shall not take any action that is not otherwise permitted under this Article 3 that would interfere with such employees becoming employed by Holdco as of the consummation of the Holdco Transaction. Immediately following the Closing, Comcast shall cause the Comcast Transferred System Employees to be paid base salary or wage rates no less than those rates provided to such employees immediately prior to the consummation of the Holdco Transaction and to be provided benefit plan participation at levels no less favorable than those applicable to similarly situated employees of Comcast Subsidiary or its Affiliates at the time of the Closing. As of the Closing, Holdco shall have no employees other than employees who are primarily employed in connection with the Transferred Systems.

(i) Holdco shall recognize, as to each Comcast Transferred System Employee, the period of service (without duplication of benefits) with Time Warner Cable and any of its Affiliates (other than Holdco) prior to the Closing under all Time Warner Cable Benefit Plans to the extent so recognized by Time Warner Cable and its Affiliates prior to the Holdco Transaction. In addition, Holdco shall recognize, as to each Comcast Transferred System Employee, all vacation, sick days and other paid time off accrued by such Comcast Transferred System Employee but unused as of the consummation of the Holdco Transaction, in each case to the extent such amounts are reflected in the Closing Net Liabilities Amount used in calculating the Final Adjustment Amount.

(ii) Notwithstanding any provision in this Agreement to the contrary, the parties hereto agree that, except to the extent used in connection with the funding of any Time Warner Cable Benefit Plan that is continued by Time Warner Cable or any of its Affiliates (other than Holdco), as of the consummation of the Holdco Transaction the parties hereto shall cause to be transferred to or held for the benefit of

Holdco their interests in all life, medical and other insurance policies to the extent relating to Transferred System Employees.

(iii) Subject to obtaining any necessary consents and except as provided in Section 7.2(h) or as otherwise provided in this Agreement, as of the consummation of the Holdco Transaction, Time Warner Cable and its Affiliates (other than Holdco) shall assign to Holdco, and Holdco shall assume, (A) all rights, obligations and Liabilities of Time Warner Cable and its Affiliates (other than Holdco) (x) under all employment agreements, unfunded compensation arrangements and employee related insurance policies and (y) for benefits accrued and payable now and in the future under all Time Warner Cable Benefit Plans, and (B) all other employment-related rights, obligations and Liabilities, in each case to the extent relating to Transferred System Employees (other than Liabilities relating to or arising under the "Time Warner Cable 401(k) Plan", the "Time Warner Cable Pension Plans" (each as defined below), the Time Warner Cable Excess Benefit Pension Plan and any equity-based compensation plans maintained by Time Warner Cable or its Affiliates) (such Liabilities shall be included in the meaning of Assumed Liabilities). With respect to the period prior to Closing, any such Liabilities shall only be assumed to the extent reflected in the Closing Net Liabilities Amount used in calculating the Final Adjustment Amount.

(iv) The parties hereto agree that, except to the extent that sponsorship of a funded Time Warner Cable Benefit Plan is continued by Time Warner Cable or any of its Affiliates (other than Holdco) and except as provided in Section 7.2(h) or as otherwise provided in this Agreement, the Transferred Assets shall include any monies, contracts or other funds relating to the participation of any Transferred System Employees in any Time Warner Cable Benefit Plan, in each case to the extent such amounts, monies, contracts or other funds are reflected in the Closing Net Liabilities Amount used in calculating the Final Adjustment Amount.

(v) Subject to any required notification, as of the consummation of the Holdco Transaction, the parties agree to take such action, and to cause their Affiliates to take such action, as is necessary to cause Holdco to succeed to the rights and obligations of Time Warner Cable and its Affiliates (other than Holdco), including its rights and obligations with respect to any "multiemployer plan" (as defined in Section 3(37) of ERISA), under any collective bargaining agreement (if any so exist) to the extent such agreement covers Transferred System Employees.

(b) Continued Employment with Holdco.

(i) Effective as of the Closing, all Comcast Transferred System Employees shall continue to be employees of Holdco and shall cease to be employees of Time Warner Cable or any of its Subsidiaries. Effective as of the Closing, Time Warner Cable shall discontinue providing benefits to Comcast Transferred System Employees under all Time Warner Cable Benefit Plans except as otherwise required by law or as contemplated under this Agreement.

(c) Severance-Related Liabilities. Comcast Subsidiary and Holdco shall be responsible for all Liabilities with respect to any Comcast Transferred System Employee in connection with the termination of such employee's employment on or after the Closing, and any Liability for WARN and severance payments and benefits under the TWC Severance Pay Plan or any individual employment or severance arrangement, each, in accordance with its terms, applicable to a Transferred System Employee who rejects the general offer of employment made pursuant to Section 3.1(a). Notwithstanding the foregoing, Comcast Subsidiary and its Affiliates shall have no Liability with respect to the termination of employment of the employees holding the job titles as of the date hereof (or, with respect to the Designated Systems, the Amendment Date) listed on Schedule 3.1(l)(i), if any such employee is hired by Time Warner Cable or any of its Affiliates as permitted by Section 3.1(l) in the 12 month period following the Closing.

(d) Participation in Benefit Plans. With respect to Comcast Transferred System Employees, compensation and service of such employees with Time Warner Cable and its Affiliates prior to Closing shall be recognized under all applicable Comcast Benefit Plans to the extent so recognized under the corresponding Time Warner Cable Benefit Plans prior to Closing, except to the extent that duplication of benefits would result or as otherwise provided in this Agreement.

(e) Tax-Qualified Defined Contribution Plans. As of and following the Closing, Transferred System Employees shall not be entitled to make contributions to or to benefit from matching or other contributions under the TWC Savings Plan ("Time Warner Cable 401(k) Plan"). None of Comcast Subsidiary, any of its Affiliates or Holdco shall have any Liability with respect to the Time Warner Cable 401(k) Plan, except as may be provided in any other agreement between Time Warner Cable or any of its Affiliates, on the one hand, and Comcast Subsidiary or any of its Affiliates (other than Holdco), on the other. Comcast Transferred System Employees who were participants in the Time Warner Cable 401(k) Plan immediately prior to the Closing shall become participants in a defined contribution pension plan qualified under Section 401(a) of the Code and meeting the requirements of Section 401(k) of the Code established or maintained by Comcast Subsidiary or its Affiliates (the "Comcast
401(k) Plan") as of the Closing; provided, that any Comcast Transferred System Employee with less than 6 months of service with Time Warner Cable or any of its Affiliates immediately prior to Closing will only become a participant in the Comcast 401(k) Plan after completing 6 months of combined continuous service with Time Warner Cable or any of its Affiliates (other than Holdco) and Holdco or any of its Affiliates (other than Time Warner Cable). Comcast Subsidiary or its Affiliates shall cause the Comcast 401(k) Plan to accept cash eligible rollover distributions (as defined in Section 402(c)(4) of the Code) by Comcast Transferred System Employees with respect to account balances distributed to them on or after the Closing Date by the Time Warner Cable 401(k) Plan.

(f) Tax-Qualified Defined Benefit Plans. As of the Closing, the Transferred System Employees shall cease accruing benefits under the Time Warner Cable Pension Plan, and the Time Warner Cable Union Pension Plan (collectively, the "Time Warner Cable Pension Plans"). None of Comcast Subsidiary, any of its Affiliates

or Holdco shall have any Liability with respect to the Time Warner Cable Pension Plans or the Time Warner Cable Excess Benefit Pension Plan except as may be provided in any other agreement between Time Warner Cable or any of its Affiliates, on the one hand, and Comcast Subsidiary or any of its Affiliates (other than Holdco), on the other.

(g) Health and Welfare Plans.

(i) All Liabilities relating to, arising out of, or resulting from health and welfare coverage or claims incurred by or on behalf of each Transferred System Employee under any Time Warner Cable Benefit Plan that is a health or welfare plan within the meaning of Section 3(1) of ERISA (each a "Time Warner Cable Health or Welfare Plan") prior to the Closing shall be Liabilities of Holdco or one of its Affiliates to the extent such Liabilities are reflected in the Closing Net Liabilities Amount used in calculating the Final Adjustment Amount.

(ii) Other than as required by COBRA, each Transferred System Employee shall cease to participate in any Time Warner Cable Health or Welfare Plan as of the Closing.

(iii) Each Comcast Transferred System Employee who, after the recognition of service provided for in Section 3.1(d) satisfies the eligibility requirements under the applicable Comcast Benefit Plan that is a health or welfare plan within the meaning of Section 3(1) of ERISA (each, a "Comcast Health or Welfare Plan"), shall be (A) entitled to enroll, effective as of the Closing, as a newly-eligible employee of Comcast Subsidiary or one of its Affiliates in the Comcast Health or Welfare Plans then available to similarly situated employees of Comcast Subsidiary or any of its Affiliates and (B) eligible to elect such coverage and benefit options as may then be available or provided under the terms of the Comcast Health or Welfare Plans to new employees of Comcast Subsidiary or any of its Affiliates. All compensation, benefit elections, deductible payments, payments toward the applicable out-of-pocket maximums and other benefit-affecting determinations affecting Comcast Transferred System Employees that, as of immediately prior to the Closing, were recognized under any Time Warner Cable Health or Welfare Plan with respect to the plan year in which the Closing occurs shall receive full recognition, credit and validity and be taken into account under the corresponding Comcast Health or Welfare Plan as of the Closing with respect to that same plan year.

(iv) With respect to any Comcast Transferred System Employee and his or her dependents (if any) who were covered under any Time Warner Cable Health or Welfare Plan immediately prior to the Closing, Comcast Subsidiary shall take, or cause to be taken, the appropriate actions reasonably necessary to ensure that the proof of insurability requirements (if any) and the preexisting condition exclusions (if any) applicable to new enrollees under the corresponding Comcast Health or Welfare Plan (if any) are waived with respect to such Comcast Transferred System Employee, to the extent that such requirements and exclusions were waived under any similar corresponding Time Warner Cable Health Welfare Plan.

(v) Upon the written request of Comcast Subsidiary or one of its Affiliates delivered to Time Warner Cable at least 60 days prior to the expected Closing Date, Time Warner Cable shall, or shall cause its Affiliates to, permit those Transferred System Employees on long-term disability or who are receiving retiree life or retiree medical benefits at the time of the Closing and who are listed on a Schedule 3.1(g)(v) (the "Selected Employees"), such Schedule 3.1(g)(v) to be updated ten Business Days prior to the expected Closing Date, to continue to receive such coverage under the applicable long-term disability, retiree medical or retiree life plan, as applicable, sponsored or maintained by Time Warner Cable or its Affiliates and the Actuarial Amount shall be determined and taken into account as provided in Section 1.1 in the definition of "Cash Amount" and as provided in Section 2.5(g) in the definition of "Closing Net Liabilities Amount". If Comcast Subsidiary or one of its Affiliates makes the request provided in the first sentence of this Section 3.1(g)(v), except for the payment of the Actuarial Amount, any Liability associated with any long-term disability, retiree life or retiree medical benefits, as applicable, relating to or in connection with the Selected Employees shall not be an Assumed Liability and shall be included in the meaning of Excluded Liabilities. If Comcast Subsidiary or one of its Affiliates does not make the request provided in the first sentence of this Section 3.1(g)(v), Comcast Subsidiary shall assume all Liabilities associated with any long-term disability, retiree life or retiree medical benefits relating to or in connection with the Selected Employees and such Liabilities shall be reflected in the Closing Net Liabilities Amount used in calculating the Final Adjustment Amount.

(h) Reimbursement Account Plans. To the extent any Comcast Transferred System Employee made contributions to any Time Warner Cable Benefit Plan that is a reimbursement account plan, such as a health care or dependent care reimbursement plan ("Time Warner Cable Reimbursement Plan"), during the calendar year in which the Closing occurs, such Comcast Transferred System Employee shall be permitted to file claims for reimbursement under a Comcast Benefit Plan that is a comparable reimbursement account plan ("Comcast Reimbursement Plan") for qualifying expenses incurred during the calendar year in which the Closing occurs, including periods prior to the Closing, for a total amount not to exceed the amount elected by such Comcast Transferred System Employee for that year under such plan. Account balances, whether positive or negative, shall be transferred and assigned to the appropriate Comcast Reimbursement Plan by Time Warner Cable or an Affiliate, as applicable. As soon as practicable following the Closing, Time Warner Cable shall pay to Comcast Subsidiary a cash amount (which amount shall be deemed to constitute a current asset of Holdco for purposes of Section 2.5(g)) equal to the aggregate positive balances as of the Closing Date of each flexible spending account of each Comcast Transferred System Employee under the applicable Time Warner Cable Reimbursement Plan. Comcast Subsidiary shall assume all obligations of Time Warner Cable with respect to each Transferred System Employee under the applicable Time Warner Cable Reimbursement Plan.

(i) COBRA. Comcast Subsidiary shall, or shall cause, each Comcast Transferred System Employee and each "qualified beneficiary" (as defined in Title X of the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, and as codified in Section 4980B of the Code and ERISA Sections 601 through 608

("COBRA")) of each Comcast Transferred System Employee, who elects continued group health plan coverage under COBRA or incurs a "qualifying event" (as defined in COBRA) on or after the Closing, to be offered COBRA coverage on and after the Closing under a Comcast Health or Welfare Plan. Time Warner Cable and its Affiliates (other than Holdco) shall retain all obligations and Liabilities with respect to Transferred System Employees who elected continued group plan coverage under COBRA or incurred a "qualifying event" prior to the Closing.

(j) WARN Compliance. Comcast Subsidiary and Holdco shall be responsible for any Liability arising under the Worker Adjustment and Retraining Notification Act and any similar state or local laws (collectively, "WARN") with respect to the termination of employment of Comcast Transferred System Employees on or after the Closing. During the period prior to the Closing, the parties agree to cooperate with each other in order to comply with WARN, including, but not limited to, Holdco or its Affiliates providing to Transferred System Employees and any applicable governmental entities or other required persons (on behalf of itself and Comcast Subsidiary) any notice and other requirements under WARN.

(k) Workers' Compensation Liabilities. Comcast Subsidiary and Holdco shall be responsible for all workers' compensation Liabilities relating to, arising out of, or resulting from any claim incurred for a compensable injury sustained by a Comcast Transferred System Employee on or after the Closing and, to the extent reflected in the Closing Net Liabilities Amount used in calculating the Final Adjustment Amount, before Closing.

(l) Non-Solicit Provisions.

(i) Except for the employees holding the job titles as of the date hereof (or, with respect to the Designated Systems, the Amendment Date) listed on Schedule 3.1(l)(i) (as previously identified by name to Comcast Subsidiary by Time Warner Cable), from the date of this Agreement (or, with respect to the Designated Systems, the Amendment Date) until the first anniversary of the Closing neither Time Warner Cable nor any of its Subsidiaries will solicit any Transferred System Employees (other than for the benefit of the Transferred Systems or with the prior written consent of Comcast Subsidiary, in each case, prior to the Closing or to comply with the provisions set forth in Section 3.1(a)).

(ii) Except for the employees holding the job titles as of the date hereof (or, with respect to the Designated Systems, the Amendment Date) listed on Schedule 3.1(l)(i) (as previously identified by name to Comcast Subsidiary by Time Warner Cable), from the Amendment Date until the first anniversary of the Closing neither Time Warner Cable nor any of its Subsidiaries will hire any Transferred System Employees (other than for the benefit of the Transferred Systems or with the prior written consent of Comcast Subsidiary, in each case, prior to the Closing or to comply with the provisions set forth in Section 3.1(a)).

(iii) Notwithstanding the foregoing, advertising through mass media in which an offer of employment, if any, is available to the general public, such as magazines, newspapers and sponsorships of public events shall not be prohibited by this Section 3.1(l). Solely for purposes of this Section 3.1(l), Transferred System Employees shall in no event include the beneficiary or dependent of any Transferred System Employee unless such beneficiary or dependent is otherwise a Transferred System Employee.

(iv) From the Closing Date until the first anniversary of the Closing, neither Comcast Subsidiary nor any of its Affiliates will hire any Retained Employees.

(v) Time Warner Cable or its Affiliates shall make available to Comcast Subsidiary or its Affiliates for consultation and transitional services Retained Employees and those employees holding the job titles as of the date hereof (or, with respect to the Designated Systems, the Amendment Date) listed on Schedule 3.1(l)(i) (if hired or retained by Time Warner Cable or its Affiliates as permitted by this Section 3.1(l)), as reasonably requested by Comcast Subsidiary or its Affiliates. The provision of any such services shall be in accordance with the terms of Section 7.9 hereof and shall not unreasonably interfere with the performance of any such employee's duties to Time Warner Cable or its Affiliates.

(vi) Solely for purposes of this Section 3.1(l), "Transferred System Employee" shall be applied so as to include any individual who as of any relevant date (which shall include the period from the date hereof
(or, with respect to employees of the Designated Systems, the Amendment Date) through the Closing Date) would be a Transferred System Employee if the Closing Date occurred on such date.

(m) Confidentiality and Proprietary Information. No provision of this Section 3.1 shall be deemed to release any individual for any violation of a plan, policy, agreement or guideline regarding non-competition or pertaining to confidential or proprietary information of Time Warner Cable or any of its Affiliates or otherwise relieve any individual of his or her obligations under such guideline or any such plan, program or arrangement.

(n) No Implied Rights or Third Party Beneficiaries. The parties hereto hereby acknowledge and agree that no provision of this Agreement shall be construed to create any right, or accelerate entitlement, to any compensation or benefit whatsoever on the part of any Transferred System Employee, Retained Employee or other future, present, or former employee of Comcast Subsidiary, Holdco, Time Warner Cable, or any of their respective Affiliates, under any Comcast Benefit Plan or Time Warner Cable Benefit Plan or otherwise. Without limiting the generality of the foregoing: (i) except as expressly provided in this Agreement, nothing in this Agreement shall preclude Comcast Subsidiary or any of its Affiliates, at any time after the Closing, from amending, merging, modifying, terminating, eliminating, reducing or otherwise altering in any respect any Comcast Benefit Plan, any benefit under any such plan or any

trust, insurance policy or funding vehicle related to any Comcast Benefit Plan; and (ii) except as expressly provided in this Agreement, nothing in this Agreement shall preclude Time Warner Cable or any of its Affiliates, at any time from amending, merging, modifying, terminating, eliminating, reducing, or otherwise altering in any respect any Time Warner Cable Benefit Plan, any benefit under any such plan or any trust, insurance policy or funding vehicle related to any Time Warner Cable Benefit Plan. Nothing in this Section 3.1 or elsewhere in this Agreement shall be deemed to make any employee of the parties a third party beneficiary of this Section 3.1 or any rights relating hereto.

(o) Collective Bargaining. To the extent any provision of this Agreement is contrary to the provisions of any collective bargaining agreement to which Time Warner Cable or any of its Subsidiaries is a party as of the date hereof (or, with respect to the Designated Systems, the Amendment Date) that covers Transferred System Employees or Retained Employees, the terms of such collective bargaining agreement shall prevail. Should any provision of this Agreement be deemed to relate to a topic determined by an appropriate authority to be a mandatory subject of collective bargaining with respect to the Transferred System Employees, Comcast Subsidiary or Time Warner Cable or any of their respective Subsidiaries may be obligated to bargain with the union representing affected employees concerning those subjects. Comcast Subsidiary and its Subsidiaries shall be responsible for Liabilities with respect to any obligations to any collective bargaining unit that represents as of the date hereof (or, with respect to the Designated Systems, the Amendment Date) Transferred System Employees to the extent consistent with Comcast's rights and responsibilities under applicable labor law. If Time Warner Cable or any of its Affiliates acquires a duty to bargain with any labor organization with respect to Transferred System Employees, then Time Warner Cable or its Affiliates shall
(i) give prompt written notice of such development to Comcast Subsidiary and
(ii) not enter into any contract with such labor organization that contains a successor clause or otherwise purports to bind Comcast Trust, Comcast Subsidiary, Holdco (after the Closing) or any of their Affiliates in any way, without the prior written consent of Comcast Subsidiary.

Section 3.2 Use of Names and Logos. For a period of 150 days after Closing, Holdco shall be entitled to use the trademarks, trade names, service marks, service names, logos and similar proprietary rights of Time Warner Cable and its Affiliates to the extent incorporated in or on the Transferred Assets (collectively, the "Time Warner Cable Marks"), provided, that
(a) Comcast Subsidiary and Holdco acknowledge that the Time Warner Cable Marks belong to Time Warner Cable and its Affiliates, and that neither Comcast Subsidiary nor Holdco shall acquire any rights therein during or pursuant to such 150-day period; (b) all such Transferred Assets shall be used in a manner consistent with the use made by Time Warner Cable and its Affiliates of such Transferred Assets prior to Closing; (c) Comcast Subsidiary shall exercise reasonable efforts to remove all Time Warner Cable Marks from the Transferred Assets as soon as reasonably practicable following Closing; and (d) the use of the Time Warner Cable Marks during such period shall inure to the benefit of Time Warner Cable and, to the extent any goodwill in the Time Warner Cable Marks is deemed to accrue during such period, to Holdco or its Affiliates, then Comcast Subsidiary agrees to cause Holdco to assign all such goodwill to Time Warner Cable; provided, that Holdco shall indemnify

and hold harmless Time Warner Cable for any Liabilities arising from or otherwise relating to Holdco's use of the Time Warner Cable Marks. Upon expiration of such 150-day period, Comcast Subsidiary shall cause Holdco to remove all Time Warner Cable Marks from the Transferred Assets and destroy all unused letterhead, checks, business-related forms, preprinted form contracts, product literature, sales literature, labels, packaging material and any other materials displaying the Time Warner Cable Marks within ten Business Days and shall provide Time Warner Cable with a written certification that it destroyed any and all such materials. Notwithstanding the foregoing, Comcast Subsidiary and Holdco shall not be required to remove or discontinue using any such proprietary rights that are affixed to converters or other items located in customer homes or properties such that prompt removal is impracticable for Comcast Subsidiary and Holdco; provided, that Comcast Subsidiary and Holdco shall remove or discontinue such proprietary rights promptly upon the return of such converters or other items to their possession.

Section 3.3 Transfer Laws. The parties hereto each waive compliance with Legal Requirements relating to bulk transfers applicable to the transactions contemplated hereby.

Section 3.4 Transfer Taxes and Fees. All sales, use, transfer and similar taxes or assessments, including transfer fees and similar assessments for Transferred System Franchises, Transferred System Licenses and Transferred System Contracts, arising from or payable by reason of or otherwise related to the Holdco Transaction, the GP Redemption, the Subsidiary Transfers and the TWC Redemption, shall be paid one-half by Holdco and one-half by Time Warner Cable (it being understood and agreed that if any such payable is satisfied by a party or any Affiliate thereof, then promptly after the later of
(x) the Closing and (y) the demand of the paying party, the other party shall reimburse the paying party for one-half of any such amounts paid by the paying party).

ARTICLE 4
COMCAST TRUST'S REPRESENTATIONS AND WARRANTIES

Comcast Trust represents and warrants to Time Warner Cable, as of the date of this Agreement and as of Closing, as follows:

Section 4.1 Organization and Qualification of Comcast Trust. Comcast Trust is a statutory trust duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite trust power and authority to own the Redemption Securities.

Section 4.2 Authority. Subject to the FCC Trust Requirements, Comcast Trust has all requisite power and authority under the terms of its declaration of trust to execute, deliver and perform this Agreement and the Transaction Documents to be executed and delivered by Comcast Trust and to consummate the transactions contemplated hereby and thereby. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby by Comcast

Trust have been, and in the case of the Transaction Documents to be executed and delivered by Comcast Trust and the consummation of the transactions contemplated thereby, shall at Closing have been duly and validly authorized, subject to the FCC Trust Requirements, by all necessary trust action on the part of Comcast Trust. This Agreement has been duly and validly executed and delivered by Comcast Trust and is, and in the case of the Transaction Documents to be executed and delivered by Comcast Trust, when so executed and delivered shall be, subject to the FCC Trust Requirements, the valid and binding obligation of Comcast Trust, enforceable against Comcast Trust in accordance with their terms, except as the same may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws now or hereafter in effect relating to the enforcement of creditors' rights generally or by principles governing the availability of equitable remedies.

Section 4.3 No Conflict; Required Consents. Subject to compliance with the HSR Act, the FCC Trust Requirements, the Securities Act of 1933 (the "Securities Act") and the Securities Exchange Act of 1934 (the "Exchange Act") and except for Authorizations to be obtained by Time Warner Cable or its Affiliates, the execution, delivery and performance by Comcast Trust of this Agreement and the Transaction Documents to be executed and delivered by Comcast Trust do not and shall not: (a) conflict with or violate any provision of the certificate of trust or declaration of trust of Comcast Trust; (b) to the knowledge of Comcast Trust's operating trustee violate any provision of any material Legal Requirement; (c) without regard to requirements of notice, lapse of time, elections of other Persons or any combination thereof, conflict with, violate, result in a breach of, constitute a default under or give rise to any third party's right(s) of first refusal or similar right under any Contract to which Comcast Trust is a party relating to the Redemption Securities; or (d) to the knowledge of Comcast Trust's operating trustee require any material consent, approval or authorization of, or filing of any certificate, notice, application, report or other document with, any Governmental Authority or other Person.

Section 4.4 Litigation. (i) There is no Litigation pending or, to Comcast Trust's knowledge, threatened, by or before any Governmental Authority or private arbitration tribunal, against or involving the assets of Comcast Trust or any of its Controlled Affiliates; and (ii) other than the FCC Trust Requirements, there is no Judgment requiring Comcast Trust or any of its Controlled Affiliates to take any action of any kind, in either case, which could adversely affect in any material respect the ability of Comcast Trust or any of its Controlled Affiliates to perform their respective obligations under this Agreement or the other Transaction Documents.

Section 4.5 Ownership of Redemption Securities. Comcast Trust owns of record and, subject to the terms of its declaration of trust, beneficially, and has good and valid title to, free and clear of any Liens (other than restrictions imposed by federal and state securities Laws, pursuant to the declaration of trust of Comcast Trust, under agreements with Time Warner Cable or its Affiliates or by the FCC Trust Requirements) and Comcast Trust shall own immediately prior to Closing of record and, subject to the terms of its declaration of trust, beneficially, and will have good and valid title to, free and clear of any Liens (other than restrictions imposed by federal and state

securities Laws, pursuant to the declaration of trust of Comcast Trust, under agreements with Time Warner Cable or its Affiliates or by the FCC Trust Requirements) all of the Redemption Securities. In the TWC Redemption, Comcast Trust will transfer to Time Warner Cable valid title to the Redemption Securities free and clear of any Liens, other than restrictions imposed by federal and state securities laws.

Section 4.6 Brokers. There is no investment banker, broker, finder or other intermediary who has been retained by or is authorized to act on behalf of Comcast Trust who might be entitled to any fee or commission from Time Warner Cable or its Affiliates in connection with the transactions contemplated by this Agreement.

ARTICLE 5
COMCAST SUBSIDIARY'S REPRESENTATIONS AND WARRANTIES

Comcast Subsidiary represents and warrants to Time Warner Cable, as of the date of this Agreement and as of Closing, as follows:

Section 5.1 Organization and Qualification of Comcast Subsidiary. Comcast Subsidiary is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware.

Section 5.2 Authority. Comcast Subsidiary has all requisite corporate power and authority to execute, deliver and perform this Agreement and the Transaction Documents to be executed and delivered by Comcast Subsidiary and to consummate the transactions contemplated hereby and thereby. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby by Comcast Subsidiary have been, and in the case of the Transaction Documents to be executed and delivered by Comcast Subsidiary and the consummation of the transactions contemplated thereby, shall at Closing have been duly and validly authorized by all necessary corporate action on the part of Comcast Subsidiary. This Agreement has been duly and validly executed and delivered by Comcast Subsidiary and is, and in the case of the Transaction Documents to be executed and delivered by Comcast Subsidiary, when so executed and delivered shall be, the valid and binding obligation of Comcast Subsidiary, enforceable against Comcast Subsidiary in accordance with their terms, except as the same may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws now or hereafter in effect relating to the enforcement of creditors' rights generally or by principles governing the availability of equitable remedies.

Section 5.3 No Conflict; Required Consents. Subject to compliance with the HSR Act, the FCC Trust Requirements, the Securities Act and the Exchange Act and except for Authorizations to be obtained by Time Warner Cable or its Affiliates, the execution, delivery and performance by Comcast Subsidiary and Comcast Trust of this Agreement and the Transaction Documents to be executed and delivered by Comcast Subsidiary and/or Comcast Trust do not and shall not: (a) conflict with or violate any provision of the certificate of incorporation or bylaws of Comcast Subsidiary or the certificate of trust or declaration of trust of Comcast Trust; (b) violate any

provision of any material Legal Requirement; or (c) require any material consent, approval or authorization of, or filing of any certificate, notice, application, report or other document with, any Governmental Authority or other Person.

Section 5.4 Litigation. (i) There is no Litigation pending or, to Comcast Subsidiary's knowledge, threatened, by or before any Governmental Authority or private arbitration tribunal, against or involving the assets of Comcast Subsidiary or any of its Affiliates; and (ii) other than the FCC Trust Requirements, there is no Judgment requiring Comcast Subsidiary or any of its Affiliates to take any action of any kind, in either case, which could adversely affect in any material respect the ability of Comcast Subsidiary or any of its Affiliates to perform their respective obligations under this Agreement or any of the other Transaction Documents.

Section 5.5 Brokers. There is no investment banker, broker, finder or other intermediary who has been retained by or is authorized to act on behalf of Comcast and/or Comcast Subsidiary who might be entitled to any fee or commission from Time Warner Cable or its Affiliates in connection with the transactions contemplated by this Agreement.

Section 5.6 Comcast Balance Sheet. Comcast has provided to Time Warner Cable an internal unaudited consolidated balance sheet of Comcast and its Subsidiaries as of June 30, 2004 (the "Comcast Balance Sheet"). The Comcast Balance Sheet was prepared in accordance with GAAP (except for the absence of required footnotes) and fairly presents in all material respects the consolidated financial condition of Comcast and its Subsidiaries as of the date indicated therein, except that (i) the current and deferred income tax accounts were derived from the general ledgers of the Comcast unaudited consolidated balance sheet but do not reflect tax consolidation and allocation adjustments necessary to present Comcast's balance sheet on a stand alone basis and (ii) "due to related parties, net" is included as a component of stockholder's equity.

Section 5.7 Tolling. The FCC Trust Requirements do not prohibit, and no consent of any Governmental Authority is required with respect to, the agreements of Comcast Trust and of Comcast Parent pursuant to Section 2.3 (including the tolling of registration rights pursuant thereto).

ARTICLE 6
TIME WARNER CABLE'S REPRESENTATIONS AND WARRANTIES

Time Warner Cable represents and warrants to Comcast Trust and Comcast Subsidiary, as of the date of this Agreement (or, with respect to the Designated Systems, the Amendment Date) (subject, in each case, to Section 7.20 with respect to Sections 6.3(c), 6.3(f) and 6.5, to the extent such Sections relate to the SSBC Systems) and as of Closing, as follows:

Section 6.1 Organization and Qualification of Time Warner Cable. Time Warner Cable is a corporation duly organized, validly existing and in good

standing under the laws of the State of Delaware. Time Warner Cable and each Affiliate of Time Warner Cable that holds Transferred Assets or is otherwise a participant in any of the transactions referred to in Section 2.1(b)(i) (each, a "Transferring Person") has all requisite corporate or other entity power and authority to own and lease the Transferred Assets and to conduct the Transferred Business as currently conducted.

Section 6.2 Authority. Each of Time Warner Cable and Holdco has all requisite corporate power and authority to execute, deliver and perform this Agreement and the Transaction Documents to be executed and delivered by it and to consummate the transactions contemplated hereby and thereby. Each Transferring Person has all requisite corporate or other power and authority to execute, deliver and perform the Transaction Documents to be executed and delivered by such Transferring Person and to consummate the transactions contemplated thereby. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby by Time Warner Cable and Holdco have been, and in the case of the Transaction Documents to be executed and delivered by Time Warner Cable or any TWC Participant and the consummation of the transactions contemplated thereby, shall at Closing have been duly and validly authorized by all necessary corporate or other entity action on the part of Time Warner Cable and each such TWC Participant. This Agreement has been duly and validly executed and delivered by Time Warner Cable and Holdco and is, and in the case of the Transaction Documents to be executed and delivered by Time Warner Cable or any TWC Participant, when so executed and delivered shall be, the valid and binding obligation of Time Warner Cable or such TWC Participant, enforceable against Time Warner Cable or such TWC Participant, as applicable, in accordance with their terms, except as the same may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws now or hereafter in effect relating to the enforcement of creditors' rights generally or by principles governing the availability of equitable remedies.

Section 6.3 No Conflict; Required Consents. Except as described on Schedules 6.3 and 6.19, and subject to compliance with the HSR Act, the Securities Act and the Exchange Act and except for Authorizations required from, by or with the relevant Franchising Authorities in respect of the Franchises for the Transferred Systems, Authorizations required from, by or with the FCC in connection with a change of control of the holder and/or assignment of the Transferred System Licenses, Authorizations from state public utility commissions having jurisdiction over the assets of Transferred Systems, and Authorizations to be obtained by Comcast Subsidiary or its Affiliates, the execution, delivery and performance by Time Warner Cable and Holdco of this Agreement and the Transaction Documents to be executed and delivered by Time Warner Cable and Holdco, and the execution, delivery and performance by each Transferring Person of the Transaction Documents to be executed and delivered by such Transferring Person, do not and shall not: (a) conflict with or violate any provision of the certificate of incorporation or by-laws or other organizational or governing documents of Time Warner Cable, Holdco or any Transferring Person; (b) violate any provision of any material Legal Requirement; (c) without regard to requirements of notice, lapse of time, elections of other Persons or any combination thereof, conflict with, violate, result in a breach of, constitute a default under or give rise to any third party's right (s) of first

refusal or similar right or right of cancellation or termination, or accelerate or permit the acceleration of the performance required by or adversely effect the rights or obligations of Time Warner Cable, Holdco or any Transferring Person under any Transferred Systems Contract, Transferred Systems Franchise or Transferred Systems License; (d) result in the creation or imposition of any Lien against or upon any of the Transferred Assets other than a Permitted Lien;
(e) require any material consent, approval or authorization of, or filing of any certificate, notice, application, report or other document with, any Governmental Authority; or (f) require any consent, approval or authorization of, or filing of any certificate, notice, application, report or other document with, any Person (other than any Governmental Authority), in the case of clauses
(c), (d) and (f) with only such exceptions as would not individually or in the aggregate reasonably be expected to have a Material Adverse Effect or materially delay or prevent the consummation of the transactions contemplated hereby.

Section 6.4 Sufficiency of Assets; Title.

(a) Except for items included in the Excluded Assets or as described on Schedule 6.4(a), (i) the Transferred Assets are all of the assets of Time Warner Cable or its Affiliates owned, used or held for use primarily in connection with the operation of the Transferred Systems, and (ii) the right, title and interest in the Transferred Assets conveyed to Holdco pursuant to the Holdco Transaction shall be sufficient to permit Holdco to operate the Transferred Systems substantially as they are being operated by Time Warner Cable and its Affiliates immediately prior to the Holdco Transaction and in compliance with all material Legal Requirements and, except where the failure to do so would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, in compliance with all contractual requirements that comprise part of the Assumed Liabilities. At the Closing, Holdco will have good and marketable title to (or in the case of assets that are leased, valid leasehold interests in) the tangible Transferred Assets free and clear of any Liens, other than Permitted Liens (disregarding clause (d) of the definition thereof), except where the failure to do so would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Notwithstanding the foregoing, the representation contained in the immediately preceding sentence shall not apply with respect to any Owned Property or Leased Property with respect to which Time Warner Cable has delivered a Title Policy, or a Title Commitment to deliver a Title Policy, as provided in Section 8.1.

(b) Except as described on Schedule 6.4(b), the Tangible Personal Property and improvements on Owned Property and real property subject to Real Property Interests are in all material respects adequate for their present uses.

Section 6.5 Transferred System Franchises, Transferred System Licenses, Transferred Systems Contracts, Owned Property and Real Property Interests.

(a) Except as described on Schedules 2.1(c)(ii), 2.1(c)(iii), 2.1(c)(iv), 2.1(c)(v) or Schedule 6.5(a) and except for the Excluded Assets, neither Time Warner Cable nor any of its Affiliates is bound or affected by any of the following that relate wholly or primarily to the Transferred Assets or the Transferred Systems: (i) leases

of real or material personal property; (ii) Franchises, and similar authorizations for the operation of Transferred Systems, or Contracts of substantially equivalent effect; (iii) other licenses, authorizations, consents or permits of the FCC or, to the extent material, any other Governmental Authority; (iv) all Authorizations of Governmental Authorities to provide telephony services held, directly or indirectly, by Time Warner Cable or its Affiliates and used in connection with the operation of any Transferred Systems;
(v) material crossing Contracts, easements, rights of way or access Contracts;
(vi) pole line or joint line Contracts or underground conduit Contracts; (vii) bulk service, commercial service or multiple-dwelling unit access Contracts which individually provide for payments by or to Time Warner Cable or its Affiliates in any twelve month period exceeding $50,000; (viii) system-specific programming Contracts, system-specific signal supply Contracts and Local Retransmission Consent Agreements; (ix) any Contract with the FCC or any other Governmental Authority relating to the operation or construction of the Transferred Systems that are not fully reflected in the Transferred Systems Franchises, or any Contracts with community groups or similar third parties restricting or limiting the types of programming that may be shown on any of the Transferred Systems; (x) any partnership, joint venture or other similar Contract or arrangement; (xi) any Contract with Time Warner Cable or any of its Affiliates; (xii) any Contract that limits the freedom of the Transferred Systems to compete in any line of business or with any Person or in any area or which would so limit the freedom of Holdco, Comcast Subsidiary, Comcast Trust or any of their Affiliates after the Closing Date; (xiii) any Contract relating to the use by third parties of Transferred Assets to provide, or the provision by the Transferred Systems of, telephone, Internet or data services other than Contracts with subscribers of any such services; (xiv) any advertising representation or interconnect Contract; (xv) any Contract with any employee employed primarily in connection with the Transferred Systems; (xvi) any Contract granting any Person the right to use any portion of the cable television system plant included in the Transferred Assets; (xvii) any Contract that is not the subject of any other clause of this Section 6.5(a) that shall remain effective for more than one year after Closing (except those Contracts that may be terminated upon no more than 30 days' notice without penalty and subscription agreements with residential subscribers to provide cable service); or (xviii) any Contract other than those described in any other clause of this
Section 6.5(a) which individually provides for payments by or to Time Warner Cable in any twelve month period exceeding $500,000 or is otherwise material to the Transferred Systems.

(b) Time Warner Cable has prior to the date hereof (or, with respect to the Designated Systems, the Amendment Date) provided or otherwise made available (or, with respect to the SSBC Systems, will as part of delivery of the Second Stage Documents provide or otherwise make available) to Comcast Trust and Comcast Subsidiary true and complete copies of each of the Transferred Systems Franchises, Transferred Systems Licenses and Transferred Systems Contracts described on any of Schedules 2.1(c)(ii) (to the extent in the possession of Time Warner Cable or its Affiliates), 2.1(c)(iii), 2.1(c)(iv), 2.1(c)(v) and Schedule 6.5(a) (excluding Local Retransmission Consent Agreements and system-specific programming contracts), together with true and complete copies of (i) any notices alleging continuing non compliance with the requirements of any Transferred Systems Franchise, (ii) in each case any amendments to any of the items on any such Schedule (in the case of the items on

Schedule 2.1(c)(ii), to the extent in the possession of Time Warner Cable or its Affiliates), (iii) in the case of oral Real Property Interests listed on Schedule 2.1(c)(ii) or oral Transferred Systems Contracts listed on Schedule 2.1(c)(v), true and complete written summaries thereof and (iv) each document in the possession of Time Warner Cable or its Affiliates evidencing or insuring Time Warner Cable's or its Affiliates' ownership of the Owned Property. Except as described in Schedule 6.5(b) and except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect: (i) Time Warner Cable and each of its Affiliates are in compliance with each of the Transferred Systems Franchises, Transferred Systems Licenses and Transferred Systems Contracts; (ii) Time Warner Cable and its Affiliates have fulfilled when due, or have taken all action necessary to enable them to fulfill when due, all of their obligations under each of the Transferred Systems Franchises, Transferred Systems Licenses and Transferred Systems Contracts; (iii) there has not occurred any default (without regard to lapse of time or to the giving of notice or both) by Time Warner Cable or any of its Affiliates and, to the knowledge of Time Warner Cable, there has not occurred any default (without regard to lapse of time or the giving of notice, or both) by any other Person, under any of the Transferred Systems Franchises, Transferred Systems Licenses and Transferred Systems Contracts; and (iv) the Transferred Systems Franchises, Transferred Systems Licenses and Transferred Systems Contracts are valid and binding agreements and are in full force and effect.

(c) Schedule 2.1(c)(iii) lists the date on which each Transferred Systems Franchise shall expire.

(d) Except as described on Schedules 2.1(c)(iii), 2.1(c)(iv) or Schedule 6.5(d), there are no applications relating to any Transferred Systems Franchise or Transferred Systems Licenses pending before any Governmental Authority that are material to any of such Transferred Systems. Except as described on Schedule 6.5(d), neither Time Warner Cable nor any of its Affiliates has received, nor do any of them have notice that they shall receive, from any Governmental Authority a preliminary assessment that a Transferred Systems Franchise should not be renewed as provided in Section 626(c)(1) of the Communications Act. Except as described on Schedule 6.5(d), neither Time Warner Cable, nor any of its Affiliates nor any Governmental Authority has commenced or requested the commencement of an administrative proceeding concerning the renewal of a Transferred Systems Franchise as provided in Section 626(c)(1) of the Communications Act. Except as described on Schedule 6.5 (d), Time Warner Cable and its Affiliates have timely filed notices of renewal in accordance with the Communications Act with all Governmental Authorities with respect to each Transferred Systems Franchise expiring within 30 months of the date of this Agreement. Except as described on Schedule 6.5(d), such notices of renewal have been filed pursuant to the formal renewal procedures established by Section (a) of the Communications Act. To Time Warner Cable's knowledge, there exist no facts or circumstances that make it likely that any Transferred Systems Franchise shall not be renewed or extended on commercially reasonable terms. Except as described on Schedule 6.5(d), as of the date hereof (or, with respect to the Designated Systems, the Amendment Date), no Governmental Authority has commenced, or given notice that it intends to commence, a proceeding to revoke or suspend a Transferred Systems Franchise.

Section 6.6 Employee Benefits. A true and complete list of the Time Warner Cable Benefit Plans is set forth in Schedule 6.6. Except as set forth on Schedule 6.6, none of Time Warner Cable, any of its ERISA Affiliates, any Time Warner Cable Benefit Plan other than a multiemployer plan (as defined in Section 3(37) of ERISA), or to the knowledge of Time Warner Cable, any Time Warner Cable Benefit Plan that is a multiemployer plan (as defined in Section 3(37) of ERISA) is in material violation of any provision of ERISA with respect to a Time Warner Cable Benefit Plan. No material "reportable event" (as defined in Sections 4043(c) of ERISA), "accumulated funding deficiency" (as defined in Section 302 of ERISA) or "withdrawal liability" (as determined under Section 4201 et seq. of ERISA) has occurred or exists and is continuing with respect to any Time Warner Cable Benefit Plan other than a multiemployer plan (as defined in Section 3(37) of ERISA) or, to the knowledge of Time Warner Cable, any Time Warner Cable Benefit Plan that is a multiemployer plan (as defined in Section 3(37) of ERISA). After the Closing, none of Holdco, Comcast Subsidiary or any of their respective ERISA Affiliates shall be required, under ERISA, the Code or any collective bargaining agreement, to establish, maintain or continue any Time Warner Cable Benefit Plan currently maintained by Time Warner Cable or any of its ERISA Affiliates. Except as set forth in Schedule 6.6, since the Balance Sheet Date, there has been no change in the Time Warner Cable Benefit Plans or level of compensation provided the Transferred System Employees that would materially increase the cost of operating the Transferred Systems.

Section 6.7 Litigation. Except as set forth in Schedule 6.7, (i) there is no Litigation pending or, to Time Warner Cable's knowledge, threatened, by or before any Governmental Authority or private arbitration tribunal, against Time Warner Cable or any of its Affiliates; and (ii) there is no Judgment requiring Time Warner Cable or any of its Affiliates to take any action of any kind with respect to the Transferred Assets or the operation of the Transferred Systems, or to which Time Warner Cable or any of its Affiliates (with respect to the Transferred Systems), the Transferred Systems or the Transferred Assets are subject or by which they are bound or affected, in the case of clauses (i) and (ii), which could, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect or materially delay or prevent the consummation of the transactions contemplated by this Agreement and the other Transaction Documents. For the avoidance of doubt, this Section 6.7 shall have no application with respect to Taxes of Time Warner Cable or any of its Affiliates.

Section 6.8 Transferred Systems Information. Schedule 6.8 sets forth a true and complete description in all material respects of the following information.

(a) as of the Balance Sheet Date, the approximate number of miles of plant, aerial and underground and the technical capacity of such plant expressed in MHz, included in the Transferred Assets;

(b) as of the date set forth on such Schedule (which shall be no earlier than the Balance Sheet Date), the number of Individual Subscribers, Digital Subscribers, Telephony Subscribers and High Speed Data Subscribers served by the Transferred Systems;

(c) as of the date set forth on such Schedule (which shall be no earlier than the Balance Sheet Date), the approximate number of homes passed by each of the Transferred Systems as reflected in Time Warner Cable's system records for such date;

(d) as of the date hereof (or, with respect to the Designated Systems, the Amendment Date), a description of basic and optional or tier services available from each of the Transferred Systems and the rates charged by Time Warner Cable for each;

(e) as of the hereof (or, with respect to the Designated Systems, the Amendment Date), the stations and signals carried by each of the Transferred Systems and the channel position of each such signal and station; and

(f) [Intentionally Omitted]

(g) the municipalities served by each of the Transferred Systems and the community identification numbers of such municipalities.

Section 6.9 Compliance with Legal Requirements. Except as set forth on Schedule 6.9, the Transferred Assets include all material Authorizations of, by or with any Governmental Authority that are necessary for the lawful conduct of the Transferred Systems as currently conducted and each of the material Authorizations is in full force and effect in all material respects. Except as set forth on Schedule 6.9, the Transferred Systems are, and have been, operated in compliance in all material respects with all material Legal Requirements and Authorizations, and, to the knowledge of Time Warner Cable, none of the Transferred Systems are under investigation with respect to or have been threatened to be charged with or given written notice of any material violation of any material Legal Requirement or Authorization.

Section 6.10 Real Property. Schedule 2.1(c)(ii) sets forth all leases included in the Real Property Interests (the "Leases", and each such lease, a "Lease") and all ownership interests in real property included in the Owned Property and all other material Real Property Interests. The Owned Property and Real Property Interests include all leases, fee interests, material easements, material access agreements and other material real property interests necessary to operate the Transferred Systems as currently conducted.

Section 6.11 Financial Statements; No Adverse Change; Telephony Budget.

(a) Time Warner Cable has provided to Comcast Trust and Comcast Subsidiary internal unaudited financial statements for the Transferred Systems consisting of balance sheets and statements of operations (i) with respect to the Original Systems, as of and for the 12 months ended December 31, 2003 and as of and for the 6 months ended June 30, 2004 and (ii) with respect to the Designated Systems, as of and for the 12 months ended December 31, 2004 (collectively, the "Transferred Systems Financial Statements"). The Transferred Systems Financial Statements were prepared in

accordance with GAAP (except for the absence of required footnotes) and fairly present in all material respects the financial condition and results of operations of the Transferred Systems as of the dates and for the periods indicated therein; provided that the Transferred System Financial Statements do not reflect the following items, which may have been recorded within the financial results of the Transferred Systems had the Transferred Systems been stand-alone entities during the periods presented: (i) an allocation of a portion of goodwill and identifiable intangible assets, and related amortization expense, arising from recent purchase business combinations, which is recorded at the Time Warner Cable or TWE corporate level; (ii) an allocation of debt and related interest expense recorded at the Time Warner Cable or TWE corporate level; (iii) an allocation of deferred Income Taxes, Income Taxes payable and Income Tax expense recorded at the Time Warner Cable corporate level; (iv) a management fee for services provided by Time Warner Cable corporate entities has not been recorded on the books of the non-TWE systems; (v) certain balance sheet reclasses within current assets and liabilities (e.g. reclassifying debit balances in liability accounts to assets and vice versa); (vi) an allocation of certain advertising revenue that was recorded at the Time Warner Cable or TWE corporate level; (vii) an allocation of music performance royalties paid or payable to BMI, ASCAP and SESAC and programming vendor marketing support receipts or receivables that were recorded at the Time Warner Cable or TWE corporate level; (viii) an allocation of variances between actual pension expense and budgeted pension expense (e.g. the financial results of the Transferred Systems reflect budgeted pension expense);(ix) an allocation of other Time Warner Cable corporate, TWE corporate and divisional overhead that is not specifically identified to a particular cable system; (x) an allocation of certain assets, including routers and other equipment located at regional data centers, related to Time Warner Cable's high-speed data business; (xi) certain expense accruals that are paid by Time Warner Cable or TWE corporate on behalf of the Transferred Systems including the following: (1) programming accruals of approximately one month's service would be reflected as a liability for the Transferred Systems and liabilities in excess of one month are transferred to Time Warner Cable or TWE corporate to be paid; (2) group insurance liabilities are recorded on the balance sheet at Time Warner Cable or TWE corporate; (3) casualty insurance, including workers compensation liabilities are recorded on the balance sheet at Time Warner Cable or TWE corporate; (4) certain property tax and sales and use tax liabilities are recorded on the balance sheet at Time Warner Cable or TWE corporate; and (6) other miscellaneous liabilities related to company-wide costs are recorded on the balance sheet at Time Warner Cable or TWE corporate, which are recorded net in the intercompany payables/receivables line items on the Transferred System trial balances and (xii) third party and payroll payments made by Time Warner Cable and TWE corporate on behalf of the Transferred Systems after the monthly cut-off are not pushed down to the Transferred Systems until the following month (e.g. there is a lag between the time of payment of the liability by TWC or TWE and relieving the third-party liability at the Transferred Systems).

(b) Except as set forth in Schedule 6.11(b), (i) since Balance Sheet Date, there have been no events, circumstances or conditions that, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect and (ii) since the Balance Sheet Date, the Transferred Systems and the Transferred Assets have

been operated in all material respects only in the ordinary course of business consistent with past practices.

Section 6.12 Employees.

(a) Except as set forth on Schedule 6.12(a), there are no collective bargaining agreements applicable to any Transferred System Employees, and neither Time Warner Cable nor any Affiliate of Time Warner Cable, nor Holdco as of the Closing, has any duty to bargain with any labor organization with respect to any such persons. There are not pending any material unfair labor practice charges against Time Warner Cable or any Affiliate of Time Warner Cable, or any request or demand for recognition, or any petitions filed by a labor organization for representative status, with respect to any Transferred System Employees.

(b) Except as set forth on Schedule 6.12(b), Time Warner Cable and its Affiliates have complied, and Holdco will be in compliance as of the Closing, in all material respects with all applicable Legal Requirements relating to the employment of labor, including WARN, ERISA, continuation coverage requirements with respect to group health plans and those relating to wages, hours, collective bargaining, unemployment insurance, worker's compensation, equal employment opportunity, age, sex, race and disability discrimination, immigration control and the payment and withholding of Taxes except for any non-compliance which would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Except as set forth on Schedule 6.12(b), neither Time Warner Cable nor any of its Affiliates is, and Holdco will not be as of the Closing, a party to any material labor or employment dispute involving any of its employees who render services in connection with the Transferred Systems.

(c) Except as described on Schedule 6.12(c), neither Time Warner Cable nor any of its Affiliates has any employment agreements, either written or oral, with any Transferred System Employees and none of the employment agreements listed on Schedule 6.12(c) require Comcast Subsidiary, Holdco or any of their Affiliates to employ any person after Closing.

Section 6.13 Transactions with Affiliates. Except for this Agreement and Transaction Documents to which it is a party, or as set forth on Schedule 6.13, immediately after the Closing, Holdco shall not be bound by any Contract or any other arrangement of any kind whatsoever with, or have any Liability to, Time Warner Cable or any Affiliate thereof.

Section 6.14 Undisclosed Material Liabilities. The Assumed Liabilities will include no Liabilities, and there is no existing condition, situation or set of circumstances which would reasonably be expected to result in such a Liability, other than:

(a) the Liabilities disclosed on Schedule 6.14;

(b) the Liabilities disclosed in the Transferred Systems Financial Statements;

(c) the Liabilities arising in the ordinary course of business since the Balance Sheet Date in amounts substantially consistent with past practices (subject to customary cost increases); and

(d) other Liabilities which, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect.

Section 6.15 Holdco; TWE Holdco I.

(a) Holdco is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all corporate powers required to carry on its business as now conducted. Holdco is (or at the Closing will be) duly registered as a foreign corporation in all jurisdictions in which the ownership or leasing of the Transferred Assets or the nature of its activities in connection with the Transferred Systems makes such qualification necessary, with only such exceptions as would not, individually or in the aggregate, result in a Material Adverse Effect. Time Warner Cable owns all of the issued and outstanding capital stock of Holdco, free and clear of all Liens, other than restrictions imposed by applicable federal or state securities Laws. All of such capital stock is duly authorized, validly issued, fully paid and non-assessable, and was issued in compliance in all material respects with all applicable Legal Requirements. There shall be no outstanding options, warrants, rights, commitments, conversion rights, preemptive rights or agreements of any kind to which Time Warner Cable or any of its Affiliates or Holdco is a party or by which any of them is bound which would obligate any of them to issue, deliver, purchase or sell any additional shares of capital stock, units, membership, or other equity or profit interests of any kind in Holdco or any security convertible into or exercisable or exchangeable for any of the foregoing. In the TWC Redemption, Time Warner Cable will transfer to Comcast Trust or Comcast Subsidiary, as the case may be, valid title to the Holdco Shares free and clear of any Liens, other than restrictions imposed by federal and state securities laws.

(b) Prior to the Holdco Transaction, Holdco will have conducted no business or operations and will have no indebtedness and no Liabilities (excluding (i) any Liabilities for Taxes with respect to Holdco's corporate existence, (ii) any Liabilities for Taxes of any member of an Affiliated Group of which Holdco is or was a member on or prior to the Closing Date by reason of Liability under Treasury Regulation Section 1.1502 6, Treasury Regulation
Section 1.1502-78 or similar provisions of state, local, provincial or foreign law and (iii) any Liabilities with respect to any employee benefit arrangements ("ERISA Group Liabilities") arising either under the Code or ERISA solely as a result of Holdco having been, at any time on or prior to Closing, a member of a group described in Section 4001(b) of ERISA or Section 414(b), (c), (m) or (o) of the Code (collectively, the "Holdco Indemnified Liabilities"), other than under this Agreement and any Transaction Document to which Holdco is a party.

(c) Prior to the Holdco Transaction, Holdco will not have been party to any Contracts other than this Agreement and any Transaction Document to which Holdco is a party. Holdco has no Subsidiaries.

(d) No ERISA Group Liability has been incurred by Holdco and no ERISA Group Liability is reasonably expected to be asserted against Holdco for periods prior to the Closing.

(e) Prior to the Holdco Transaction, Holdco will not have, and will never have had, any employees, other than unpaid corporate officers with no entitlement to benefits or other compensation that was, is or will be a liability of Holdco.

(f) At the time of the TWC Redemption, Holdco will own the Transferred Assets, subject to the Assumed Liabilities and will have no other assets or Liabilities, except Holdco Indemnified Liabilities and Liabilities under this Agreement and any Transaction Document to which Holdco is a party.

(g) Either (i) TWE Holdco I will be a disregarded entity for federal income tax purposes as of Closing; or (ii) the contribution of assets to TWE Holdco I permitted in the last sentence of Step 3 of the Interim Steps (as defined in the TWC Redemption Agreement), if effectuated, will not impair or materially delay the Holdco Transaction, the TWC Redemption, the GP Redemption or the Subsidiary Transfer, or otherwise adversely affect the Transferred Systems, the Transferred Business, any Transferred Assets, Comcast or any of its Affiliates. TWE Holdings shall be a Transferring Person.

Section 6.16 Insurance. Schedule 6.16 contains a list of all policies of property, fire, casualty, liability, life, workers' compensation, libel and slander, and other forms of insurance of any kind that relate to the Transferred Assets, the Transferred Systems or any of the employees, officers or directors of the Transferred Systems and are maintained by or on behalf of Time Warner Cable or its Affiliates, in each case which are in force as of the date hereof (or, with respect to the Designated Systems, the Amendment Date). All such policies are in full force and effect, all premiums due thereon have been paid by or on behalf of Time Warner Cable, and Time Warner Cable is otherwise in compliance in all material respects with the terms and provisions of such policies (after giving effect to applicable grace or cure periods). After the Closing, the terms of such policies will continue to provide coverage with respect to acts, omissions and events occurring prior to the Closing in accordance with their terms as if the Closing had not occurred. Time Warner Cable has no knowledge of any threatened termination of, material premium increase (other than with respect to customary annual premium increases) with respect to, or material alteration of coverage under, any of such policies.

Section 6.17 Intellectual Property. Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect or as set forth on Schedule 6.17, the Transferred Business, the Transferred Assets and the Transferred Systems do not infringe and have not infringed upon the intellectual

property rights of any Person, or give rise to any rightful claim of any Person for copyright, trademark, service mark, patent, license or other intellectual property right infringement.

Section 6.18 Brokers. There is no investment banker, broker, finder or other intermediary who has been retained by or is authorized to act on behalf of Time Warner Cable or any of its Affiliates who might be entitled to any fee or commission from Comcast Subsidiary or any of its Affiliates in connection with the transactions contemplated by this Agreement.

Section 6.19 Transferred Systems Options. Except as disclosed on Schedule 6.19, none of the Transferred Systems or any material Transferred Assets are subject to any purchase option, right of first refusal or similar arrangement which would be triggered by the sale, transfer or other disposition of such Transferred Systems or Transferred Assets ("Transferred Systems Option").

Section 6.20 Transferred Systems Proprietary Rights. Except as described on Schedule 6.20, there is no material trademark, trade name, service mark, service name or logo, or any application therefor, owned, licensed, used or held for use by Time Warner Cable or any of its Affiliates primarily in connection with the operation of the Transferred Systems.

Section 6.21 Promotional Campaigns. After Closing, Holdco will not be obligated to continue to make promotional offers under any promotional or marketing campaigns or programs initiated or maintained by Time Warner Cable or its Affiliates with respect to the Transferred Systems; provided that, for the avoidance of doubt, individual Subscribers who subscribed for services prior to the Closing and took advantage of any such campaign or promotional offers may be entitled to continue to receive the benefits offered under such campaign or promotion in accordance with its terms after Closing. After Closing, Holdco will not be obligated to pay for any advertisements run or to be run after the Closing under promotional or marketing campaigns or programs initiated or maintained by Time Warner Cable or its Affiliates with respect to the Transferred Systems, other than campaigns initiated with the consent of Comcast Subsidiary.

Section 6.22 Environmental.

(a) Except as described on Schedule 6.22(a), to the knowledge of Time Warner Cable, (i) neither Time Warner Cable nor any of its Affiliates has received any notice, demand, request for information, citation, summons or order relating to any material evaluation or investigation, and (ii) neither Time Warner Cable nor any of its Affiliates is the subject of any pending or threatened material investigation, action, claim, suit, review, complaint, penalty or proceeding of any Governmental Authority or other Person, in each case with respect to the Transferred Assets, the Transferred Systems or Holdco which relate to or arise out of any Environmental Law.

(b) Except as described on Schedule 6.22(b), to the knowledge of Time Warner Cable, no Hazardous Substance has been discharged, disposed of, dumped, injected, pumped, deposited, spilled, leaked, emitted, or released at, on or under any Transferred Asset or in connection with the operation of any Transferred System or of Holdco, except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(c) Except as described on Schedule 6.22(c), neither Time Warner Cable nor any of its Affiliates has received any written notice of, or has any knowledge of circumstances relating to, and, to the knowledge of Time Warner Cable, there are no past events, facts, conditions, circumstances, activities, practices or incidents (including but not limited to the presence, use, generation, manufacture, disposal, release or threatened release of any Hazardous Substances) relating to any Transferred Asset or in connection with the operation of any Transferred System or of Holdco, which could materially interfere with or prevent material compliance with, or which have resulted in or are reasonably likely to give rise to any material liability of any kind whatsoever, whether accrued, contingent, absolute, determined, determinable or otherwise, arising under or relating to any Environmental Law.

(d) Except as set forth on Schedule 6.22(d), to Time Warner Cable's knowledge, no Transferred Asset nor any property to which Hazardous Substances located on or resulting from the use of any Transferred Asset (or from the operation of the Transferred System or Holdco), have been transported, is listed or proposed for listing on the National Priorities List promulgated pursuant to CERCLA, or CERCLIS (as defined in CERCLA) or on any similar federal, state, local or foreign list of sites requiring investigation or cleanup.

(e) Prior to the date hereof (or, with respect to the Designated Systems, the Amendment Date), Time Warner Cable has provided or made available to Comcast Trust and Comcast Subsidiary copies of all material environmental assessments, or other material environmental studies, audits, tests, reviews or other analyses of or relating to the Transferred Assets and/or Transferred Systems.

(f) None of the tangible Transferred Assets (excluding the Cash Amount) are located in New Jersey or Connecticut.

Section 6.23 Taxes. Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect or as set forth on Schedule 6.23:

(a) All material Applicable Tax Returns have been duly and timely filed (taking into account extensions) or, where not so timely filed, are covered under a valid extension that has been obtained therefor and the information set forth on such Tax Returns is true, correct and complete in all material respects.

(b) All Applicable Taxes shown as due on the Applicable Tax Returns referred to in clause (a) have been paid in full.

(c) All deficiencies asserted or assessments made with respect to the Transferred Business as a result of the examinations of any of the Applicable Tax Returns referred to in clause (a) (together with any interest, additions or penalties with respect thereto and any interest in respect of such additions or penalties) have been paid in full.

(d) No issues with respect to the Transferred Business that have been raised in writing by the relevant Governmental Authority in connection with the examination of any of the Applicable Tax Returns referred to in clause (a) are pending.

(e) Schedule 6.23(e) sets forth a list of all jurisdictions (whether foreign or domestic) in which Holdco or any of the Transferred Systems currently file Applicable Tax Returns. No written claim with respect to Applicable Taxes has been made by any Governmental Authority in a jurisdiction where the Transferred Business does not file Applicable Tax Returns that it is or may be subject to taxation by that jurisdiction.

(f) There are no liens for Applicable Taxes upon the assets or properties of the Transferred Business, except for liens for Applicable Taxes not yet due and payable or being contested in good faith by appropriate proceedings.

Section 6.24 Tax Matters Agreement Representations. The representations and warranties set forth in Section 3 of the Tax Matters Agreement in the form attached hereto as Exhibit B are made as of the date hereof as if set forth in full herein.

ARTICLE 7

COVENANTS

Section 7.1 Certain Affirmative Covenants of Time Warner Cable. Except as otherwise expressly contemplated hereunder (including with respect to each of the Transactions) or as Comcast Subsidiary may otherwise consent in writing, which if requested shall not be unreasonably withheld or delayed, between the date of this Agreement, or with respect to the Designated Systems, the Amendment Date (or with respect to Section 7.1(h), the Option Exercise Date, and with respect to Section 7.1(i) (other than clauses (iii) and (iv) thereof), the Amendment Date) and the Closing Time, Time Warner Cable, with respect to each of the Transferred Systems and the Transferred Assets, shall, and shall cause its Affiliates to:

(a) operate or cause to be operated each Transferred System only in the usual, regular and ordinary course and in accordance with applicable material Legal Requirements (including completing line extensions, placing conduit or cable in new developments, fulfilling installation requests and continuing work on existing construction projects);

(b) perform all of its obligations under all of the Transferred Systems Franchises, Transferred Systems Licenses and Transferred Systems Contracts

without material breach or default and pay its Liabilities in the ordinary course of business;

(c) (i) maintain or cause to be maintained (A) the Transferred Assets in adequate condition and repair for their current use, ordinary wear and tear excepted, and (B) in full force and effect policies of insurance with respect to the Transferred Assets and the operation of the Transferred Systems in such amounts and with respect to such risks as are customarily maintained with respect to the Time Warner Cable Retained Cable Systems and (ii)enforce in good faith the rights under insurance policies referred to in (i)(B);

(d) deliver to Comcast Trust and Comcast Subsidiary reasonably promptly true and complete copies of all monthly trial balances, financial statements and Subscriber and other service recipient (including Individual Subscribers, Digital Subscribers, Telephony Subscribers and High Speed Data Subscribers) counts with respect to each Transferred System, management and operating reports and any written reports or data with respect to the operation of any Transferred System prepared by or for Time Warner Cable or its Affiliates at any time from the date hereof (or, with respect to the Designated Systems, the Amendment Date) until Closing;

(e) maintain or cause to be maintained its books, records and accounts with respect to the Transferred Assets and the operation of each Transferred System in the usual, regular and ordinary manner on a basis consistent with past practices;

(f) [Intentionally Omitted]

(g) use commercially reasonable efforts to renew any Transferred System Licenses which expire prior to the Closing Date;

(h) use its commercially reasonable efforts to obtain in writing as promptly as practicable the Time Warner Cable Required Consents and any other consent, authorization or approval necessary or commercially advisable in connection with the transactions contemplated hereunder (and shall deliver to Comcast Trust and Comcast Subsidiary copies of any such Time Warner Cable Required Consents and such other consents, authorizations or approvals as it obtains), in each case in form and substance reasonably satisfactory to Comcast Subsidiary; provided, that (i) Time Warner Cable shall have no obligation to make any payment (other than customary filing fees) to, or agree to any concession to, any Person to obtain any such consent, authorization or approval; and (ii) Time Warner Cable shall afford Comcast Subsidiary the opportunity to review and approve the form of Time Warner Cable Required Consent and such other consents prior to delivery to the party whose consent is sought and Time Warner Cable shall not accept or agree or accede to any modifications or amendments to or in connection with, or any conditions to the transfer of, any of the Transferred Systems Franchises, Transferred Systems Licenses or Transferred Systems Contracts of the Transferred Systems that are not approved in writing by Comcast Subsidiary, which approval shall not be unreasonably withheld or delayed. Time Warner Cable agrees,

upon reasonable prior notice, to allow representatives of Comcast Subsidiary to attend meetings and hearings before applicable Governmental Authorities in connection with the transfer of any Transferred Systems License or Transferred Systems Franchise. Notwithstanding the foregoing, Time Warner Cable shall not have any further obligation to obtain Time Warner Cable Required Consents:

(i) with respect to Contracts relating to pole attachments where the licensing Person shall not consent to an assignment of such license agreement but requires that Holdco enter into a new agreement with such Person on overall terms which are no less favorable to Holdco than the original license agreement was to Time Warner Cable, in which case Time Warner Cable shall cooperate with and assist Comcast Subsidiary and Holdco in obtaining such agreements; and

(ii) for any business radio license or any private operational fixed service ("POFS") microwave license which Time Warner Cable Required Consent could reasonably be expected to be obtained within 120 days after Closing and so long as a conditional temporary authorization (for a business radio license) or a special temporary authorization (for a POFS license) is obtained by Holdco under FCC rules with respect thereto;

(i) (i) use its commercially reasonable efforts to preserve the current business organization of each Transferred System intact, including preserving existing relationships with Governmental Authorities, suppliers, customers and others having business dealings with each Transferred System, unless Comcast Subsidiary requests otherwise, (ii) use commercially reasonable efforts to keep available the services of its employees providing services in connection with each Transferred System, (iii) continue normal marketing, advertising and promotional expenditures with respect to each Transferred System and (iv) (A) prior to January 1, 2005, make capital expenditures in accordance with the August 2004 re-estimated capital budget of each Transferred System set forth on Schedule 7.1(i)(A) (the "2004 Capital Budget") and from January 1, 2005 through December 31, 2005 make capital expenditures in accordance with the 2005 capital budget of each Transferred System set forth on Schedule 7.1(i)(B) (the "2005 Capital Budget"), (B) prior to January 1, 2005, make aggregate expenditures (other than Variable Expense Items) in accordance with the 2004 operating budget for each Transferred System set forth on Schedule 7.1(i)(C) (the "2004 Operating Budget", and together with the 2004 Capital Budget, the "2004 Budgets") and from January 1, 2005 through December 31, 2005 make aggregate expenditures (other than Variable Expense Items) in accordance with the 2005 operating budget for each Transferred System set forth on Schedule
7.1(i)(D) (the "2005 Operating Budget", and together with the 2005 Capital Budget, the "2005 Budgets"), (C) until January 1, 2006, with respect to Transferred Systems included in the Specified Division, make telephony capital and telephony operating expenditures with respect to the Transferred Systems on a non-discriminatory

basis as compared to the Specified Division; provided, however, that, in each case, deviations (positive or negative) in any such expenditures by no more than 5% of the aggregate budgeted amount shall be deemed to be in accordance with the 2004 Budgets or 2005 Budgets, as applicable, and (D) until January 1, 2006, make capital and operating expenditures with respect to the Monroe cable systems on a non-discriminatory basis as compared to the Jackson cable systems; provided, further, that, in any event, deviations (positive or negative) in any expenditures contemplated by the telephony budgets included in any Budget shall be deemed to be in accordance with such Budget so long as Time Warner Cable shall have used commercially reasonable efforts to operate in accordance with such telephony budgets;

(j) except as otherwise provided in this Agreement, Time Warner Cable will use commercially reasonable efforts to promptly notify Comcast Trust and Comcast Subsidiary of any circumstance, event or action by Time Warner Cable or any of its Subsidiaries or otherwise, that becomes known to Time Warner Cable,
(i) which, if known at the date of this Agreement (or, with respect to the Designated Systems, the Amendment Date), would have been required to be disclosed in or pursuant to this Agreement or (ii) the existence, occurrence or taking of which would result in any of its representations and warranties in this Agreement or in any Transaction Document to which it or any Transferring Person is a party not being true and correct in all material respects (or if qualified by materiality or Material Adverse Effect, in all respects) when made or at Closing (unless and to the extent that any such representation or warranty speaks specifically as of an earlier date, in which case, at such earlier date); provided, that any notification provided by Time Warner Cable solely pursuant to this subsection shall not be deemed to update the Schedules to this Agreement under Section 7.11 hereof unless Time Warner Cable expressly specifies that such notification is intended as an update pursuant to Section 7.11;

(k) give or cause to be given to Comcast Subsidiary, and its counsel, accountants and other representatives, (i) as soon as reasonably possible, but in any event prior to the date of submission to the appropriate Governmental Authority, copies of all FCC Forms 1200, 1205, 1210, 1215, 1220 and 1240, and simultaneous with, or as soon as reasonably possible after submission to the appropriate Government Authority, any other FCC Forms required under the regulations of the FCC promulgated under the Cable Act that are prepared with respect to any of the Transferred Systems and (ii) as soon as reasonably possible after filing, copies of all copyright returns filed in connection with any Transferred System; provided, that in the case of clause (i), before any such FCC Forms 1200, 1205, 1210, 1215, 1220 or 1240 are filed, Time Warner Cable and Comcast Subsidiary shall consult in good faith concerning the contents of such forms;

(l) use commercially reasonable efforts to implement all rate changes provided for in the 2004 Operating Budget and the 2005 Operating Budget, as applicable or, with respect to periods after January 1, 2006, rate changes in the ordinary course of business; and

(m) maintain inventory sufficient for the operation of the Transferred Systems in the ordinary course of business for a period of time consistent with the period of time such inventory is maintained for the Specified Division (or in the case of the Monroe cable systems, the period of time such inventory is maintained for the Time Warner Cable Retained Cable System).

Section 7.2 Certain Negative Covenants of Time Warner Cable. Except as otherwise expressly contemplated hereunder (including with respect to the Holdco Transaction) or as Comcast Subsidiary may otherwise consent in writing, which if requested shall not be unreasonably withheld or delayed, between the Amendment Date and the Closing or, with respect to Sections 7.2(d) (to the extent relating to Section 6.24), (h), (j), (k), (m), (n), (o), (p), (q) and (r) (and, to the extent relating to such Sections, Section 7.2(s)), between the date hereof (or, with respect to the Designated Systems, the Amendment Date) and the Closing, Time Warner Cable shall not, and shall cause its Affiliates not to, with respect to any of the Transferred Systems or the Transferred Assets (and, in the case of
Section 7.2(d) (and, to the extent relating thereto, Section 7.2(s)), the transactions contemplated hereby):

(a) modify, terminate, renew, suspend or abrogate any material Transferred Systems Contract other than in the ordinary course of business;

(b) modify in any material respect, terminate, renew, suspend or abrogate any Transferred Systems Franchise or material Transferred Systems License;

(c) except as set forth on Schedule 7.2(c), and except for Contracts in respect of SMATV Acquisitions (other than any SMATV Acquisition in which the SMATV Purchase Price Per Subscriber exceeds $3,500) and renewals and extensions of leases, in each case entered into in the ordinary course of business, enter into any Contract or commitment of any kind relating to the Transferred Systems which would be binding on Holdco after Closing and which (i) would involve an aggregate expenditure or receipt in excess of $500,000 after Closing; (ii) would have a term in excess of one year after Closing unless terminable without payment or penalty upon 30 days' (or fewer) notice (other than with respect to bulk service, commercial service or multiple dwelling unit access Contracts);
(iii) is not being entered into in the usual regular and ordinary course and in accordance with past practices; (iv) would limit the freedom of Holdco, Comcast or any Affiliate of Comcast to compete in any line of business or with any Person or in any area; (v) relates to the use of the Transferred Assets by third parties to provide telephone or high speed data services; (vi) is not on arm's-length terms; or (vii) is with Time Warner Cable or an Affiliate of Time Warner Cable and is not terminated prior to the Closing without penalty and without liability on the part of Holdco or its Affiliates from and after Closing;

(d) enter into any transaction or take any action that would result in any of its representations and warranties in this Agreement or in any Transaction Document to which it or any of its Affiliates is a party not being true and correct in all material respects (or if qualified by materiality or Material Adverse Effect, in all respects) when made or at Closing (unless and to the extent that any such representation or warranty speaks specifically as of an earlier date, in which case, at such earlier date); provided, however, that with respect to the representation and warranty provided in Section 6.24 hereof, and subject to Section 7.2(p) hereof, Time Warner Cable and its respective Affiliates may enter into any transaction or take any action not otherwise prohibited by this Agreement provided that such transactions or actions would not (i) result in such representation and warranty not being true and correct at Closing, and (ii)

reasonably be expected to (w) cause the Holdco Transaction and the TWC Redemption not to qualify as a reorganization and distribution within the meaning of Sections 368(a)(1)(D), 361(c) and 355 of the Code, (x) cause any of the shares of Holdco not to qualify as "qualified property" for purposes of
Section 355(c)(2) and 361(c) of the Code, (y) cause any of the shares of Holdco to constitute "other property" for purposes of Section 355(a)(3)(B) of the Code, or (z) result in Tax consequences to Comcast or any of its Affiliates that are materially worse than the expected Tax consequences of the GP Redemption, Subsidiary Transfers, Holdco Transaction or the TWC Redemption; provided, that, in no case, shall any or all of (I) the Adelphia Transactions (as defined in the TWC Redemption Agreement); provided, that either (i) all members (other than Holdco) of the Affiliated Group for U.S. federal income tax purposes of which TWC is (or would be), as of the date hereof, the common parent remain, immediately after the Closing, members of the Affiliated Group for U.S. federal income tax purposes of which TWC is (or would be) the common parent or (ii) to the extent that any member of the Affiliated Group for U.S. federal income tax purposes of which TWC is (or would be), as of the date hereof, the common parent (other than TWC) is not in existence immediately after the Closing, the assets of such member were transferred to another member of the Affiliated Group for U.S. federal income tax purposes of which TWC is (or would be) the common parent by reason of a transaction in which no gain or loss was recognized, in whole or in part, for U.S. federal income tax purposes, (II) Time Warner Cable ceasing to be a member of the Affiliated Group of which TWX is the parent for federal income tax purposes, (III) members of the Affiliated Group of which TWX is the parent for federal income tax purposes ceasing to own, in the aggregate, stock representing "control" of Time Warner Cable within the meaning of Section 368(c) of the Code, (IV) any change in value (including by reason of changes in the number of Individual Subscribers with respect to any of the Transferred Systems or the Time Warner Cable Retained Cable Systems), from the date hereof to the Closing of any or all of the Transferred Systems or the Time Warner Cable Retained Cable Systems, (V) a fire, theft or other casualty as contemplated in Sections 12.16(a), (VI) a Taking as contemplated in Sections 12.16(b) or (VII) the liquidation for federal income tax purposes of Time Warner Cable West Virginia LLC, a Delaware limited liability company, on or before May 12, 2005, constitute a breach of this Section 7.2(d);

(e) engage in any marketing, subscriber installation or collection practices other than in the ordinary course of business;

(f) except for rate increases provided for in the 2004 Operating Budget or the 2005 Operating Budget, as applicable, or with respect to periods after January 1, 2006, rate changes in the ordinary course of business, change the rate charged for any level of cable television service;

(g) except as required by applicable Legal Requirements and except as set forth on Schedule 7.2(g), add any channels to any Transferred System, or change the channel lineup in any Transferred System or commit to do so in the future (provided that deletions of channels shall not be considered a change in channel lineup);

(h) except for "staying" or "sticking" bonuses to induce such employees to remain with the Transferred Systems and which shall be paid for by Time Warner Cable on or prior to Closing, grant or agree to grant to any employee of the Transferred Systems any increase in (i) wages or bonuses except in the ordinary course of business and consistent with past practices or (ii) any severance, profit sharing, retirement, deferred compensation, insurance or other compensation or benefits, except in the ordinary course of business and consistent with past practices; provided, however, that the foregoing shall not apply to any Retained Employees;

(i) engage in any hiring practices that are materially inconsistent with past practices;

(j) transfer the employment duties of any employee of a Transferred System from such Transferred System to a different business unit or Subsidiary of Time Warner Cable or any of its Affiliates; provided, however, that the foregoing shall not apply to any Retained Employees;

(k) sell, assign, transfer or otherwise dispose of any Transferred Assets except in the ordinary course of business and except for (i) the disposition of obsolete or worn-out equipment, (ii) dispositions with respect to which such Transferred Assets are replaced with assets of at least equal value,
(iii) the Holdco Transaction, or (iv) transfers solely among Time Warner Cable and its Affiliates (whereupon any such transferee would become a "Transferring Person" hereunder); provided, for the avoidance of doubt, that the foregoing clause shall not permit the disposition of any Transferred System other than pursuant to the Transaction;

(l) mortgage, pledge or subject to any material Lien that would survive the Closing, any of the Transferred Assets or the Transferred Systems other than Permitted Liens;

(m) enter into any Transferred System specific programming agreement (other than Local Retransmission Consent Agreements) relating to the Transferred Assets or the Transferred Systems that is not terminated prior to the Closing without penalty and without liability on the part of Holdco or its Affiliates from and after Closing;

(n) make any cost-of-service or hardship election under the Rules and Regulations adopted under the Cable Act;

(o) make any material change to any method of accounting except for any such change required by reason of a concurrent (including any transition period) change in GAAP or applicable law or any change respecting the Specified Division (or in the case of the Monroe cable systems, any change respecting the Time Warner Cable Retained Systems) made in accordance with GAAP; provided, that no such change shall affect the calculation of the Closing Net Liabilities Amount;

(p) make or change in any material respect any Tax election, change any annual Tax accounting period or adopt or change any method of Tax

accounting, file any amended Tax Returns enter into any closing agreement, settle any Tax claim or assessment, surrender any right to claim a Tax Refund, offset or any other reduction in Tax liability or consent to any extension or waiver of the limitations period applicable to any Tax claim or assessment, in each case, in a manner that is inconsistent with the Tax treatment applicable to the Time Warner Cable Retained Cable Systems; or

(q) convert any billing systems used by the Transferred Systems (other than the conversion described on Schedule 7.2(q));

(r) launch cable telephony service in any Transferred System identified on Schedule 7.2(r); or

(s) announce an intention, commit or agree to do any of the foregoing.

Section 7.3 Certain Additional Covenants Regarding Required Consents; HSR Act Filing.

(a) With respect to the Transferred Systems numbered (1), (7), (8) and (9) on Schedule A, by no later than 45 days after the earlier of (i) September 30, 2005 and (ii) termination of the TWC Redemption Agreement prior to the Closing (as defined in the TWC Redemption Agreement) occurring, Comcast Trust, Comcast Subsidiary and Time Warner Cable shall provide each other with all necessary documentation to allow filing of FCC Forms 394 with respect to such Transferred Systems Franchises. Comcast Trust, Comcast Subsidiary and Time Warner Cable shall use commercially reasonable efforts to cooperate with one another and file with the applicable Governmental Authority FCC Forms 394 for each of the Transferred System Franchises with respect to the Transferred Systems numbered (1), (7), (8) and (9) on Schedule A which requires the consent of such Governmental Authority in connection with the transactions contemplated by this Agreement, no later than 60 days after the earlier of (i) September 30, 2005 and (ii) termination of the TWC Redemption Agreement prior to the Closing (as defined in the TWC Redemption Agreement) occurring. In the event that on or prior to September 30, 2005 the condition set forth in Section 8.1(l) shall not have been satisfied, Time Warner Cable, Comcast Trust and Comcast Subsidiary shall discuss in good faith whether the filing of FCC Forms 394 with respect to the Transferred Systems numbered (1), (7), (8) and (9) on Schedule A, as of the time period contemplated by the preceding sentence, is advisable and whether such time period should be extended. With respect to the Transferred Systems numbered (2), (3), (4), (5) and (6) on Schedule A, Comcast Trust, Comcast Subsidiary and Time Warner Cable agree that the requirement to make FCC Form 394 filings to be made with respect to such Transferred Systems shall be satisfied by the filings made with respect to such Transferred Systems pursuant to Section 7.3(a) of the TWC Redemption Agreement and that such filings shall appropriately reflect the possibility of such Transferred Systems being transferred pursuant to this Agreement.

(b) Subject to Section 7.1(h), from and after the Option Exercise Date, the parties shall use their commercially reasonable efforts to cooperate

with each other in obtaining the Time Warner Cable Required Consents and any other consent, Authorization or approval, including with the relevant franchising authorities in respect of the Transferred Systems Franchises, necessary or commercially advisable with respect to the transactions contemplated hereunder including, to the extent commercially reasonable, the attendance of representatives of Comcast Trust and Comcast Subsidiary at meetings and hearings before applicable Governmental Authorities in connection with the transfer of any Transferred Systems License or Transferred Systems Franchise and by providing appropriate financial statements, insurance certificates and surety bonds required to obtain such Time Warner Cable Required Consents.

(c) The parties shall as soon as practicable after the Option Exercise Date, but in any event no later than 20 Business Days after the Option Exercise Date, complete and file, or cause to be completed and filed, any notification and report required to be filed under the HSR Act with respect to the transactions contemplated by this Agreement and each such filing shall request early termination of the waiting period imposed by the HSR Act. The parties shall use commercially reasonable efforts to respond as promptly as reasonably practicable to any inquiries or requests received from a Governmental Authority for additional information or documentation in connection with antitrust matters. The parties shall use commercially reasonable efforts to overcome any objections which may be raised by any Governmental Authority having jurisdiction over antitrust matters. Each party shall cooperate to prevent inconsistencies between their respective filings and between their respective responses to all such inquiries and requests, and shall furnish to each other such necessary information and reasonable assistance as the other may request in connection with its preparation of necessary filings or submissions under the HSR Act. Notwithstanding the foregoing or anything else in the Agreement to the contrary, neither party shall be required to enter into any consent decree with any Governmental Authority relating to antitrust matters or to sell or hold separate any assets or make any change in operations or activities of the business (or any material assets employed therein) of such party or its Affiliates, if a party determines in good faith that such change would be adverse to the operations or activities of the business (or any material assets employed therein) of such party or any of its Affiliates having significant assets, net worth or revenue. The cost of any filing fees in connection with any required filing pursuant to the HSR Act shall be borne equally by Comcast Subsidiary and Time Warner Cable.

(d) The parties understand and agree that as part of the FCC Trust Requirements the declaration of trust of Comcast Trust may be required to be amended in order to permit the TWC Redemption or the Comcast Subsidiary Transfer, and any such amendment would require approval of the FCC. If such amendment is required, Comcast Trust and Comcast Subsidiary agree to use commercially reasonable efforts to obtain such approval prior to Closing, and if such approval is obtained, Comcast Trust and Comcast Subsidiary will amend the declaration of trust of Comcast Trust to permit the consummation of the transactions contemplated by this Agreement.

Section 7.4 Confidentiality and Publicity.

(a) Unless and until Closing occurs, any non public information that any party may obtain from the other in connection with this Agreement shall be confidential, and following Closing, each party shall keep confidential any non public information that such party may receive from another party in connection with this Agreement unrelated to the Transferred Systems or Transferred Assets and Time Warner Cable and its Affiliates shall keep confidential any non public information in their possession related to the Transferred Systems and Transferred Assets (any such information that a party is required to keep confidential pursuant to this sentence shall be referred to as "Confidential Information"). No party shall disclose any Confidential Information to any other Person (other than its Affiliates and its and its Affiliates' directors, officers and employees, and representatives of its advisers and lenders, in each case, whose knowledge thereof is necessary in order to facilitate the consummation of the transactions contemplated hereby, in which case such party shall be responsible for any breach by any such Person) or use such information to the detriment of the other; provided, that (i) such party may use and disclose any such information once it has been publicly disclosed (other than by such party in breach of its obligations under this Section) or which, to its knowledge, rightfully has come into the possession of such party (other than from the other party), and (ii) to the extent that such party may, in the reasonable judgment of its counsel, be compelled by Legal Requirements to disclose any of such information, such party may disclose such information if it has used commercially reasonable efforts, and has afforded the other the opportunity, to obtain an appropriate protective order, or other satisfactory assurance of confidential treatment, for the information compelled to be disclosed and (iii) such party may use and disclose such information to the extent reasonably necessary to permit such party to file Tax Returns, defend any dispute relating to Taxes, claim any Refund or otherwise provide information to a Governmental Authority in connection with any other Tax Proceeding and (iv) such party may use and disclose such information to the extent necessary to comply with Legal Requirements or any periodic reporting obligations such party may have by virtue of such party or any of its Affiliates having securities listed on a national securities exchange or quotation system. In the event of termination of this Agreement, (A) the obligation set forth in this Section shall continue for a period of two years after such termination, and (B) each party shall use commercially reasonable efforts to cause to be delivered to the other, and to retain no copies of, any documents, work papers or other materials obtained by such party or on its behalf from the other, whether so obtained before or after the execution of this Agreement. For the avoidance of doubt, Comcast Trust may disclose any Confidential Information to Comcast Subsidiary and its Affiliates and their respective representatives.

(b) Each of the parties hereto shall consult with and cooperate with the others with respect to the content and timing of all press releases and other public announcements, and any oral or written statements to Transferred System Employees concerning this Agreement and the transactions contemplated hereby. Except as required by applicable Legal Requirements or by any national securities exchange or quotation system, no party hereto shall make any such release, announcement or statement without the prior written consent and approval of the other, which shall not be unreasonably withheld. The party receiving a request for a consent shall respond promptly to any such request for consent and approval.

(c) At Comcast's request, which shall be provided to TWC no later than thirty (30) days prior to the expected Closing Date (such date, the "Diligence Request Date"), TWC shall provide Comcast with (i) the most recent consolidated balance sheet for the TWC Affiliated Group (as defined in the Tax Matters Agreement) as of the Diligence Request Date, (ii) a reasonable good faith estimate of the aggregate number of Individual Subscribers of such TWC Affiliated Group (as defined in the Tax Matters Agreement) as of the Diligence Request Date; (iii) summary financial information with respect to any nonconsolidated investments of any member of the TWC Affiliated Group (as defined in the Tax Matters Agreement) as of the Diligence Request Date; and (iv) a reasonable good faith estimate of the aggregate number of Individual Subscribers of the Transferred Systems as of the Diligence Request Date.

Section 7.5 Retransmission Consent Agreements. On or prior to the date which is 45 days prior to the anticipated date of Closing, Time Warner Cable shall deliver to Comcast Trust and Comcast Subsidiary a list of all Local Retransmission Consent Agreements then in effect with respect to the Transferred Systems. By written notice delivered to Time Warner Cable at least 30 days prior to Closing, Comcast Subsidiary may, in its sole discretion, elect to have Holdco assume one or more of the Local Retransmission Consent Agreements, in which case Time Warner Cable shall use commercially reasonable efforts to obtain any required Authorizations for such assumption. The foregoing shall be subject to Section 2.1(e) to the extent any related Authorization is not obtained. Any Local Retransmission Consent Agreements which Comcast Subsidiary elects to have Holdco assume pursuant to this Section 7.5 shall be included in the Transferred Assets. To the extent the provisions of this Section 7.5 conflict with any other provision of this Agreement, the provisions of this Section 7.5 shall control.

Section 7.6 Title Insurance Commitments. Time Warner Cable shall use commercially reasonable efforts to provide to Comcast Subsidiary, within 90 days from the date Time Warner Cable receives the Title Commitment Notice, or, in the case of any Survey, such longer period of time as is necessary to obtain such Survey with the exercise of reasonable diligence, (a) commitments to issue to Holdco title insurance policies ("Title Commitments") in amounts reasonably satisfactory to Comcast Subsidiary issued by a nationally recognized title insurance company (a "Title Company") and containing, to the extent available, legible photocopies of all recorded items described as exceptions therein, committing to insure, subject only to Permitted Liens, fee or a valid leasehold title, as applicable, in Holdco to each parcel of Owned Property or Leased Property designated by Comcast Subsidiary by notice (the "Title Commitment Notice"), provided, that any parcel of Owned Real Property or Leased Property designated in a Title Commitment Notice (as defined in the Tolling Agreement or the TWC Redemption Agreement) will be deemed to have been properly designated in a Title Commitment Notice hereunder) delivered to Time Warner Cable within 37 days following the Option Exercise Date by ALTA extended coverage owner's or leasehold policies of title insurance, or, if ALTA policies are not obtainable in any state, policies in another form reasonably satisfactory to Comcast Subsidiary, and (b) surveys of each parcel of Owned Property or Leased Property designated by Comcast Subsidiary in the Title Commitment Notice ("Surveys"), in such form as is reasonably necessary to obtain

the title insurance to be issued pursuant to the related Title Commitments with the standard printed exceptions relating to survey matters deleted, certified to Holdco, Comcast Subsidiary and to the Title Company with respect to that Owned Property or Leased Property, provided that Time Warner Cable's inability to provide Title Commitments satisfying the foregoing requirements shall not constitute a breach of the foregoing covenant if the Liens, or other matters relating to title, giving rise to such inability would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. In no event shall Time Warner Cable be obligated to procure a Title Commitment for any Leased Property with respect to which the Lease or a memorandum thereof has not been recorded in the land records of the county in which the Leased Property is located. The cost to obtain such Title Commitments and Surveys and other documents required by the Title Company to issue such policies and Surveys, as well as the cost of title policy premiums, shall be borne by Comcast Subsidiary, except for attorney's fees and other incidental costs incurred by Time Warner Cable in connection with providing such Title Commitments and Surveys and otherwise complying with this Section 7.6. If Comcast Subsidiary notifies Time Warner Cable within 30 days following delivery to Comcast Subsidiary of both the Title Commitments and the Surveys of any Lien (other than a Permitted Lien or a Lien set forth in Schedule 6.4 (a)) which prevents access to or which could prevent or impede in any material way the use or operation of any parcel of Owned Property or Leased Property for which a Title Commitment is required pursuant to this Section 7.6 for the purposes for which it is currently used or operated by Time Warner Cable (each a "Title Defect"), Time Warner Cable shall exercise commercially reasonable efforts, including paying attorney's fees and other incidental costs associated with any such efforts, to (i) remove such Title Defect, or (ii) cause the Title Company to commit to insure over each such Title Defect prior to Closing at customary premium rates without additional premium or charge. If such Title Defect cannot be removed prior to Closing or the Title Company does not commit to insure over such Title Defect prior to Closing, Comcast Subsidiary and Time Warner Cable shall enter into a written agreement containing Time Warner Cable's commitment to use commercially reasonable efforts for 180 days following Closing to remedy the Title Defect following Closing on terms satisfactory to Comcast Subsidiary, in its reasonable discretion. Notwithstanding anything to the contrary contained in this Agreement, in no event shall Time Warner Cable or its Affiliates be required to remove any Liens encumbering the Owned Property and Leased Property except as expressly set forth in this Section 7.6 or to expend any moneys (other than attorneys' fees and other incidental costs as hereinabove set forth) or to incur any obligation in order to remove or cause the insuring over of any Liens (other than pursuant to customary short-form affidavits of title which do not in any event require Time Warner Cable or its Affiliates to make representations or incur obligations more onerous than those made or set forth elsewhere in this Agreement and customary gap indemnities covering Time Warner Cable's or its Affiliates' acts for the period between Closing and the recording of the applicable deed or assignment of lease with respect to such Owned Property or Leased Property), and in no event shall Time Warner Cable or its Affiliates be obligated to commence any Litigation to cause any Title Defects to be removed or insured over, and, without limiting the other provisions of this Section 7.6, in no event shall Time Warner

Cable or its Affiliates be required to give a non-imputation affidavit to the title insurance company.

Section 7.7 Intentionally Omitted.

Section 7.8 Post-Closing Obtaining of Consents. Subsequent to Closing, and subject to Section 2.1(e), Time Warner Cable shall and shall cause its Affiliates to continue to use commercially reasonable efforts to obtain in writing as promptly as possible any Authorization necessary or commercially advisable in connection with the transactions contemplated hereunder which was not obtained on or before Closing (a "Post Closing Consent") in form and substance reasonably satisfactory to Comcast Subsidiary. A true and complete copy of any such Post Closing Consent shall be delivered to each of Comcast Subsidiary and Holdco promptly after it has been obtained.

Section 7.9 Transitional Services.

(a) Time Warner Cable shall provide to Holdco, upon written request from Comcast Subsidiary received by Time Warner Cable no later than 30 days prior to the anticipated date of Closing, such subscriber billing, high speed data, telephony and other services as may be reasonably requested by Comcast Subsidiary in connection with the operation of the Transferred Systems for a commercially reasonable period following Closing to be mutually agreed upon in good faith by Time Warner Cable and Comcast Subsidiary to allow for transition of existing services or establishment of replacement services ("Transitional Services"). Holdco shall promptly reimburse Time Warner Cable for the actual out-of-pocket cost to Time Warner Cable and its Affiliates of providing any Transitional Services. All other terms and conditions for the provision of Transitional Services shall be reasonably satisfactory to both Comcast Subsidiary and Time Warner Cable and subject to applicable Legal Requirements.

(b) Time Warner Cable will, at its expense, rebuild the "HITS" headend for the Transferred System identified on Schedule 7.9 on or before the Closing and, after Closing, Time Warner Cable may, at its option, lease space from Holdco such that Time Warner Cable will continue to have access to a hubsite to be located on properties included in such system, all on terms mutually satisfactory to Time Warner Cable and Comcast Subsidiary to be negotiated in good faith prior to the Closing.

Section 7.10 Cooperation Upon Inquiries as to Rates. Comcast Subsidiary and Time Warner Cable agree as follows:

(a) For a period of 12 months after Closing, Time Warner Cable shall cooperate with and assist Holdco by providing, upon request, all information in Time Warner Cable's or its Affiliates' possession (and not previously provided to Comcast Subsidiary or Holdco) relating directly to the rates set forth in Schedule 6.8 or the then current rates with respect to any Transferred System, if different from the rates set forth on such Schedule, or the rates on any FCC Form 393, 1200, 1205, 1210, 1220,

1235, or 1240 that Holdco may reasonably require to justify such rates in response to any inquiry, order or requirement of any Governmental Authority or any Rate Regulatory Matter instituted before or after the date of this Agreement.

(b) If at any time prior to Closing, any Governmental Authority commences a Rate Regulatory Matter with respect to a Transferred System, Time Warner Cable shall (i) promptly notify Comcast Subsidiary, and (ii) keep Comcast Subsidiary informed as to the progress of any such proceeding. Without the prior written consent of Comcast Subsidiary (after the Amendment Date), which consent shall not be unreasonably withheld or delayed, Time Warner Cable shall not settle any such Rate Regulatory Matter, either before or after Closing, if (A) Holdco or any of its Affiliates would have any obligation under such settlement, or (B) such settlement would reduce the rates permitted to be charged by Holdco or any of its Affiliates after Closing below the rates set forth on Schedule 6.8 or otherwise then in effect. Notwithstanding anything to the contrary herein, after Closing, Holdco shall have the right, at its own expense, to assume control of the defense of any pending Rate Regulatory Matter, to the extent, and only to the extent, that it relates to a Transferred System. If Holdco elects to assume control of the defense of any such Rate Regulatory Matter, Time Warner Cable shall have the right to participate, at its expense, in the defense of such matter. Notwithstanding the provisions set forth in Article 11 of this Agreement, Holdco may settle any such Rate Regulatory Matter only upon Time Warner Cable's prior written consent, which consent shall not be unreasonably withheld or delayed, if Time Warner Cable would have any obligation with respect to such settlement in accordance with Article 11 hereof or otherwise.

(c) If at any time after Closing, any Governmental Authority commences a Rate Regulatory Matter with respect to a Transferred System involving any time period prior to Closing, Comcast Subsidiary shall cause Holdco to (i) promptly notify Time Warner Cable, and (ii) keep Time Warner Cable informed as to the progress of any such proceeding. Time Warner Cable shall have the right to participate, at its expense, in the defense of such matter. Notwithstanding the provisions set forth in Article 11 of this Agreement, Holdco may settle any such Rate Regulatory Matter only upon Time Warner Cable's prior written consent, which consent shall not be unreasonably withheld or delayed, if Time Warner Cable would have any obligation with respect to such settlement in accordance with Article 11 hereof or otherwise.

(d) For purposes hereof, "Rate Regulatory Matter" means any proceeding or investigation with respect to a Transferred System arising out of or related to the Cable Act (other than those affecting the cable television industry generally) dealing with, limiting or affecting the rates which can be charged by such Transferred System for programming, equipment, installation, service or otherwise.

(e) If Time Warner Cable or any of its Affiliates is required following Closing pursuant to any Rate Regulatory Matter or any other Legal Requirement, settlement or otherwise to reimburse any Subscribers for any Subscriber payments previously made by it, including fees for cable television service, late fees and similar payments, Comcast Subsidiary shall cause Holdco, at Time Warner Cable's

request, to make such reimbursement through Holdco's billing system on terms specified by Comcast Subsidiary. In such event, Time Warner Cable shall promptly pay to Holdco all such payments made by Holdco through its billing system. Without limiting the foregoing, Comcast Subsidiary shall cause Holdco to provide to Time Warner Cable all information in its possession that is reasonably required by Time Warner Cable in connection with such reimbursement.

Section 7.11 Updated Schedules.

(a) On one or more occasions, Time Warner Cable may, at least five Business Days prior to Closing: (i) supplement Schedule 6.5(a) to reflect leases, franchises, licenses, authorizations, consents, permits, Contracts or commitments which were entered into or obtained between the Amendment Date (or, with respect to the SSBC Systems, the date of delivery of the Second Stage Bringdown Certificate) and the Closing Date not in violation of the terms of this Agreement and are required to be disclosed in Schedule 6.5(a) in order for the representation and warranty contained in Section 6.5(a) to be true, complete and correct or (ii) supplement any other Schedule to this Agreement (other than the Schedules to any of Section 6.1, 6.2, 6.15 or 6.18) or to the Tax Matters Agreement, with additional information to the extent that it reflects events, acts or omissions that first occurred between the date hereof (or, with respect to the Designated Systems, the Amendment Date) and the Closing Date and that are not prohibited by this Agreement to be taken, and that would have been required to be included in one or more Schedules to this Agreement or the Tax Matters Agreement in order for the representations and warranties of Time Warner Cable contained in this Agreement or in the Tax Matters Agreement to be true, complete and correct as of the Closing. Any such supplement to a Schedule pursuant to clause (i) above shall specifically identify each license, Contract or other item being added to Schedule 6.5(a) and any supplement pursuant to clause (ii) above shall be made with reasonable specificity and shall identify, to Time Warner Cable's knowledge, the potential Liability associated with the relevant action, condition or event. Without limitation to Section 7.20, for purposes of determining whether there is any liability on the part of Time Warner Cable following Closing for breaches of its representations and warranties under this Agreement, the Schedules to this Agreement shall be deemed to include only (a) the information contained therein on the date hereof (or, with respect to the Designated Systems, the Amendment Date), (b) to the extent relating to the SSBC Systems information added to the Schedules for Section 6.3(c), 6.3(f) or 6.5 pursuant to Section 7.20 and (c) information added to such Schedules by written supplements to this Agreement delivered in accordance with the first sentence of this Section 7.11; provided, that for purposes of determining the satisfaction of the condition set forth in Section 8.1 (a), any update to the Schedules pursuant to clause (c) of this sentence shall be disregarded.

(b) In addition, if after the date that is the fifth Business Day prior to Closing, but before the Closing, Time Warner Cable first becomes aware of any event, act, occurrence or omission which, if known on the fifth day prior to Closing would have been permitted to be included in a supplement pursuant to clause (ii) of the foregoing paragraph, then Time Warner Cable may make such supplement as provided

above (in which case such supplement shall be deemed to have been made pursuant to clause (ii) of the foregoing paragraph); provided that Time Warner Cable may only utilize the rights in this paragraph on one occasion and, if Comcast Subsidiary elects, upon receipt of any such supplement pursuant to this paragraph, the date of Closing may be delayed until the end of the next succeeding month.

Section 7.12 Commercially Reasonable Efforts; Further Assurances. Subject to the terms and conditions of this Agreement, the parties hereto shall use commercially reasonable efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things necessary or desirable to consummate the transactions contemplated by this Agreement as promptly as practicable. Each of the parties hereto agrees to, and, in the case of Time Warner Cable and Comcast Subsidiary, to cause its Affiliates to, execute and deliver such other documents, certificates, agreements and other writings (including completed transfer tax returns, showing in each case a purchase price or consideration reasonably acceptable to Comcast Subsidiary and Time Warner Cable) and to take such other commercially reasonable actions as may be necessary or desirable in order to evidence, consummate or implement expeditiously the transactions contemplated by this Agreement and to vest in Holdco the same title to the Transferred Assets that Time Warner Cable (together with its Affiliates) had with respect thereto immediately prior to the Transactions.

Section 7.13 Post Closing Access to Personnel Records. After the Closing Date, Time Warner Cable shall, and shall cause its Affiliates to, provide Comcast Subsidiary and Holdco with access to, and the right to make copies or extracts of, pertinent information from the personnel files and records of Time Warner Cable and its Affiliates relating to Transferred System Employees (other than Retained Employees) in connection with litigation, administrative proceedings, payment of Applicable Taxes or any other valid business reason from time to time during normal business hours upon reasonable notice from Comcast Subsidiary or Holdco (i) with respect to matters other than matters relating to Applicable Taxes, for a period not to exceed one year from the Closing Date or (ii) with respect to matters relating to Applicable Taxes, until the expiration of the statute of limitations applicable to such Taxes, in each case except to the extent that Time Warner Cable is required by law to keep such files and records confidential.

Section 7.14 [Intentionally Omitted].

Section 7.15 Tax Returns with respect to Applicable Taxes.

(a) Time Warner Cable shall have exclusive and sole responsibility for the preparation and filing of all Applicable Tax Returns that are required to be filed with any Governmental Authority on or prior to the Closing Date.

(b) Holdco shall prepare and file all Applicable Tax Returns that are required to be filed with any Governmental Authority after the Closing Date. Holdco shall deliver any such Straddle Period Applicable Tax Returns to Time Warner Cable for its review at least 30 days prior to the date on which such Straddle Period

Applicable Tax Return is required to be filed. Except as provided herein, all Straddle Period Applicable Tax Returns shall (unless required by a change in applicable Tax law or a good faith resolution of a contest) be prepared on a basis consistent with the elections, accounting methods, conventions, assumptions and principles of taxation on the most recently filed Applicable Tax Returns of Holdco or a previous owner of the Transferred Systems to the extent relevant to such Transferred Systems. Subject to the foregoing, Time Warner Cable and Holdco shall reasonably cooperate with each other in the preparation and filing of any Straddle Period Applicable Tax Returns.

Section 7.16 Environmental Reports. Following the Amendment Date, Comcast Subsidiary may upon reasonable advance written notice and during normal business hours, at Comcast Subsidiary's expense, perform any environmental site assessments of the Owned Property or Leased Property (subject to the final sentence of this Section 7.16) as Comcast Subsidiary determines, in its sole discretion, to have performed; provided that prior to taking any samples of soil or groundwater for testing, Comcast Subsidiary shall have a reasonable basis for determining that such sampling is appropriate. Time Warner Cable shall cooperate with all reasonable requests of Comcast Subsidiary and its consultants with respect to the conduct of such assessments or sampling. Any assessment performed pursuant to this Section 7.16 shall to the fullest extent practicable be designed so as not to disrupt the business and operations of the Transferred Systems. Any right to perform an assessment pursuant to this Section 7.16 at a Leased Property shall be subject to Time Warner Cable not being prohibited from performing such assessment pursuant to the lease for such Leased Property.

Section 7.17 Certain Notices. Prior to the Closing, Time Warner Cable, with respect to the Transferred Systems, shall cause to be timely filed a request for renewal under Section 626 of the Cable Act with the proper Governmental Authority with respect to Transferred System Franchises that shall expire within 36 months after any date between the date of this Agreement and Closing Date.

Section 7.18 Franchise Expirations. From the Amendment Date until Closing, Time Warner Cable shall, and shall cause its Affiliates to, use commercially reasonable efforts to obtain renewals or valid extensions of any Transferred Systems Franchises which expire on or before June 30, 2008, in the ordinary course of business. Neither Time Warner Cable nor any of its Affiliates shall agree or accede to any material modifications or amendments to or in connection with, or the imposition of any material condition to the renewal or extension of, any of the Transferred System Franchises that are not reasonably acceptable to Comcast Subsidiary. Time Warner Cable agrees, from the Amendment Date until Closing, upon reasonable prior written notice, to allow representatives of Comcast Subsidiary to attend meetings and hearings before applicable Governmental Authorities in connection with the renewal or extension of any Transferred Systems License or Transferred Systems Franchise.

Section 7.19 Insurance. Time Warner Cable will use commercially reasonable efforts to take such actions as are necessary to cause insurance policies of Time Warner Cable and its Affiliates that immediately prior to Closing provide coverage to or with respect to the Transferred Business, the Transferred Assets or

the Transferred Systems to continue to provide such coverage with respect to acts, omissions, and events occurring prior to the Closing in accordance with their terms as if the Closing had not occurred; provided that to the extent Time Warner Cable takes any action with respect to its umbrella insurance policies that similarly effects all of the Time Warner Cable Retained Cable Systems but results in such insurance coverage no longer being available (other than a change denying coverage based upon a Person ceasing to be an Affiliate of Time Warner Cable), Time Warner Cable shall not be deemed to have breached this
Section 7.19 and shall have no liability with respect thereto. Time Warner Cable will give Comcast Subsidiary written notice of the taking of any such action if done during the first 12 months after the Closing prior to or as soon as practicable thereafter. Time Warner Cable shall, and shall cause its Affiliates to, cooperate with and assist Holdco, if Holdco determines to make any claim under any such policy with respect to any pre-Closing act, omission or event. Holdco shall use commercially reasonable efforts to promptly notify Time Warner Cable when it becomes aware of any such claim; provided, that the failure of Holdco to provide such notice shall not relieve Time Warner Cable of its obligations under this Section 7.19, except to the extent that Time Warner Cable's rights under the applicable insurance policy are prejudiced by such failure to give notice.

Section 7.20 Second Stage Review.

(a) The Comcast Parties acknowledge that as of the date hereof, to the extent that the representations and warranties set forth in Sections 6.3(c), 6.3(f) and 6.5 relate to the SSBC Systems, Time Warner Cable has only been required to make good faith efforts to make such representations and warranties true, correct and complete based on the limited information in the possession of Time Warner Cable as of the date hereof without consulting with the Transferred Systems Employees or obtaining any information in the possession of the Transferred Systems. The purpose of this Section 7.20 is that during the 23 day period after receipt of the Good Faith Notice, Time Warner Cable shall have the ability to update the Schedules for Sections 6.3(c), 6.3(f) and 6.5 with respect to the SSBC Systems by delivering the Second Stage Bringdown Certificate and Second Stage Documents, in each case after consultation with the employees of the Transferred Systems Employees, whereupon Comcast Subsidiary will have until 20 days after the receipt of such materials (the "Option Decision Date") to determine whether or not to exercise the Option (in its sole discretion). This
Section 7.20 shall be deemed to qualify each of the representations and warranties set forth in Sections 6.3(c), 6.3(f) and 6.5 in their entirety, but only to the extent such representations and warranties are made as of the date hereof and, in each case, only to the extent such representations and warranties relate to the SSBC Systems. Any update of Schedules made pursuant to this
Section 7.20 shall be made with reasonable specificity, in good faith. No item may be added to a Schedule pursuant to this Section 7.20 if the relevant item was, to Time Warner Cable's knowledge, located in one of the offices of Time Warner Cable identified on Schedule 7.20(a) (such offices, the "Designated Offices") as of the date hereof.

(b) At any time after October 5, 2004, Comcast Subsidiary may deliver to Time Warner Cable a written notice (the "Good Faith Notice") stating that

Comcast Subsidiary intends in good faith to exercise the Option on or prior to the Option Decision Date unless as a result of its diligence review after delivery by Time Warner Cable of the Second Stage Bringdown Certificate and the Second Stage Documents it determines that it is not in its best interest to exercise the Option. For the avoidance of doubt, no more than one Good Faith Notice may be delivered and no Good Faith Notice shall be delivered prior to the termination of the TWC Redemption Agreement. The delivery by Comcast Subsidiary to Time Warner Cable of a Good Faith Notice (as defined in the Tolling Agreement) shall be deemed to be the delivery of a Good Faith Notice under this Agreement.

(c) Time Warner Cable shall, within 23 days of receipt of the Good Faith Notice: (i) deliver to Comcast Trust and Comcast Subsidiary the Second Stage Bringdown Certificate and, concurrent therewith and (ii) provide or otherwise make available to Comcast Trust, Comcast Subsidiary and/or their respective counsel the Second Stage Documents in accordance with this Section 7.20; provided, however, that the delivery of a Second Stage Bringdown Certificate and Second Stage Documents under the Tolling Agreement will also be deemed to be the delivery of a Second Stage Bringdown Certificate and Second Stage Documents for purposes of this Agreement. All information included in the Schedules delivered with the Second Stage Bringdown Certificate shall be deemed to modify the representations and warranties set forth in Sections 6.3(c), 6.3(f) and 6.5, as applicable, as of the date hereof and as of the Closing Date but, in each case, only to the extent such representations and warranties relate to the SSBC Systems.

(d) Comcast Trust and Comcast Subsidiary may, on the Amendment Date, request additional documents relating to the Transferred Business, the Transferred Assets or the Transferred Systems. Any such documents that would reasonably be expected to be material to Comcast Subsidiary's decision as to whether to exercise the Option, and that can be delivered or otherwise made available to Comcast Trust and Comcast Subsidiary by Time Warner Cable's good faith exercise of its commercially reasonable efforts within 23 days of receipt of the Good Faith Notice, shall be so delivered or made available as Second Stage Documents concurrent with the delivery of the Second Stage Bringdown Certificate.

(e) [Intentionally Omitted]

(f) To the extent any representation and warranty in Sections 6.3(c), 6.3(f) and 6.5 relates to any SSBC System and purports to relate to any Second Stage Document, such representation and warranty shall, subject to Section 7.20(g), only be made in the Second Stage Bringdown Certificate and at Closing.

(g) The representations and warranties of Time Warner Cable in the Second Stage Bringdown Certificate will be treated as if they had been representations and warranties of Time Warner Cable in this Agreement for all purposes of this Agreement, including the conditions and indemnities in Articles 8 and 11, respectively.

(h) For the avoidance of doubt, notwithstanding the delivery of the Good Faith Notice, Comcast Subsidiary shall not be required or obligated to exercise the Option, and shall not otherwise be deemed to have exercised the Option, based upon delivery of the Good Faith Notice. The Option will only be exercised as set forth in Section 2.1(a)(i).

Section 7.21 [Intentionally Omitted]

Section 7.22 Promotional Campaigns. Between the date hereof (or, with respect to the Designated Systems, the Amendment Date) and the Closing, Time Warner Cable and its Affiliates shall not initiate any Subscriber campaigns or promotions on a local or regional level with respect to the Transferred Systems, other than (i) any such campaigns or promotions that are on the same terms and conditions (or on terms and conditions that are no less favorable to the Transferred Systems) as subscriber campaigns or promotions undertaken with respect to the relevant Transferred Systems during the year ended December 31, 2004 in the relevant market, (ii) any such campaigns or promotions that are not materially less favorable to the Transferred Systems than campaigns and promotions being conducted with respect to Time Warner Cable Retained Cable Systems on an overall basis, (iii) any such campaigns or promotions that are not materially less favorable to the Transferred Systems than campaigns and promotions being conducted by Comcast and its Affiliates in the same DMA, and (iv) any such campaigns or promotions that are either (x) with respect to campaigns and promotions conducted in an overbuild area, not materially less favorable to the Transferred Systems than the campaigns and promotions being conducted by the applicable overbuilder or RBOC or (y) not materially less favorable to the Transferred Systems than those being conducted by any direct broadcast satellite providers in the same DMA (but only in the relevant market of the relevant campaign or promotion).

Section 7.23 Launch Support. At the Closing, Time Warner Cable shall deliver to Comcast Subsidiary a schedule of the services subject to Specified Launch Support Liabilities and, with respect to each such service, the remaining time period (which shall in no event be later than the fifth anniversary of the date hereof (or, with respect to the Designated Systems, the fifth anniversary of the Amendment Date)) in which an action in respect of any Transferred System could result in an obligation to make a payment in respect of a Specified Launch Support Liability.

Section 7.24 Section 338(h)(10) Election.

(a) Subject to Section 7.24(b), the parties agree jointly to make a timely election under Section 338(h)(10) of the Code and any corresponding or similar elections under state, local or foreign Tax Law (in the state, local or foreign jurisdictions as requested by Comcast) with respect to the TWC Redemption (any such election, a "338(h)(10) Election"); provided, that, for the purpose of making any 338(h)(10) Election, the Internal Revenue Service Forms 8023 and 8883 (or successor forms, or any corresponding forms under state, local or foreign Tax Law in the state, local or foreign jurisdiction requested by Comcast) filed in connection with such election shall state on

the face of each such form that such election is being made as a "protective election" and shall contain the legend set forth in Exhibit D hereto.

(b) If, after the Closing Date but prior to the six month anniversary of the Closing Date, Comcast believes that there has been a change in Tax Law after the date hereof and that by reason of such change in Tax Law (x) the TWC Redemption should not qualify as a tax-free distribution governed by Section 355 of the Code, and (y) the TWC Redemption should constitute a "qualified stock purchase" within the meaning of Section 338(d)(3) of the Code (a "QSP") (any such conclusion, a "Determination"), Comcast shall provide written notice to Time Warner Cable of such Determination. If Time Warner Cable agrees with the Determination, Time Warner Cable shall provide Comcast with written notice of its agreement within 10 days (the "Determination Deadline") of receiving notice of the Determination (such agreement shall constitute a "Joint Determination"). If there has been no Joint Determination by the Determination Deadline, Time Warner Cable and Comcast agree jointly to appoint a law firm that is nationally recognized in matters relating to federal income taxation (any such law firm, a "Third Party Firm") within 7 Business Days of the Determination Deadline. If Time Warner Cable and Comcast cannot agree on the appointment of a Third Party Firm in accordance with the previous sentence, such parties shall request that the President of the Association of the Bar of the City of New York appoint, within 7 days, a Third Party Firm other than a law firm that is regularly employed by either Time Warner Cable or Comcast or any of their respective Affiliates. The Third Party Firm shall be requested to deliver, within 21 days of its appointment, a letter setting forth whether, by reason of the change in Tax Law referred to above, it is its opinion that, (I) the TWC Redemption should not qualify as a tax-free distribution governed by Section 355 of the Code, and
(II) the TWC Redemption should constitute a QSP (any affirmative opinion by such Third Party Firm that the items described in (I) and (II) of this sentence have been satisfied, an "Affirmative Third Party Firm Determination"). The fees and expenses of the Third Party Firm shall be borne equally by Time Warner Cable and Comcast.

(c) If, at any time prior to the nine month anniversary of the Closing Date, there shall have been a Joint Determination or an Affirmative Third Party Determination, the parties hereby agree, notwithstanding any other provision of this Agreement or the Transaction Documents, for all Income Tax Purposes (unless required by subsequent change in applicable Tax Law or as a result of a good faith resolution of a contest), (i) not to treat the TWC Redemption as a tax-free distribution governed by Section 355 of the Code, (ii) to treat the TWC Redemption as a QSP, and (iii) that any 338(h)(10) Election shall be filed without regard to the protective election described in the proviso to Section 7.24(a).

Section 7.25 Pre-Closing Access. (a) Prior to the Amendment Date Comcast shall not, and shall not permit any of its Affiliates to, without the prior written consent of Time Warner Cable (i) initiate or maintain contact with any Transferred Systems Employee regarding the transactions contemplated hereby or otherwise related thereto, (ii) access any of the properties, whether owned or leased, of the Transferred Systems and (iii) subject to applicable Legal Requirements disclose the identity of the Transferred Systems to any Person other than any of the officers,

employees, directors and advisors of Comcast or its Affiliates, provided that such officers, employees, directors and advisors are first advised of the confidential nature of such information. Comcast shall be responsible for any breach of such confidentiality obligation on the part of any of its Affiliates or such officers, employees, directors and advisors. No breach of this Section 7.25 shall result in a failure of the condition set forth in Section 8.2(b).

(b) From the Amendment Date until the Closing, subject to applicable law, Time Warner Cable shall, and shall cause its Affiliates to, (i) afford Comcast Subsidiary, Comcast Trust and their respective authorized representatives reasonable access, during regular business hours, upon reasonable advance notice, to the Transferred Systems (including the Transferred Assets and employees), (ii) furnish, or cause to be furnished, to Comcast Subsidiary or Comcast Trust any financial and operating data and other information with respect to such Transferred Systems as Comcast Subsidiary or Comcast Trust from time to time reasonably requests, and (iii) instruct its employees, and its counsel and financial advisors to cooperate with Comcast Subsidiary and Comcast Trust in their reasonable investigation of the Transferred Systems; provided that, in each case, any such access shall be designed so as to not unreasonably disrupt the business and operations of Time Warner Cable or its Affiliates; provided further that in no event shall Comcast Subsidiary or Comcast Trust have access to (A) any information that would reasonably be expected to create Liability under applicable laws, including U.S. antitrust laws, or waive any material legal privilege (provided that, in such latter event, Time Warner Cable and Comcast Subsidiary or Comcast Trust, as the case may be, shall use commercially reasonable efforts to cooperate to permit disclosure of such information in a manner consistent with the preservation of such legal privilege), (B) documents containing competitively sensitive information, trade secrets or other sensitive information (to the extent necessary to protect the legitimate legal, business and/or confidentiality concerns of Time Warner Cable and its Affiliates, but taking into account Comcast Subsidiary's and Comcast Trust's need for such information in connection with the transactions contemplated hereby), (C) any information to the extent such disclosure would reasonably be expected to violate any obligation of Time Warner Cable or its Affiliates with respect to confidentiality so long as, with respect to confidentiality, to the extent specifically requested by Comcast Subsidiary or Comcast Trust, Time Warner Cable has made commercially reasonable efforts to obtain a waiver regarding the possible disclosure from the third party to whom an obligation of confidentiality is owed or (D) any programming records; it being understood that Comcast Subsidiary and Comcast Trust shall conduct any environmental sampling solely in the manner contemplated by Section 7.16. All requests made pursuant to this Section 7.25(b) shall be directed to an executive officer of Time Warner Cable or such Person or Persons as may be designated by Time Warner Cable. All information received pursuant to this Section 7.25(b) shall, prior to the Closing, be governed by Section 7.4(a) and, to the extent applicable, the terms of the Confidentiality Agreement. No information or knowledge obtained in any investigation by Comcast Subsidiary, Comcast Trust or their respective Affiliates pursuant to this Section 7.25(b) shall affect or be deemed to modify any representation or warranty made by Time Warner Cable or its Affiliates hereunder or under any Transaction Document.

Section 7.26 Ordinary Course from Closing to Closing Time.(a) During the time between the Closing and the Closing Time, Comcast Subsidiary and its Affiliates shall operate or cause to be operated the Transferred Systems and Transferred Assets in the usual, regular and ordinary course and shall not take any action for the purpose of changing the calculation of the Closing Adjustment Amount.

CONDITIONS PRECEDENT

Section 8.1 Conditions to the Comcast Parties' Obligations. The obligations of the Comcast Parties to consummate the transactions contemplated by this Agreement shall be subject to the following conditions, which may be waived by Comcast Subsidiary (provided, that the condition set forth in Section 8.1(m) shall not be waived without the prior written consent of Comcast Trust):

(a) Accuracy of Representations and Warranties. The representations and warranties of Time Warner Cable or any Transferring Person in this Agreement and in any Transaction Document to which Time Warner Cable or any Transferring Person is a party, if qualified by a reference to materiality or Material Adverse Effect, are true and, if not so qualified, are true in all material respects at and as of Closing with the same effect as if made at and as of Closing except to the extent a different date is specified therein, in which case such representation and warranty if qualified by a reference to materiality or Material Adverse Effect shall be true and correct as of such date and, if not so qualified, shall be true and correct in all material respects as of such date.

(b) Performance of Agreements. Time Warner Cable, Holdco and each Transferring Person has performed in all material respects all obligations and agreements and has complied in all material respects with all covenants in this Agreement and in any Transaction Document to which it is a party to be performed and complied with by it at or before Closing.

(c) Officer's Certificate. Comcast Subsidiary has received a certificate executed by an executive officer of Time Warner Cable, dated as of Closing, reasonably satisfactory in form and substance to Comcast Subsidiary, certifying that the conditions specified in Sections 8.1(a) and 8.1 (b) have been satisfied, as of Closing.

(d) Legal Proceedings. There is no Legal Requirement, and no Judgment has been entered and not vacated by any Governmental Authority of competent jurisdiction in any Litigation or arising therefrom, which (i) enjoins, restrains, makes illegal or prohibits consummation of the transactions contemplated by this Agreement or by any Transaction Document (other than any such matter having only an immaterial effect and that does not impose criminal liability or penalties) or (ii) requires separation or divestiture by Comcast Trust, Comcast Subsidiary, Holdco or any of their Affiliates of all or any significant portion of the Transferred Assets after Closing or otherwise materially and adversely affects the operation of the Transferred Systems (other than applicable to the cable industry in general), and there is no Litigation pending which was commenced by any Governmental Authority (other than a Franchising Authority) seeking, or which if successful would have the effect of, any of the foregoing, provided

that the failure to obtain a consent relating to a Transferred Systems Franchise shall not be considered to enjoin, restrain, make illegal or prohibit consummation of the transactions contemplated by this Agreement or by any Transaction Document.

(e) HSR Act Waiting Period. The waiting period under the HSR Act with respect to the transactions contemplated by this Agreement has expired or been terminated.

(f) Consents. Comcast Subsidiary has received evidence, in form and substance reasonably satisfactory to it, that all of the Time Warner Cable Required Consents (other than from the Transferred Systems Franchises which are addressed in Section 8.1(h)), have been obtained and are in effect.

(g) Intentionally Omitted.

(h) Franchise Required Consents. The aggregate number of Individual Subscribers served by the Transferred Systems in the Service Areas that are, as of the Closing Time, Transferable Service Areas shall be at least 90% of Individual Subscribers served by the Transferred Systems at such time (the "Required Threshold"); provided that if any portion of the Transferred Systems containing headends are not within such Transferable Service Areas as of the Closing Time, then any other portion of the Transferred Systems served by such headends shall be deemed not to be included in such Transferable Service Areas; provided, further that, if this condition is not satisfied or waived as of the date that all other conditions in Sections 8.1 and 8.2 (except for conditions to be satisfied at Closing that will be satisfied at Closing) have been satisfied or waived, this condition shall be deemed not to have been satisfied until the earlier of (i) the date upon which this condition would be satisfied if the percentage used for the Required Threshold was 100% rather than 90% and (ii) 30 days following the date on which all other conditions in Sections 8.1 and 8.2 (except for conditions to be satisfied at Closing that will be satisfied at Closing) have been satisfied or waived.

(i) GP Redemption and Holdco Transaction. The GP Redemption and the Holdco Transaction shall have been consummated.

(j) Opinion of FCC Counsel. Comcast Subsidiary and Comcast Trust shall have received an opinion of Bryan Cave LLP, special FCC counsel to Time Warner Cable, dated as of Closing, in form and substance reasonably acceptable to Time Warner Cable and Comcast Subsidiary (the "Time Warner Cable FCC Counsel Opinion").

(k) Documents and Records. Time Warner Cable shall have delivered to Holdco all Books and Records. Delivery of the foregoing shall be deemed made to the extent such lists, files and records are then located at any of the offices included in the Owned Property or Leased Property.

(l) Redemption Agreement. The TWC Redemption Agreement shall have been terminated without the closing thereunder occurring.

(m) FCC Approval. Either the transfer of the Holdco Shares to Comcast Subsidiary in the TWC Redemption or the Comcast Subsidiary Transfer shall be permitted under applicable FCC Trust Requirements.

(n) GP Redemption and Amendment Agreement. Each of the parties to the GP Redemption and Amendment Agreement (other than Comcast Trust I) shall have executed and delivered the GP Redemption and Amendment Agreement.

(o) Time Warner Cable Title Policies. Time Warner Cable shall have delivered to Comcast Subsidiary ALTA extended coverage owners' policies of title insurance, or the local equivalent, dated as of the Closing Date and issued by the Title Company (the "Time Warner Cable Title Policies"), insuring, subject only to Permitted Liens, Holdco's fee or leasehold title in each parcel of the Owned Property and Leased Property with respect to which a Title Commitment was required pursuant to Section 7.6 deleting or modifying to the reasonable satisfaction of Comcast Subsidiary the Schedule B standard printed exceptions (other than Permitted Liens, and other than the survey exception or any similar exception with respect to properties for which no survey is obtained, and other than any other exception the deletion of which would require Time Warner Cable to give any affidavit or undertaking which would make representations or impose obligations more onerous than those made or set forth elsewhere in this Agreement), including gap coverage, and deleting or insuring over, subject to Section 7.6, any Title Defects, or irrevocable Title Commitments of the Title Company to issue such Time Warner Cable Title Policies; provided, that Time Warner Cable's inability or failure to provide the Title Policies (or Title Commitments to issue the same) shall not constitute a violation of the condition set forth in this Section 8.1(o) if the Liens, or other matters relating to title, giving rise to such inability would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(p) Tax Matters Agreement. Subject to any amendments pursuant to Section 7.11, Time Warner, Time Warner Cable and Holdco shall have executed and delivered the Tax Matters Agreement substantially in the form attached as Exhibit B.

(q) Schedule Update. Time Warner Cable shall not have exercised its right to update any Schedule to this Agreement pursuant to clause (ii) of the first sentence of Section 7.11.

Section 8.2 Conditions to Time Warner Cable's Obligations. The obligations of Time Warner Cable to consummate the transactions contemplated by this Agreement shall be subject to the following conditions, which may be waived by Time Warner Cable:

(a) Accuracy of Representations and Warranties. The representations and warranties of Comcast Trust and Comcast Subsidiary in this Agreement and in any Transaction Document to which Comcast Trust or Comcast Subsidiary is a party, if qualified by a reference to materiality, are true and, if not so

qualified, are true in all material respects at and as of Closing with the same effect as if made at and as of Closing, except to the extent a different date is specified therein, in which case such representation and warranty if qualified by a reference to materiality shall be true and correct as of such date and, if not so qualified, shall be true and correct in all material respects as of such date.

(b) Performance of Agreements. Each of Comcast Trust and Comcast Subsidiary has performed in all material respects all obligations and agreements and has complied in all material respects with all covenants in this Agreement and in any Transaction Document to which it is a party to be performed and complied with by it at or before Closing.

(c) Officer's Certificate. (i) Time Warner Cable has received a certificate executed by the operating trustee of Comcast Trust, dated as of Closing, reasonably satisfactory in form and substance to Time Warner Cable, certifying that the conditions specified in Sections 8.2(a) and 8.2 (b), in each case solely with respect to Comcast Trust, have been satisfied, as of Closing.
(ii) Time Warner Cable has received a certificate executed by an executive officer of Comcast Subsidiary, dated as of Closing, reasonably satisfactory in form and substance to Time Warner Cable, certifying that the conditions specified in Sections 8.2(a) and 8.2(b), in each case solely with respect to Comcast Subsidiary, have been satisfied, as of Closing.

(d) Legal Proceedings. There is no Legal Requirement, and no Judgment has been entered and not vacated by any Governmental Authority of competent jurisdiction in any Litigation or arising therefrom, which enjoins, restrains, makes illegal or prohibits consummation of the transactions contemplated by this Agreement or by any Transaction Document (other than any such matter having only an immaterial effect and that does not impose criminal liability or penalties), and there is no Litigation pending which was commenced by any Governmental Authority (other than a Franchising Authority) seeking, or which if successful would have the effect of, any of the foregoing, provided that the failure to obtain a consent relating to a Transferred Systems Franchise shall not be considered to enjoin, restrain, make illegal or prohibit consummation of the transactions contemplated by this Agreement or by any Transaction Document.

(e) HSR Act Waiting Period. The waiting period under the HSR Act with respect to the transactions contemplated by this Agreement has expired or been terminated.

(f) Redemption Agreement. The TWC Redemption Agreement shall have been terminated without the closing thereunder occurring.

(g) Tax Matters Agreement. Subject to any amendments pursuant to
Section 7.11, Comcast Parent and Comcast shall have executed and delivered the Tax Matters Agreement substantially in the form attached as Exhibit B.

(h) GP Redemption and Amendment Agreement. Comcast Trust I shall have executed and delivered the GP Redemption and Amendment Agreement.

(i) Option Exercise. Comcast Subsidiary shall have validly exercised the Option prior to 5:00 p.m. (NYT) on the Option Expiration Date.

ARTICLE 9

CLOSING

Section 9.1 Closing; Time and Place. Subject to the final sentence of this Section 9.1, the closing of the transactions contemplated by Section 2.1(b) of this Agreement ("Closing") shall take place at a time and location mutually determined by Comcast Subsidiary and Time Warner Cable on the last Business Day of the calendar month in which all conditions set forth in Sections 8.1 and 8.2 have either been satisfied or waived in writing by the party entitled to the benefit of each such condition (except for conditions to be satisfied at Closing that will be satisfied at Closing), unless such conditions have not been so satisfied or waived (except for conditions to be satisfied at Closing that will be satisfied at Closing) by the fifth Business Day preceding the last Business Day of such calendar month, in which case the Closing shall take place on the last Business Day of the next calendar month (or such later date as agreed by the parties). In no event shall the Closing occur prior to the later of (x) July 1, 2005 or (y) the 30th day following the Option Exercise Date.

Section 9.2 Time Warner Cable's Obligations. At Closing, Time Warner Cable shall deliver or cause to be delivered to Holdco or Comcast Trust (or, in the case of item (a), to Comcast Subsidiary, if applicable), as applicable, the following:

(a) Holdco Shares. The Holdco Shares to Comcast Trust or Comcast Subsidiary, as the case may be, which shall be in definitive form, in proper form for transfer and, if requested by Comcast Trust (or Comcast Subsidiary, if applicable), Time Warner Cable shall execute, acknowledge and deliver a stock power or such other customary instruments of transfer as Comcast Trust (or Comcast Subsidiary, if applicable) may reasonably request.

(b) Bill of Sale and Assignment and the Instrument of Assumption. The executed Bill(s) of Sale and Assignment and Instrument of Assumption with respect to the Holdco Transaction in form and substance reasonably acceptable to Time Warner Cable and Comcast Subsidiary and the executed Bill of Sale and Assignment and Instrument of Assumption with respect to the GP Redemption in substantially the form attached to the GP Redemption and Amendment Agreement, and such other instruments of transfer or assignment as may be reasonably necessary to effect the transactions contemplated hereby (excluding those delivered pursuant to Section 9.2(f)).

(c) Lien Releases. Evidence reasonably satisfactory to Comcast Subsidiary that all Liens (other than Permitted Liens) affecting or encumbering

the Transferred Assets have been terminated, released or waived or insured over as contemplated under (and only to the extent required under) Section 7.6 (in the case of the Real Property Interests), as appropriate, or original, executed instruments in form and substance reasonably satisfactory to Comcast Subsidiary effecting such terminations, releases or waivers; provided, that Time Warner Cable's inability or failure to obtain the termination, release, or waiver of any such Liens or to insure over any such Liens shall not constitute a failure to perform the obligations set forth in this Section 9.2(c) if the existence of the Liens would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(d) FIRPTA Certificate. FIRPTA Non-Foreign Seller Certificate certifying that Time Warner Cable is not a foreign person within the meaning of
Section 1445 of the Code, reasonably satisfactory in form and substance to Comcast Subsidiary.

(e) Power of Attorney for Accounts Receivable. The limited, irrevocable right, in Time Warner Cable's and its Controlled Affiliates' name, place and stead, as Time Warner Cable's and its Controlled Affiliates' attorney-in-fact, to cash, deposit, endorse or negotiate checks received on or after the Closing Date made out to Time Warner Cable and its Controlled Affiliates' in payment for cable services provided by the Transferred Systems and written instructions to Time Warner Cable's and its Controlled Affiliates' lock-box service provider or similar agents to promptly forward to Holdco all such cash, deposits and checks representing accounts receivable of the Transferred Systems that it or they may receive. From and after the Closing, Time Warner Cable and its Controlled Affiliates shall not deposit but shall promptly remit to Holdco any payment received by Time Warner Cable or any of its Controlled Affiliates on or after the Closing Date in respect of any such account receivable.

(f) Deeds and Other Real Estate Transfer Documents. Special warranty deeds conveying to Holdco, subject only to the exceptions reflected on the Time Warner Cable Title Policies (if such Time Warner Cable Title Policies have been obtained, or, if such Time Warner Cable Title Policies have not been obtained, subject only to such exceptions as are consistent with the representation set forth in Section 6.4 hereof), each parcel of the Owned Property, assignments of leases of Real Property and such other documents as may be necessary to convey other Real Property Interests, in each case, in form and substance reasonably satisfactory to Comcast Subsidiary, provided that in no event shall the warranties in such deed create any greater liability or liability to any other Person on the part of the grantor in excess of that provided for under the other provisions of this Agreement.

(g) Time Warner Cable Title Policies. Time Warner Cable Title Policies with such deletions or modifications as are required pursuant to Section 8.1(o).

(h) GP Redemption and Amendment Agreement. The executed GP Redemption and Amendment Agreement by all parties thereto (other than Comcast Trust I).

(i) Tax Matters Agreement. The executed Tax Matters Agreement by all parties thereto (other than Comcast Parent and Comcast).

(j) Officer's Certificate. The executed certificate required by Section 8.1(c).

(k) Other. Such other documents and instruments as may be reasonably necessary to effect the intent of this Agreement and consummate the transactions contemplated hereby.

Section 9.3 Comcast Trust's Obligations. At Closing, Comcast and/or Comcast Trust, as applicable, shall deliver or cause to be delivered to Time Warner Cable the following:

(a) Redemption Securities Stock Certificates. Comcast Trust shall deliver to Time Warner Cable a stock certificate evidencing the Redemption Securities which shall be in definitive form and registered in the name of Comcast Trust, in proper form for transfer and, if requested by Time Warner Cable, execute, acknowledge and deliver a stock power or such other customary instruments of transfer as Time Warner Cable may reasonably request; provided, that upon receipt of the Comcast Trust stock certificate, Time Warner Cable shall reissue Comcast Trust a new stock certificate evidencing the remaining shares of Class A Common Stock owned by Comcast Trust after giving effect to the TWC Redemption.

(b) GP Redemption and Amendment Agreement. The executed GP Redemption and Amendment Agreement by Comcast Trust I.

(c) Tax Matters Agreement. The executed Tax Matters Agreement by all parties thereto (other than Time Warner, Time Warner Cable and Holdco).

(d) Officer's Certificate. The executed certificate required by Section 8.2(c).

(e) Other. Such other documents and instruments as may be reasonably necessary to effect the intent of this Agreement and consummate the transactions contemplated hereby.

ARTICLE 10

TERMINATION AND DEFAULT

Section 10.1 Termination Events. This Agreement may be terminated prior to Closing and the transactions contemplated hereby may be abandoned:

(a) by either Comcast Subsidiary or Time Warner Cable, at any time after the earlier (i) of nine months after the termination of the TWC Redemption Agreement without the Closing (as defined thereunder) occurring and (ii) May 31, 2007 (the earlier of (i) and (ii), the "Outside Closing Date");

(b) at any time, by the mutual agreement of Comcast Subsidiary and Time Warner Cable;

(c) by either Comcast Subsidiary or Time Warner Cable, at any time upon written notice to the other, if the other is in material breach or default of its respective covenants, agreements, representations, or other obligations herein or in any Transaction Document to which such Person or its Affiliates is a party and such breach or default (i) has not been cured within 30 days after receipt of written notice or such longer period as may be reasonably required to cure such breach or default (provided, that the breaching or defaulting party shall be using commercially reasonable efforts to cure such breach or default) or (ii) would not reasonably be expected to be cured prior to the Outside Closing Date; provided, that if any covenant, agreement, representation or other obligation in this Agreement is qualified by a reference to materiality or Material Adverse Effect, such qualifier shall be taken into account without duplication;

(d) automatically without action by any party hereto if the Option shall terminate pursuant to Section 2.1(a)(iii);

(e) by Comcast Subsidiary as provided in Section 12.16;

(f) by Comcast Subsidiary, at any time after April 1, 2005, if by notice to the other parties Comcast Subsidiary irrevocably elects not to exercise the Option; or

(g) automatically without action by any party hereto upon (i) the Closing (as defined in the TWC Redemption Agreement) occurring, (ii) the termination of the TWE Redemption Agreement without the Closing (as defined in the TWE Redemption Agreement) occurring or (iii) the Closing (as defined in the Tolling Agreement) occurring.

Section 10.2 Effects of Termination. If this Agreement is terminated pursuant to Sections 10.1 or 12.16, this Agreement shall become void and of no effect without liability of any party hereto (or any Affiliate, shareholder, director, officer, trustee, employee, agent, consultant or representative of such party) to the other parties hereto, except that (a) the agreements contained in Sections 1.1, 1.2, 2.3 and 7.4, this Section 10.2 and Article 12 (other than Section 12.16) shall survive the termination hereof and (b) no such termination shall relieve any party hereto of any liability or damages resulting from any willful breach by such party of this Agreement.

ARTICLE 11

INDEMNIFICATION

Section 11.1 Indemnification by Time Warner Cable. Subject to Section 11.4, from and after the Closing, Time Warner Cable shall indemnify and hold harmless Holdco from and against any and all Losses suffered by Holdco (which shall be deemed to include any Losses suffered by Holdco or its Affiliates, or by its or their respective officers, directors, trustees, employees, agents or representatives, or any

Person claiming by or through any of them, as the case may be), from and against any and all Losses arising out of or resulting from:

(a) any representations and warranties made by Time Warner Cable or any Transferring Person in this Agreement or in any Transaction Document (other than the Tax Matters Agreement) to which it is a party not being true and accurate in all respects, when made or at Closing (or, in the case of any representation or warranty made as of a specific date, as of such date) or any failure by Time Warner Cable to perform in all material respects pursuant to Sections 7.1(j), 7.11 and 7.20;

(b) any failure by Time Warner Cable, or any Transferring Person or, prior to completion of the Closing, Holdco, to perform in all respects any of its covenants, agreements, or obligations in this Agreement (other than pursuant to Sections 7.1(j), 7.11 and 7.20) or in any Transaction Document (other than the Tax Matters Agreement) to which it is a party;

(c) the Excluded Liabilities;

(d) the Excluded Assets; or

(e) the Holdco Indemnified Liabilities.

If, by reason of the claim of any third party relating to any of the matters subject to such indemnification, a Lien is placed or made upon any of the properties or assets owned or leased by Holdco or any other Indemnitee under this Section, in addition to any indemnity obligation of Time Warner Cable under this Section, Time Warner Cable shall furnish a bond sufficient to obtain the prompt release thereof within 10 days after receipt from Holdco of notice thereof.

Section 11.2 Indemnification by Holdco. Subject to Section 11.4, from and after the Closing, Holdco shall indemnify and hold harmless Time Warner Cable from and against any and all Losses suffered by Time Warner Cable (which shall be deemed to include any Losses suffered by Time Warner Cable or its Affiliates, or by its or their respective officers, directors, employees, agents or representatives, or any Person claiming by or through any of them, as the case may be), from and against any and all Losses arising out of or resulting from:

(a) any representations and warranties made by Comcast Trust or Comcast Subsidiary in this Agreement or in any Transaction Document (other than the Tax Matters Agreement) to which such Person is a party not being true and accurate in all respects, when made or at Closing (or, in the case of any representation or warranty made as of a specific date, as of such date);

(b) any failure by Comcast Trust, Comcast Subsidiary or, after Closing, Holdco, to perform in all respects any of its covenants, agreements, or obligations in this Agreement or in any Transaction Document (other than the Tax Matters Agreement) to which such Person is a Party;

(c) the Assumed Liabilities and the Holdco Transaction Liabilities;

(d) other than with respect to the Excluded Liabilities, the ownership and operation of the Transferred Systems or the Transferred Assets after the Closing;

(e) other than with respect to the Excluded Liabilities, any Transferred Asset or any claim or right or any benefit arising thereunder held by Time Warner Cable for the benefit of Holdco pursuant to Section 2.1(e).

If, by reason of the claim of any third party relating to any of the matters subject to such indemnification, a Lien is placed or made upon any of the properties or assets owned or leased by Time Warner Cable or any other Indemnitee under this Section, in addition to any indemnity obligation of Holdco under this Section, Holdco shall furnish a bond sufficient to obtain the prompt release thereof within 10 days after receipt from Time Warner Cable of notice thereof.

Section 11.3 Procedure for Certain Indemnified Claims. Promptly after receipt by a party entitled to indemnification hereunder (the "Indemnitee") of written notice of the assertion or the commencement of any Litigation with respect to any matter referred to in Sections 11.1 or 11.2 or the assertion by any Governmental Authority of a claim of noncompliance under any Franchise relating, in whole or in part, to any pre Closing period (a "Franchise Matter"), the Indemnitee shall give written notice thereof to the party from whom indemnification is sought pursuant hereto (the "Indemnitor") and thereafter shall keep the Indemnitor reasonably informed with respect thereto; provided, that failure of the Indemnitee to give the Indemnitor notice and keep it reasonably informed as provided herein shall not relieve the Indemnitor of its obligations hereunder, except to the extent that such failure to give notice shall prejudice any defense or claim available to the Indemnitor. The Indemnitor shall be entitled to assume the defense of any such Litigation or Franchise Matter with counsel reasonably satisfactory to the Indemnitee, at the Indemnitor's sole expense; provided that the Indemnitor shall not be entitled to assume or continue control of the defense of any Litigation or Franchise Matter if (i) the Litigation or Franchise Matter relates to or arises in connection with any criminal proceeding, action, indictment, allegation or investigation;
(ii) the Litigation or Franchise Matter seeks an injunction or equitable relief against the Indemnitee; or (iii) the Indemnitor has failed to defend or is failing to defend in good faith the Litigation or Franchise Matter. If the Indemnitor assumes the defense of any Litigation or Franchise Matter, (i) it shall not settle the Litigation or Franchise Matter unless the settlement shall include as an unconditional term thereof the giving by the claimant or the plaintiff of a release of the Indemnitee, reasonably satisfactory to the Indemnitee, from all liability with respect to such Litigation or Franchise Matter and (ii) it shall indemnify and hold the Indemnitee harmless from and against any and all Losses caused by or arising out of any settlement or judgment of such claim and may not claim that it does not have an indemnification obligation with respect thereto. If the Indemnitor does not assume the defense of any Litigation or Franchise Matter, the Indemnitee may defend against or settle such claim in such manner and on such terms as it in good faith deems appropriate

and shall be entitled to indemnification in respect thereof in accordance with Section 11.1 or 11.2, as applicable. If the Indemnitor is not entitled to assume the defense or continue to control the defense of any Litigation or Franchise Matter as a result of the proviso in the second sentence of this Section 11.3, the Indemnitee shall not settle the Litigation or Franchise Matter in question if the Indemnitor shall have any obligation as a result of such settlement (whether monetary or otherwise) unless such settlement is consented to in writing by the Indemnitor, such consent not to be unreasonably withheld or delayed. In no event shall the Indemnitee settle any Litigation or Franchise Matter for which the defense thereof is controlled by the Indemnitor absent the consent of the Indemnitor (such consent not to be unreasonably withheld or delayed). Each party shall cooperate, and cause their respective Affiliates to cooperate, in the defense or prosecution of any Litigation or Franchise Matter and shall furnish or cause to be furnished such records, information and testimony, and attend such conferences, discovery proceedings, hearings, trials or appeals, as may be reasonably requested in connection therewith.

Section 11.4 Determination of Indemnification Amounts and Related Matters.

(a) Time Warner Cable shall have no liability under Section 11.1(a) unless the aggregate amount of Losses otherwise subject to its indemnification obligations thereunder exceeds $5 million (the "Threshold Damage Requirement"), in which case Time Warner Cable shall be liable for the full amount of such Losses including the Losses incurred in reaching the Threshold Damage Requirement; provided, that for purposes of this subsection, the Threshold Damage Requirement shall not apply to any Losses resulting from or arising out of (i) the failure by Time Warner Cable to pay any copyright payments, including interest and penalties thereon, when due or any other breach of Time Warner Cable's representations, warranties, covenants or agreements with respect to copyright payments contained in this Agreement, and (ii) breaches of the representations and warranties in Sections 6.1, 6.2, 6.3, 6.4(a), 6.13, 6.15 and 6.18. The maximum liability of Time Warner Cable under Section 11.1(a) shall not exceed $50 million (the "Cap"); provided, that the Cap shall not apply to breaches of the representations and warranties in Sections 6.1, 6.2, 6.3, 6.4(a)(i), 6.13, 6.15 and 6.18.

(b) Holdco shall have no liability under Section 11.2(a) unless the aggregate amount of Losses otherwise subject to its indemnification obligations thereunder exceeds the Threshold Damage Requirement, in which case Holdco shall be liable for the full amount of such Losses including the Losses incurred in reaching the Threshold Damage Requirement; provided, that for purposes of this subsection, the Threshold Damage Requirement shall not apply to any Losses resulting from or arising out of breaches of the representations and warranties in Sections 4.1, 4.2, 4.3, 4.5, 4.6, 5.1, 5.2, 5.3, or 5.5. The maximum liability of Holdco in the aggregate under Section 11.2(a) shall not exceed the Cap; provided, that the Cap shall not apply to breaches of the representations and warranties in Sections 4.1, 4.2, 4.3, 4.5, 4.6, 5.1, 5.2, 5.3, or 5.5.

(c) Amounts payable by the Indemnitor to the Indemnitee in respect of any Losses under Sections 11.1 or 11.2 shall be payable by the Indemnitor as incurred by the Indemnitee, and shall bear interest at the Base Interest Rate plus 2% from

the date the Losses for which indemnification is sought were incurred by the Indemnitee until the date of payment of indemnification by the Indemnitor.

(d) If the facts and circumstances giving rise to the Loss for which indemnification is sought under Section 11.1(a) also resulted in a Loss to the Time Warner Cable Retained Cable Systems, the Loss for which indemnification is sought under Section 11.1(a) shall only be available (subject to the further limitations in Section 11.4(a)) to the extent such Loss is greater than the proportionate Loss suffered by the Time Warner Cable Retained Cable Systems and the Transferred Systems, where proportionality is based on the percentage that the Redemption Securities represent to the total number of outstanding shares of common stock of Time Warner Cable, in each case immediately prior to giving effect to the Closing; provided that the foregoing shall not apply to the extent the Loss for which indemnification is sought under Section 11.1(a) results from or arises out of a breach of any of the representations and warranties set forth in Sections 6.1, 6.2, 6.3, 6.4(a), 6.5(a), 6.6 (the penultimate sentence only),
6.10 (the first sentence only), 6.12(c), 6.13, 6.15 and 6.18. By way of example only, if the Redemption Securities represent 20% of the total number of outstanding shares of common stock of Time Warner Cable (immediately prior to giving effect to the Closing) and the Losses suffered by the Transferred Systems arising out of certain facts was $X and the Losses suffered by the Time Warner Cable Retained Cable Systems arising out of those same facts was $Y, then indemnification would be available under Section 11.1(a) but only in an amount equal to the excess (if any) of (i) $X over (ii) the sum of $X and $Y multiplied by 0.2 (and subject to the further limitations contained in Section 11.4 (a)).

(e) The Indemnitor shall not be obligated to indemnify the Indemnitee with respect to any Losses to the extent of any proceeds received in connection with any such Losses by the Indemnitee under any insurance policy of the Indemnitee in effect on the Closing Date (including under any rights under any insurance policies or proceeds that are part of the Transferred Assets). The Indemnitee will use commercially reasonable efforts to claim and recover under such insurance policies.

(f) In determining the amount of any Losses in connection with any inaccuracy of a representation and warranty (but not for purposes of determining whether any such inaccuracy has occurred), any materiality or Material Adverse Effect qualifier in such representation or warranty will be disregarded.

(g) Comcast Subsidiary shall have the right to enforce (on behalf and for the benefit of Holdco and any other Indemnitee pursuant to Section 11.1) the right to indemnification under Section 11.1. Notwithstanding anything to the contrary set forth in this Agreement, to the extent that any Indemnitee pursuant to Section 11.1 is or becomes a shareholder of Time Warner Cable or Time Warner or a limited partner of TWE, indemnification hereunder shall not include Losses suffered by such Indemnitee (or its Affiliates) in its shareholder or limited partner capacity by reason of (i) the indemnities being provided by Time Warner Cable hereunder or (ii) Losses suffered in such capacity in respect of any Excluded Assets, Excluded Liabilities or Holdco Indemnified Liabilities.

Section 11.5 Time and Manner of Certain Claims. The representations and warranties of Comcast Trust, Comcast Subsidiary, Time Warner Cable or any Transferring Person in this Agreement and any Transaction Document to which such Person is a party shall survive Closing for a period of 1 year; provided, that the representations in Section 6.24 shall not survive Closing. Notwithstanding the foregoing: (a) the liability of the parties shall extend beyond the 1-year period following Closing with respect to any claim which has been asserted in a bona fide written notice before the expiration of such 1-year period specifying in reasonable detail the facts and circumstances giving rise to such right; and (b) (i) the representations and warranties of the parties in Sections 4.1, 4.2, 4.3, 4.5, 4.6, 5.1, 5.2, 5.3, 5.5, 6.1, 6.2, 6.3, 6.4(a)(i), 6.13, 6.15 and 6.18 shall survive Closing and shall continue in full force and effect without limitation and (ii) the representations and warranties of Time Warner Cable in Sections 6.22 and 6.23 shall survive until the expiration of the applicable statute of limitations (giving effect to any waiver, mitigation or extension thereof).

Section 11.6 Other Indemnification. The provisions of Sections 11.3, 11.4 and 11.5 shall be applicable to any claim for indemnification made under any other provision of this Agreement, and all references in Sections 11.3, 11.4 and 11.5 to Sections 11.1 and 11.2 shall be deemed to be references to such other provisions of this Agreement.

Section 11.7 Exclusivity. Except as specifically set forth in this Agreement or any Transaction Document and except for claims against a party for breach of any provision of this Agreement or any Transaction Document, each party waives any rights and claims it may have against the other parties to this Agreement, whether in law or in equity, relating to the transactions contemplated hereby. The rights and claims waived by each party include claims for contribution or other rights of recovery arising out of or relating to claims for breach of contract, breach of representation or warranty, negligent misrepresentation and all other claims for breach of duty. After Closing, Article 11 and the Transaction Documents shall provide the exclusive remedy for any misrepresentation or breach of warranty under this Agreement or any Transaction Document, other than any claims sounding in fraud.

Section 11.8 Release.

(a) Except as provided in Section 11.8(b), effective as of the Closing, each of Comcast, Comcast Subsidiary and Comcast Trust does hereby, for itself and each of its wholly owned Subsidiaries and their respective successors and assigns, and all Persons who at any time prior to the Closing have been shareholders, directors, officers, members, agents, trustees or employees of Comcast, Comcast Subsidiary or Comcast Trust or any of their respective Affiliates, predecessors, successors or assigns (in each case, in their respective capacities as such and to the extent it may legally do so) (collectively, the "Comcast Trust Releasing Parties"), remise, release and forever discharge Time Warner Cable and each of its Subsidiaries and Affiliates, their respective predecessors, successors and assigns, and all Persons who at any time prior to the Closing have been shareholders, directors, officers, members, agents, trustees or employees of Time Warner Cable or any of its respective Subsidiaries, Affiliates, predecessors,

successors or assigns (in each case, in their respective capacities as such and to the extent it may legally do so), and their respective heirs, executors, administrators, predecessors, successors and assigns (collectively, the "Time Warner Cable Released Parties"), from any and all Liabilities whatsoever (other than Liabilities based on claims sounding in fraud), whether at law or in equity (including any right of contribution), whether arising under any Contract, by operation of Law or otherwise, existing or arising from any acts or events occurring or failing to occur or alleged to have occurred or to have failed to occur or any conditions existing or alleged to have existed on or before the Closing, whether or not known as of the Closing, related to, arising out of or resulting from Comcast Trust's ownership of the Redemption Securities. Comcast, Comcast Subsidiary and Comcast Trust agree, on behalf of their self and each of the other Comcast Trust Releasing Parties, that they will not assert any claims against any Time Warner Cable Released Party with respect to matters covered by the foregoing release.

(b) Nothing contained in Section 11.8(a) shall impair any right of any Person to enforce this Agreement or any other Transaction Document, in each case in accordance with its terms.

Section 11.9 Indemnification for Income Taxes. Notwithstanding any other provision of this Agreement, the provisions of Sections 11.1 through 11.8 shall not apply to any Liability for Income Taxes, which shall be governed exclusively by the Tax Matters Agreement. For the avoidance of doubt, rights under this Agreement shall provide the exclusive remedies for any breach of the representations and warranties provided in Section 6.24 hereof.

Section 11.10 Tax Treatment of Indemnification Payments.

(a) For all Tax purposes (unless required by a change in applicable Tax law or a good faith resolution of a contest) the parties hereto agree to treat and to cause their respective affiliates to treat any payment (i) to Holdco by Time Warner Cable pursuant to an indemnification, reimbursement or refund obligation provided for in this Agreement (a "Time Warner Cable Indemnification Payment"), or (ii) to Time Warner Cable by Holdco pursuant to an indemnification, reimbursement or refund obligation provided for in this Agreement (a "Holdco Indemnification Payment" and collectively with any Time Warner Cable Indemnification Payment, an "Indemnification Payment") as (x) with respect to a Time Warner Cable Indemnification Payment, a contribution by Time Warner Cable to Holdco occurring immediately prior to the Closing, and (y) with respect to a Holdco Indemnification Payment, an adjustment to the Cash Amount transferred by Time Warner Cable to Holdco pursuant to the Holdco Transaction occurring immediately prior to the Closing.

(b) Notwithstanding Section 11.10(a) above, any Indemnification Payments that represent interest payable under Section 11.4(c) hereof shall be treated for all Tax purposes (unless required by a change in applicable Tax law or a good faith resolution of a contest), as (i) deductible to the Indemnitor and (ii) taxable to the Indemnitee.

(c) The amount of any Loss for which indemnification is provided under this Agreement shall be (i) increased to take account of net Tax cost, if any, incurred by the Indemnitee arising from the receipt or accrual of an Indemnification Payment hereunder, (grossed up for such increase) and (ii) reduced to take account of the net Tax benefit, if any, realized by the Indemnitee arising from incurring or paying such indemnified amount. In computing the amount of any such Tax cost or benefit, (i) the term Indemnitee shall be deemed to include any member of any Affiliated Group of which the Indemnitee is a member, and (ii) the Indemnitee shall be deemed to recognize all other items of income, gain, loss, deduction or credit before recognizing any item arising from the receipt or accrual of any Indemnification Payment hereunder or incurring or paying any indemnified amount hereunder. Any Indemnification Payment hereunder shall initially be made without regard to this Section 11.10(c) and shall be increased or reduced to reflect any such net Tax cost (including gross-up) or net Tax benefit only after the Indemnitee has Actually Realized such cost or benefit. The amount of any increase or reduction hereunder shall be adjusted to reflect any adjustment with respect to the Indemnitee's liability for Taxes, and payments between the parties hereto to reflect such adjustment shall be made. Notwithstanding the above, this Section 11.10(c) shall not apply to interest as described in Section 11.10(b).

Section 11.11 Guaranteed Obligations of Comcast.

(a) From and after the Closing, Comcast hereby agrees to fully and unconditionally guarantee to Time Warner Cable the due and punctual performance, compliance and payment of Holdco, Comcast Trust and Comcast Subsidiary (each, a "Guaranteed Party" and collectively, the "Guaranteed Parties") of each and every covenant, term, condition or other obligation to be performed or complied with by any such party for the benefit of Time Warner Cable (or any Affiliate thereof or any Indemnitee pursuant to Section 11.2) under this Agreement and any Transaction Document to which any Guaranteed Party is a party delivered in connection herewith when, and to the extent that, any of the same shall become due and payable or performance of or compliance with any of the same shall be required (collectively, the "Guaranteed Obligations").

(b) Comcast hereby acknowledges and agrees that this guarantee constitutes an absolute, present, primary, continuing and unconditional guaranty of performance, compliance and payment by each of the Guaranteed Parties of the Guaranteed Obligations when due under this Agreement and any Transaction Document to which any Guaranteed Party is a party delivered in connection herewith and not of collection only and is in no way conditioned or contingent upon any attempt to enforce such performance, compliance or payment by a Guaranteed Party or upon any other condition or contingency. Comcast hereby waives any right to require a proceeding first against any of the Guaranteed Parties.

(c) The obligations of Comcast under this guarantee shall not be subject to any reduction, limitation, impairment or termination for any reason (other than by indefeasible payment or performance in full of any of the Guaranteed Obligations) and shall not be subject to (i) any discharge of any of the Guaranteed Parties

from any of the Guaranteed Obligations in a bankruptcy or similar proceeding (except by indefeasible payment or performance in full of the Guaranteed Obligations) or (ii) any other circumstance whatsoever which constitutes, or might be construed to constitute an equitable or legal discharge of Comcast as guarantor under this Section 11.11.

(d) Comcast shall cause any transferee of or successor to all or substantially all of the assets of Comcast to assume Comcast's obligations under this Section 11.11.

ARTICLE 12

MISCELLANEOUS PROVISIONS

Section 12.1 Expenses. Except as otherwise specifically provided in Sections 3.4, 7.3 or 12.2 or elsewhere in this Agreement, each of the parties shall pay its own expenses and the fees and expenses of its counsel, accountants, and other experts in connection with this Agreement.

Section 12.2 Attorneys' Fees. If any Litigation between the parties hereto with respect to this Agreement, the Transaction Documents or the transactions contemplated hereby or thereby shall be resolved or adjudicated by a Judgment of any court, the party prevailing under such Judgment (as determined by the trier of fact based on all relevant facts, including, but not limited to, amounts demanded or sought in such litigation, amounts, if any, offered in settlement of such litigation and amounts, if any, awarded in such litigation) shall be entitled, as part of such Judgment, to recover from the other party its reasonable attorneys' fees and costs and expenses of litigation.

Section 12.3 Waivers. No action taken pursuant to this Agreement, including any investigation by or on behalf of any party hereto, shall be deemed to constitute a waiver by the party taking the action of compliance with any representation, warranty, covenant or agreement contained herein or in any Transaction Document. The waiver by any party hereto of any condition or of a breach of another provision of this Agreement or any Transaction Document shall be in writing and shall not operate or be construed as a waiver of any other condition or subsequent breach. The waiver by any party of any of the conditions precedent to its obligations under this Agreement shall not preclude it from seeking redress for breach of this Agreement other than with respect to the condition so waived.

Section 12.4 Notices. All notices, requests, demands, applications, services of process and other communications which are required to be or may be given under this Agreement or any Transaction Document shall be in writing and shall be deemed to have been duly given if sent by telecopy or facsimile transmission, upon answer back requested, or delivered by courier or mailed, certified first class mail, postage prepaid, return receipt requested, to the parties at the following addresses:

To Comcast or Holdco (after the Closing):

Comcast Cable Communications Holdings, Inc.
1500 Market Street
Philadelphia, PA 19102-2184
ATTN: General Counsel
Fax: (215) 981-7794

With a Required Copy to:

Davis Polk & Wardwell
450 Lexington Avenue
New York, NY 10017
ATTN: Dennis S. Hersch
William L. Taylor
Fax: (212) 450--4800

To Comcast Subsidiary:

MOC Holdco II, Inc.
1201 N. Market Street
Suite 1405
Wilmington, DE 19801
ATTN: President
Fax: (302) 658-1600

With a Required Copy to:

Davis Polk & Wardwell
450 Lexington Avenue
New York, NY 10017
ATTN: Dennis S. Hersch
William L. Taylor
Fax: (212) 450--4800

To Comcast Trust:

TWE Holdings II Trust
c/o Edith E. Holiday
801 West Street
2nd Floor
Wilmington, DE 19801
Fax: (302) 428--1410

With a Required Copy to:

Hogan & Hartson
111 South Calvert Street
Baltimore, MD 21202

ATTN: Michael J. Silver
Fax: (410) 539-6981

To Time Warner Cable or Holdco (prior to the Closing):

c/o Time Warner Cable Inc.
290 Harbor Drive
Stamford, CT 06902--6732
ATTN:Chief Executive Officer
Fax: (203) 328-3295

With Required Copies to:

Legal Department
Time Warner Cable Inc.
290 Harbor Drive
Stamford, CT 06902-6732
ATTN:General Counsel
Fax: (203) 328-4094

Paul, Weiss, Rifkind, Wharton & Garrison LLP
1285 Avenue of the Americas
New York, NY 10019
ATTN: Kelley D. Parker
Robert B. Schumer
Fax: (212) 757-3990

or to such other address as any party shall have furnished to the other, by notice given in accordance with this Section. Such notice shall be effective,
(i) if delivered in person or by courier, upon actual receipt by the intended recipient, (ii) if sent by telecopy or facsimile transmission, upon confirmation of transmission received, or (iii) if mailed, upon the date of delivery as shown by the return receipt therefor.

Section 12.5 Entire Agreement; Prior Representations; Amendments. This Agreement, the Confidentiality Agreements (subject to the last sentence of this
Section 12.5) and the Transaction Documents executed concurrent herewith embody the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior representations, agreements and understandings, oral or written, with respect thereto. Notwithstanding any representations which may have been made by either party in connection with the transactions contemplated by this Agreement, each party acknowledges that it has not relied on any representation by the other party with respect to such transactions, the Transferred Assets, or the Transferred Systems except those contained in this Agreement, the Schedules or the Exhibits hereto. This Agreement may not be modified orally, but only by an agreement in writing signed by the party or parties against whom any waiver, change, amendment, modification or discharge may be sought to be enforced. The Confidentiality Agreements, as each relates to any obligation to keep confidential

information regarding the Transferred Assets, the Transferred Systems and/or the Assumed Liabilities are hereby terminated. The Alternate Transaction Letter shall terminate on May 31, 2005.

Section 12.6 Specific Performance. The parties recognize that their rights under this Agreement are unique and, accordingly, the parties shall, in addition to such other remedies as may be available to any of them at law or in equity, have the right to enforce their rights hereunder by actions for injunctive relief and specific performance to the extent permitted by applicable law so long as the party seeking such relief is prepared to consummate the transactions contemplated hereby. The parties agree that monetary damages would not be adequate compensation for any loss incurred by reason of a breach of the provisions of this Agreement and hereby agree to waive the defense in any action for specific performance that a remedy at law would be adequate. The parties waive any requirement for security or the posting of any bond or other surety in connection with any temporary or permanent award or injunctive, mandatory or other equitable relief.

Section 12.7 Jurisdiction. Except as otherwise expressly provided in this Agreement, the parties hereto agree that any suit, action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with, this Agreement, the Transaction Documents or the transactions contemplated hereby or thereby may be brought in the United States District Court for the Southern District of New York or any other New York State court sitting in New York City, and each of the parties hereby consents to the jurisdiction of such courts (and of the appropriate appellate courts therefrom) in any such suit, action or proceeding and irrevocably waives, to the fullest extent permitted by law, any objection which it may now or hereafter have to the laying of the venue of any such suit, action or proceeding in any such court or that any such suit, action or proceeding which is brought in any such court has been brought in an inconvenient forum. Process in any such suit, action or proceeding may be served on any party anywhere in the world, whether within or without the jurisdiction of any such court. Without limiting the foregoing, each party agrees that service of process on such party as provided in Section 12.4 shall be deemed effective service of process on such party.

Section 12.8 WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHTS TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT, THE TRANSACTION DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

Section 12.9 Binding Effect; Benefits. This Agreement shall inure to the benefit of and shall be binding upon the parties hereto and their respective heirs, legal representatives, successors, and permitted assigns. No party hereto shall assign this Agreement or delegate any of its duties hereunder to any other Person without the prior written consent of the other parties hereto, which consent shall not be unreasonably withheld or delayed; provided that Comcast Subsidiary may assign its rights and delegate its obligations under this Agreement (in whole or in part) to any Affiliate of Comcast Subsidiary, upon written notice to Time Warner Cable. For

purposes of this Section, any change in control of Comcast, Comcast Trust, Comcast Subsidiary or Time Warner Cable shall not constitute an assignment by it of this Agreement. In no event shall any assignment of rights or delegation of obligations relieve any party of its obligations hereunder.

Section 12.10 Headings and Schedules. The section and other headings contained in this Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Agreement. Reference to Schedules shall, unless otherwise indicated, refer to the Schedules attached to this Agreement, which shall be incorporated in and constitute a part of this Agreement by such reference.

Section 12.11 Counterparts. This Agreement may be executed in any number of counterparts (including by facsimile), each of which, when executed, shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument.

Section 12.12 GOVERNING LAW. THE VALIDITY, PERFORMANCE, AND ENFORCEMENT OF THIS AGREEMENT AND ALL TRANSACTION DOCUMENTS, UNLESS EXPRESSLY PROVIDED TO THE CONTRARY, SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK, WITHOUT GIVING EFFECT TO THE PRINCIPLES OF CONFLICTS OF LAW OF SUCH STATE.

Section 12.13 Severability. Any term or provision of this Agreement which is invalid or unenforceable shall be ineffective to the extent of such invalidity or unenforceability without rendering invalid or unenforceable the remaining rights of the Person intended to be benefited by such provision or any other provisions of this Agreement.

Section 12.14 Third Parties; Joint Ventures. This Agreement constitutes an agreement solely among the parties hereto, and, except as otherwise expressly provided herein, is not intended to and shall not confer any rights, remedies, obligations, or liabilities, legal or equitable, including any right of employment, on any Person other than the parties hereto and their respective successors, or assigns, or otherwise constitute any Person a third party beneficiary under or by reason of this Agreement except that Time Warner shall be an express third party beneficiary of Section 2.3. For the avoidance of doubt, no Person other than a party hereto shall have any right to enforce Section 3.1 or any other provision of this Agreement to the extent relating thereto. Nothing in this Agreement, expressed or implied, is intended to or shall constitute the parties hereto partners or participants in a joint venture.

Section 12.15 Construction. This Agreement has been negotiated by Comcast Trust, Comcast Subsidiary and Time Warner Cable and their respective legal counsel, and legal or equitable principles that might require the construction of this Agreement or any provision of this Agreement against the party drafting this Agreement shall not apply in any construction or interpretation of this Agreement.

Section 12.16 Risk of Loss; Governmental Taking.

(a) Time Warner Cable shall bear the risk of any loss or damage to the Transferred Assets resulting from fire, theft or other casualty (except reasonable wear and tear) at all times prior to the Closing. In the event any such loss or damage occurs, Time Warner Cable shall (at its expense) use its commercially reasonable efforts to replace or restore such lost or damaged property as soon as practicable and in any event prior to Closing (or, if such damaged property is not replaced or restored prior to Closing, Time Warner shall indemnify Holdco for any Losses arising out of such unrepaired damage or unrestored property). If any loss or damage is equal to or greater than $50,000,000 and is sufficiently substantial so as to preclude and prevent resumption of normal operations of any material portion of a Transferred System by the Outside Closing Date, Time Warner Cable shall, to the extent reasonably practical, immediately notify Comcast Subsidiary in writing of that fact (which notice shall, to the extent reasonably practical, specify with reasonable particularity the loss or damage incurred, the cause thereof if known or reasonably ascertainable, and the insurance coverage related thereto), and Comcast Subsidiary, at any time within 10 days after receipt of such notice, may elect by written notice to Time Warner Cable, to either (i) waive such defect and proceed toward consummation in accordance with the terms of this Agreement (provided that any such waiver shall also be deemed to be a waiver of any right to indemnification pursuant to the first sentence of this Section 12.16(a) or pursuant to Section 11.1 for any breach of any (x) representation or warranty of Time Warner Cable set forth in Article 6 resulting from any such loss or damage or (y) covenant hereunder to the extent that compliance therewith is frustrated or made commercially impracticable as a result of such loss or damage) or (ii) terminate this Agreement, subject to Section 10.2. If Comcast Subsidiary elects to so terminate this Agreement, Time Warner Cable shall be discharged of any and all obligations hereunder, subject to Section 10.2. If Comcast Subsidiary elects to consummate the transactions contemplated by this Agreement notwithstanding such loss or damage and does so, there shall be no adjustment in the consideration payable to or by Transferee on account of such loss or damage, but all insurance proceeds received or receivable by Time Warner Cable or its Affiliates (determined on an effective after-tax basis as if TWE is instead of being partnership, a stand-alone corporation) as a result of the occurrence of the event resulting in such loss or damage (to the extent not already expended by Time Warner Cable or its Affiliates to restore or replace the lost or damaged Transferred Assets), except for any proceeds from business interruption insurance relating to the loss of revenue for any period through and including the Closing Date, shall be delivered by Time Warner Cable or its Affiliates to Holdco, or the rights to such proceeds shall be assigned by Time Warner Cable or its Affiliates to Holdco if not yet received by Time Warner Cable or its Affiliates. Time Warner Cable shall pay any deductible required and/or the self-insured portion of any such loss with respect to all such insurance proceeds payable under any insurance policy held by Time Warner Cable or its Affiliates. Any amounts received or receivable hereunder shall not be included in the Closing Net Liabilities Amount.

(b) If, prior to Closing, any material part of or interest in the Transferred Assets is taken or condemned as a result of the exercise of the power of eminent domain, or if a Governmental Authority having such power informs Time

Warner Cable or any of its Affiliates that it intends to condemn or take all or any of the Transferred Assets (such event being called, in either case, a "Taking"), then Comcast Subsidiary may terminate this Agreement. If Comcast Subsidiary does not elect to terminate this Agreement, (i) Comcast Subsidiary shall have the sole right, in the name of Time Warner Cable and its Affiliates, if Comcast Subsidiary so elects, to negotiate for, claim, contest and subject to the Closing occurring, and have Holdco receive all damages with respect to the Taking, (ii) Time Warner Cable shall be relieved of its obligation to convey to Holdco the Transferred Assets or interests that are the subject of the Taking if the Taking has occurred (but, subject to the Closing occurring, shall convey to Holdco any interest therein still held by Time Warner Cable or its Affiliates and any replacement property acquired by Time Warner Cable or its Affiliates),
(iii) at Closing, Time Warner Cable and its Affiliates shall assign to Holdco all of Time Warner Cable's and its Affiliates' rights to all payments received or receivable by Time Warner Cable or its Affiliates (determined on an effective after-tax basis as if TWE is, instead of being a partnership, a stand-alone corporation), with respect to such Taking and shall pay to Holdco all such payments previously paid to Time Warner Cable or any of its Affiliates with respect to the Taking (to the extent not already expended by Time Warner Cable or its Affiliates to restore or replace the taken Assets), and (iv) following Closing, Time Warner Cable and its Affiliates shall give Holdco such further assurances of such rights and assignment with respect to the Taking as Holdco may from time to time reasonably request. Any amounts received or receivable hereunder shall not be included in the Closing Net Liabilities Amount.

Section 12.17 Commercially Reasonable Efforts. For purposes of this Agreement, "commercially reasonable efforts" shall not, with regard to obtaining any consent, approval or authorization, be deemed to require a party to undertake extraordinary measures, including the initiation or prosecution of legal proceedings or the payment of amounts in excess of normal and usual filing fees and processing fees, if any.

Section 12.18 Time. Time is of the essence under this Agreement. If the last day for the giving of any notice or the performance of any act required or permitted under this Agreement is a day that is not a Business Day, the time for the giving of such notice or the performance of such act shall be extended to the next succeeding Business Day.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the undersigned have executed, or have caused to be executed, this Agreement on the date first written above.

COMCAST CABLE COMMUNICATIONS HOLDINGS, INC.

By: /s/ Robert S. Pick
Name: Robert S. Pick
Title: Senior Vice President

MOC HOLDCO II, INC.

By: /s/ James P. McCue
Name: James P. McCue
Title: President

TWE HOLDINGS II TRUST

By: /s/ Edith E. Holiday
Name: Edith E. Holiday, solely in her capacity as Operating Trustee

CABLE HOLDCO INC.

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

TIME WARNER CABLE INC.

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

TWE HOLDING I LLC

By: /s/ Satish Adige
Name: Satish Adige
Title: SVP, Investments

Solely for purposes of Section 2.3 and the last sentence of Section 12.5:

COMCAST CORPORATION

By: /s/ Robert S. Pick
Name: Robert S. Pick
Title: Senior Vice President

Solely for purposes the last sentence of Section 12.5:

TIME WARNER INC.

By: /s/ Robert Marcus
Name: Robert Marcus
Title: SVP

Solely for purposes of Section 2.1(b)(iv):

TWE HOLDINGS I TRUST

By: /s/ Edith E. Holiday

Name: Edith E. Holiday, solely in her capacity as Operating Trustee

EXHIBIT 31.1

CERTIFICATIONS

I, Richard D. Parsons, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Time Warner Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2005

By: /s/ Richard D. Parsons

Name: Richard D. Parsons
Title: Chief Executive Officer
Time Warner Inc.

EXHIBIT 31.2

CERTIFICATIONS

I, Wayne H. Pace, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Time Warner Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2005

By: /s/ Wayne H. Pace

Name: Wayne H. Pace
Title: Chief Financial Officer
Time Warner Inc.

EXHIBIT 32

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Time Warner Inc., a Delaware corporation (the "Company"), for the quarter ended June 30, 2005, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his respective knowledge:

1. the Report fully complies, in all material respects, with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 3, 2005

/s/ Richard D. Parsons

Richard D. Parsons
Chief Executive Officer
Time Warner Inc.

Date: August 3, 2005

/s/ Wayne H. Pace

Wayne H. Pace
Chief Financial Officer
Time Warner Inc.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-39)
Blessing CV

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-39

CV of David C. Blessing

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 47
Company/ Alltel
Witness: David C. Blessing (DCB-39)
Date: 12/01/05

David C. Blessing
Parrish, Blessing & Associates, Inc.
Economic Consultants

10905 Ft. Washington Road, Ste 307
Ft. Washington, MD 20744
301-203-4830

Professional Experience

Parrish, Blessing & Associates, Inc. - Economic Consultants, Ft. Washington, MD

Principal (February 1993 to Present)

Klick, Kent & Allen, Inc., Alexandria Va.

Consultant (June 1991 to February 1993)

Rochester Telephone Corporation, Rochester New York

Senior Economist (January 1988 to June 1991)

Nazareth College of Rochester, Rochester, New York

Assistant Professor - Department of Business (1986 to 1988)

Control Data Corporation, Minneapolis, Minnesota

Credit Analyst (1980 to 1982)

Education

M.A. Economics, Fordham University, New York, New York
B.A. Liberal Arts, Kalamazoo College, Kalamazoo, Michigan
Completed all requirements towards Ph.D. in Economics except dissertation at Fordham University.

Selected Testimony and Proceedings

Before the Regulatory Commission of Alaska:

In the Matter of the Investigation of the Local Exchange Revenue Requirement, Depreciation, Cost of Service and Rate Design Studies Filed by ACS of Anchorage, Inc. d/b/a Alaska Communications Systems, ACS Local Service and ACS, Case U-01-34. August 2001.

In the Matter of the Investigation of the Local Exchange Revenue Requirement, Depreciation, Cost of Service and Rate Design Studies Filed by ACS of Fairbanks, Inc. d/b/a Alaska Communications Systems, ACS Local Service and ACS, Case U-01-83. Expert Testimony on the Appropriate Cost of Capital, August 2001.

In the Matter of the Investigation of the Local Exchange Revenue Requirement, Depreciation, Cost of Service and Rate Design Studies Filed by ACS of Alaska, Inc. d/b/a Alaska Communications Systems, ACS Local Service and ACS, Case U-01-85. Testimony on the Appropriate Cost of Capital, August 2001.

In the Matter of the Investigation of the Local Exchange Revenue Requirement, Depreciation, Cost of Service and Rate Design Studies Filed by ACS of the Northland, Inc. d/b/a Alaska Communications Systems, ACS Local Service and ACS, Case U-01-87. August 2001.

In the Matter of the Petition by GCI Communications Corp. d/b/a General Communication, Inc., and d/b/a GCI for Arbitration under Section 252 of the Telecommunications Act of 1996 with the Municipality of Anchorage d/b/a Anchorage Telephone Utility a/k/a ATU Telecommunications for the Purpose of Instituting Local Exchange Competition. Case U-96-89. Expert Testimony, February 2002 and August 2003. Final Hearing: November 2003

In the Matter of the Petition by GCI Communications Corp. d/b/a General Communication, Inc., and d/b/a GCI for Termination of Rural Exemption and Arbitration withPTI Communications of Alaska Inc, under 47 U.S.C..§§ 251 and 252 fo the Purpose of Instituting Local Exchange Competition. Case U-97-82. Expert Testimony, March 2004.

In the Matter of the Petition by GCI Communications Corp. d/b/a General Communication, Inc., and d/b/a GCI for Termination of Rural Exemption and Arbitration with Telephone Utilities of Alaska Inc, under 47 U.S.C..§§ 251 and 252 fo the Purpose of Instituting Local Exchange Competition. Cases U-97-82 and U-97-143. Expert Testimony, March 2004.

Before the Arkansas Public Service Commission

In the Matter of Joint Application by SBC Communications Inc., Southwestern Bell Telephone Company, L.P. d/b/a SBC Arkansas to Set Rates for Unbundled Network Elements, CC Docket No. 04-109-U, Expert Reply Testimony, May 27, 2005.

Before the Georgia Public Service Commission:

Universal Access Fund, Transition to Phase II Under O.C.G.A. Section 46-5-167, Docket No.5825-U, Expert Testimony, July 2000.

Before the State Corporation Commission of Kansas:

In the Matter of an Audit and General Rate Investigation of S&A Telephone Company, Docket No. 03-S&AT-160-AUD, Expert Testimony, March 2003.

Before the Public Service Commission of the Commonwealth of Kentucky

In the Matter of an Inquiry into the Development of De-Averaged Rates for Unbundled Network Elements, Adm. Case No. 382, Expert Rebuttal Testimony, January 28, 2005.

Before the Public Service Commission State of Missouri:

In the Matter of an Investigation into Various Issues Related to the Missouri Universal Service, Case 98-329, Expert Testimony, August 2001.

Before the Nebraska Public Service Commission:

In the Matter of the Petition of Nebraska Technology and Telecommunications, Inc., for arbitration of interconnection rates, terms and conditions with Aliant Communications Co., d/b/a ALLTEL, Application No. C-2648, Expert Testimony, July 2002.

Before the New York Public Service Commission:

Petition of Fairpoint Communications Corp. For Negotiations/Medication Pursuant to Section 252(a)(2) of the Telecommunications Act of 1996 and for approval of any resulting interconnection Agreement, 2000, Case 99-C-1337, Expert Testimony, Filed March 2000.

Petition of Rochester Telephone Corporation for Approval of Proposed Restructuring Plan, Case 93-C-0103, and, *Petition of Rochester Telephone Corporation for Approval of a New Multi Year Rate Stability Agreement*, Case 93-C-0033, Expert Testimony, Filed February 1993.

In the Matter of the Proceeding on Motion of The Commission as to the Rates, Charges, Rules and Regulations of Highland Telephone Company for Telephone Service, Case 91-C-0123. Expert Testimony, Filed February 1991.

In the Matter of the Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Rochester Telephone Corporation, Case 89-C-022. Expert Testimony, Filed February 1989.

Before the Public Utilities Commission of Ohio:

In the Matter of the Application of Ohiotelnet.com, Inc.'s Petition for Arbitration of Interconnection Rates, Terms and Conditions and Related Arrangements with ALLTEL Ohio, Inc., Case No. 00-1601-TP-ARB, Expert Testimony, 2000.

In the Matter of the Application of Ameritech Communications Services, Inc.'s Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of1996 to Establish an Interconnection Agreement with the Western Reserve Telephone Company, Case No. 01-31-TP-ARB, Expert Testimony, 2001.

Before the Pennsylvania Public Utility Commission:

Joint Petition of Breezewood Telephone Company, Canton Telephone Company, Enterprise Telephone Company, Lakewood Telephone Company and Oswayo River Telephone Company for a Streamlined Form of Regulation and Plan for Network Modernization, Case P-00940754. Expert Testimony, Filed January

1994.

Pennsylvania Public Utility Commission, et al, Vs. Enterprise Telephone Company -- General Rate Proceeding, Case R-922317. Expert Testimony, Filed April 1992.

Petition of the Pennsylvania Telephone Association Small Company Group for Approval of an Alternate and Streamlined Form of Regulation and Network Modernization Plans, Docket No. P-00981425 et al, Expert Testimony, Filed July 31, 1998

Petition of ALLTEL Pennsylvania, Inc. For Approval of an Alternate and Streamlined Form of Regulation and Network Modernization Plans, , Docket No. P-00981423, Expert Testimony, Filed July 31, 1998

Before the Telecommunications Regulatory Board of Puerto Rico:

In re: Centennial Communications Corporation: Arbitration Petition Based on 47 USC 252(b), Chap. III, Art. 5(b) of the Puerto Rico Telecommunications Act of 1996, and on Tariffs, Terms and Conditions, Expert Testimony, *1997.*

In re: Lambda Communications Corporation: Arbitration Petition Based on 47 USC 252(b), Chap. III, Art. 5(b) of the Puerto Rico Telecommunications Act of 1996, and on Tariffs, Terms and Conditions, Expert Testimony, *1997.*

In re: Cellpage Communications: Arbitration Petition Based on 47 USC 252(b), Chap. III, Art. 5(b) of the Puerto Rico Telecommunications Act of 1996, and on Tariffs, Terms and Conditions, Expert Testimony, *1997.*

Telefonica Larga Distancia de Puerto Rico, Inc., Plaintiff, v. Puerto Rico Telephone Company, Re: Puerto Rico Telephone CompanyTariff K-2, Case No. 97-Q-0001, 97-Q-0003, Expert Testimony, Phase 1: April 2000, Phase 2: May 2001.

Lambda Communications, Inc., Sprint International Caribe, Inc. v. Puerto Rico Telephone Company, Defendant, Re: Suspension of PRTC's Intraisland Long Distance Tariff ("Your Answer Plan") and Requiring the Imputation of Costs Against PRTC, Case No. JRT–99-Q-0080, Expert Testimony, February 2000.

In re: RSV TELECOM, INC. Petition for Arbitration Pursuant to Section 47 U.S.C. 252(b) of the Federal Communications Act and Article 5(b), Chapter III, of the Puerto Rico Telecommunications Act – Interconnection Rates, Terms and Conditions, Case No. JRT-2000-AR-0001, Expert Testimony, May 2000.

International Telecom Ltd., Complainant v. Puerto Rico Telephone Company, Defendant, Breach of Contract and Request for Declaratory Ruling, Case No. JRT–00-Q-0014, Expert Testimony, May 2001.

In the Matter of Arbitration of Interconnection Rates, Terms and Conditions between WorldNet Telecommunications Inc. and the Puerto Rico Telephone Company, Re: Petition for Interconnection, Case No. JRT-2001-AR-0002, Expert Testimony, November 2001.

In the Matter of Arbitration of Interconnection Rates, Terms and Conditions between Newcomm Wireless Services, Inc., and Puerto Rico Telephone Company, Re: Interconnection Arbitration, Case No. JRT-2002-AR-0001, Expert Testimony, April 2002.

Petition of Centennial Puerto Rico License Corporation for Arbitration Pursuant to Section 47 U.S.C. 252(b) of the Federal Communications Act of 1996 to Establish an Interconnection Agreement with Puerto Rico Telephone Company, Case No. JRT-2002-AR-0002, Expert Testimony, May 2002.

Re: Expansion of the Local Service Zones of the Puerto Rico Telephone Company, Inc., Case No. JRT-2004-CCG-0001, Expert Testimony, March – April 2004; June 2004.

Telefonica Larga Distancia De Puerto Rico, Inc., WorldNet Telecommunications, Inc., Sprint Communications Company, LP, and AT&T of Puerto Rico, Inc., Plaintiffs, v. Puerto Rico Telephone Company, Inc., Defendant. Case No.s JRT-2005-Q-0121, JRT-2005-Q-0128, JRT-2005-Q-0297, JRT-2004-Q-0068. Expert Testimony, August 4, 2005.

In The United States District Court For the District of Puerto Rico

Telefonos Publicos de Puerto Rico, Inc. Plantiff v. Puerto Rico Telephone Company, Defendant, Civil Action 01-2519 GG, Expert Report, October 15, 2004.

Before the Texas State Office of Administrative Hearings:

Application of Texas ALLTEL, Inc., to Recover Lost Revenues and Costs of Implementing Expanded Local Calling Service Pursuant to P.U.C. Subst. R. 23.49(c)(12). SOAH Docket No. 473-98-0403, PUC Docket No. 17641, Expert Testimony, June 1998.

Before the Public Service Commission of Wisconsin:

In the Matter of the Application of CenturyTel of the Midwest-Kendall, Inc. for Rate Increase and Petition for Emergency Order for Rate Increase, Docket 2815-TR-103, Expert Testimony April 2000.

Dkt. No _____
D. Blessing Ex. No. ___ (DCB-40)
FCC Competition Report 2004

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

Exhibit DCB-40

Local Telephone Competition: Status as of June 30, 2004; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 13; Released December 2004.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 48
Company/ Alltel
Witness: David C. Blessing (DCB-40)
Date: 12/01/05

NEWS

Federal Communications Commission
445 12th Street, S.W.
Washington, D. C. 20554

News Media Information 202 / 418-0500
Internet: http://www.fcc.gov
TTY: 1-888-835-5322

FOR IMMEDIATE RELEASE
December 22, 2004

NEWS MEDIA CONTACT:
Mark Wigfield at (202) 418-0253
Email: mark.wigfield@fcc.gov

FEDERAL COMMUNICATIONS COMMISSION RELEASES DATA ON LOCAL TELEPHONE COMPETITION

Washington, D.C. – The Federal Communications Commission (FCC) today released new data on local telephone service competition in the United States. Twice a year, telecommunications carriers must report the number of lines in service and mobile wireless telephone subscribership pursuant to FCC's local competition and broadband data gathering program (FCC Form 477).

Statistics released today reflect data as of June 30, 2004, filed by providers on FCC Form 477 in the Commission's local competition and broadband data gathering program. For purposes of this report, carriers with at least 10,000 switched access lines, or at least 10,000 mobile wireless telephone service subscribers, in a state were required to file.

Summary Statistics

- Total CLEC end-user switched access lines increased by 7% during the first half of 2004, from 29.8 million to 32.0 million lines. By comparison, they increased by 10% during the preceding six months, from 27.0 to 29.8 million lines. For the full twelve-month period ending June 30, 2004, CLEC end-user lines increased by 19%.

- End-user customers obtained local telephone service by utilizing approximately 148.1 million incumbent local exchange carrier (ILEC) switched access lines, 32.0 million competitive local exchange carrier (CLEC) switched access lines, and 167.3 million mobile wireless telephone service subscriptions.

- About 17.8% of the 180.1 million total end-user switched access lines (or 32.0 million lines) were reported by CLECs at end of June 2004, compared to 16.3% (or 29.8 million lines) in December 2003.

- Nationwide, mobile wireless telephone subscribers increased 7% during the first half of 2004 from 157.0 million to 167.3 million. For the full twelve-month period ending June 30, 2004, mobile wireless subscribers increased by 13%.

- CLECs reported 20.8 million (or 15%) of the 135.4 million lines that served residential and small business end users and 11.2 million (or 25%) of the 44.6 million lines that served medium and large business, institutional, and government customers.

- Local telephone service by CLECs was provided over 3.3 million coaxial cable connections at the end of June 2004. These lines represent about 45% of the 7.5 million switched access lines that CLECs reported providing over their own local loop facilities, about 10% of all switched access lines that CLECs reported, and about 2% of total switched access lines.

- CLECs reported providing about 23% of switched access lines over their own local loop facilities. To serve the remainder, CLECs resold the services of other carriers or used unbundled network element (UNE) loops that they leased from other carriers

- ILECs reported providing about 13% more UNE loops with switching (referred to as the UNE-Platform) to unaffiliated carriers at the end of June 2004 than they reported six months earlier (17.1 million compared to 15.2 million) and about 1% more UNE loops without switching (about 4.3 million).

- At least one CLEC reported switched access lines in service in all 50 states, the District of Columbia, and Puerto Rico. In 29 states, ten or more CLECs reported serving local telephone service customers.

As additional information becomes available, it will be posted on the Commission's Internet site.

The report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, SW, Washington, DC. Copies may be purchased by calling Best Copy and Printing, Inc. at (800) 378–3160. The report can also be downloaded from the **FCC-State Link** Internet site at www.fcc.gov/wcb/stats.

- FCC -

Wireline Competition Bureau contacts: James Eisner and Ellen Burton at (202) 418-0940, TTY (202) 418-0484.

Local Telephone Competition: Status as of June 30, 2004

Industry Analysis and Technology Division
Wireline Competition Bureau
December 2004

This report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, SW, Washington, DC. Copies may be purchased by contacting Best Copy and Printing, Inc., 445 12th Street, SW, Room CY-B402, Washington, DC 20554, telephone (800) 378-3160 or via their website at www.bcpiweb.com. The report can also be downloaded from the **FCC-State Link** Internet site at www.fcc.gov/wcb/stats.

Local Telephone Competition: Status as of June 30, 2004

We present here summary statistics of the latest data on local telephone service competition in the United States as reported in the Commission's local competition and broadband data gathering program (FCC Form 477).[1] The summary statistics provide a snapshot of local telephone service competition based on switched access lines in service and state-specific mobile wireless telephone subscribership as of June 30, 2004.[2]

Based on the latest information now available, readers can draw the following broad conclusions:

- Competitive local exchange carriers (CLECs) reported 32.0 million (or 17.8%) of the approximately 180.1 million nationwide end-user switched access lines in service at the end of June 2004, compared to 29.8 million (or 16.3% of nationwide lines) in December 2003.[3] This represents a 7% growth in CLEC market size during the first half of 2004. See Table 1.

- End-user customers obtained local telephone service by utilizing approximately 148.1 million incumbent local exchange carrier (ILEC) switched access lines, 32.0 million competitive local exchange carrier (CLEC) switched access lines, and 167.3 million mobile wireless telephone service subscriptions. See Tables 1 and 13.

- 65% of switched access lines in service to CLEC end-user customers served residential and small business customers, compared to 77% of lines in service to incumbent local exchange carrier (ILEC) end-user customers served residential and small business customers.[4] See

---

[1] *Local Competition and Broadband Reporting*, CC Docket No. 99-301, Report and Order, 15 FCC Rcd 7717 (2000) (*Data Gathering Order*). During this data gathering program, qualifying providers file FCC Form 477 each year on March 1 (reporting data for the preceding December 31) and September 1 (reporting data for June 30 of the same year). Qualification status is determined separately for each state. If a carrier, or its holding company, has at least 10,000 local telephone connections in service in a state, it must file local telephone data for that state. An updated FCC Form 477, and instructions for that particular form, for each specific round of the data collection may be downloaded from the FCC Forms website at www.fcc.gov/formpage.html. We note that the Commission recently issued an Order that eliminated reporting thresholds. *See Local Telephone Competition and Broadband Reporting*, WC Docket No. 04-141, Report and Order, FCC 04-266 (rel. Nov. 12, 2004). Accordingly, beginning in September, 2005, data reported pursuant to Form 477 will not include thresholds.

[2] Statistical summaries of the earlier Form 477 data collections appeared in previous releases of the *Local Telephone Competition* report, available at www.fcc.gov/wcb/iatd/comp.html.

[3] Total numbers reported by incumbent local exchange carriers (ILECs) filing FCC Form 477 may be slightly understated because smaller carriers are not required to report data. However, as the reporting ILECs account for about 98% of all ILEC lines, the understatement should not be large. (All ILECs, whether or not they normally report to the FCC, provide data on the number of telephone lines served to the National Exchange Carrier Association for use in conjunction with the Commission's universal service mechanism.) We are less certain about the extent to which comparable lines as reported by CLECs are understated as a result of the state-specific reporting threshold, but we expect such understatement to be larger, on a percentage basis, than for ILECs.

[4] In the local telephone section of FCC Form 477, the switched access lines in service to the carrier's own end-user customers that are reported to be "used for residential and small business service" should be those lines that connect (continued....)

Table 2.

- CLECs reported providing about 23% of switched access lines over their own local loop facilities.[5] To serve the remainder, CLECs resold the services of other carriers or used unbundled network element (UNE) loops that they leased from other carriers.[6] See Table 3.

- Since December 1999, the percentage of nationwide CLEC switched access lines reported to be provisioned by reselling services has declined steadily, to 16% at the end of June 2004, and the percentage provisioned over UNE loops has grown, to 61%. See Table 3 and, for data reported for individual states, see Table 10.

- ILECs reported providing about 1.6 million switched access lines to unaffiliated carriers on a resale basis at the end of June 2004, down from 1.8 million six months earlier. They reported providing 21.4 million unbundled loops (with or without unbundled switching) to unaffiliated carriers, up from 19.4 million six months earlier.[7] See Table 4.

- ILECs reported providing about 13% more UNE loops with switching (referred to as the UNE-Platform) to unaffiliated carriers at the end of June 2004 than they reported six months earlier (17.1 million compared to 15.2 million) and about 1% more UNE loops without switching (about 4.3 million).

(Continued from previous page)
to customer locations for which the reporting carrier bills fewer than four (4) voice-grade equivalent lines used for local exchange service. If this information is not available, the carrier may use tariffs or marketing information to report an estimate that it reasonably expects to be accurate within plus or minus five percentage points of the true number.

[5] A reporting carrier should own the "last mile" of wire, cable, or optical fiber that connects to the end-user premises (or have obtained radio spectrum for the equivalent fixed wireless facility) if it reports providing the local telephone line over its own facilities. In general, local exchange and exchange access lines provisioned over facilities (other than dark fiber) and services obtained from another carrier are not the reporting carrier's "own facilities" for purposes of FCC Form 477, irrespective of whether those facilities or services are obtained under interconnection arrangements, under tariff, or by other means. In particular, owning the switch that provides dialtone (and other services) over a UNE loop leased from another carrier does not qualify a line as being provisioned over the reporting carrier's own facilities.

[6] From CLECs, FCC Form 477 collects information on the percentage of the CLEC's switched access lines provided over "UNE loops." For purposes of FCC Form 477, this term includes UNE loops leased from an unaffiliated carrier on a stand-alone basis and also UNE loops leased in combination with UNE switching or any other unbundled network element.

[7] The reported number of UNE loops provided without ILEC switching in Table 4 includes some UNE loops that ILECs supply to DSL-service providers that do not also provide local telephone service. Because no local telephone service is provided by means of such UNE loops, they are not included in the end-user local telephone lines reported by CLECs.

- Local telephone service by CLECs was provided over 3.3 million coaxial cable connections at the end of June 2004. These lines represent about 45% of the 7.5 million switched access lines that CLECs reported providing over their own local loop facilities, about 10% of all switched access lines that CLECs reported, and about 2% of total switched access lines. See Table 5.

- The Commission's data collection program collates information about CLEC local telephone service lines (and the CLEC share of total local telephone service lines) in individual states. Relatively large numbers of CLEC lines are associated with the more populous states.[8] With respect to the calculated CLEC share of switched access lines in service, however, some less populous states, such as Nebraska, New Hampshire, Rhode Island, and Utah had larger CLEC shares than some more populous states, such as California, Florida, and Ohio, as of June 2004. See Tables 6 - 9.[9]

- The percentage of CLEC switched access lines reported to serve residential and small business customers varies among the states, and is most frequently lower than the corresponding ILEC percentage. See Table 11.

- At least one CLEC reported switched access lines in service in all 50 states, the District of Columbia, and Puerto Rico.[10] In 29 states, ten or more CLECs reported serving local telephone service customers. See Table 12.

- The 85 providers of mobile wireless telephone services that reported information served about 167.3 million subscribers at the end of June 2004.[11] About 7% of these subscribers received their service via a reseller of mobile wireless telephone service. See Table 13.

- The Commission's data collection program requires CLECs and ILECs to identify each zip code in which the carrier provides local telephone service to at least one end-user customer.[12]

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[8] The largest numbers of CLEC lines are reported for California, the most populous state, followed by New York and Texas, the third and second most populous states, respectively.

[9] CLEC shares appearing in Table 7 are based on CLEC and ILEC lines in Tables 8 and 9.

[10] Under section 3(40) of the Communications Act, the term *state* "includes the District of Columbia and the Territories and possessions." 47 U.S.C. §153(40). We note that carriers that have fewer than 10,000 local telephone lines in service in a state are not required to report those lines on FCC Form 477, but may file the data on a voluntary basis. There were 37 voluntary ILEC filings and 52 voluntary CLEC filings of state-specific data as of June 30, 2004. In the course of our ten data collections to date, the number of voluntary ILEC filings has varied between 7 and 37, and the number of voluntary CLEC filings has varied between 13 and 53.

[11] Facilities-based providers with fewer than 10,000 mobile wireless telephone service subscribers in a state (measured by revenue-generating handsets in service) are not required to report. A facilities-based mobile wireless telephone service provider serves subscribers using spectrum licenses that it has obtained or manages.

[12] CLECs and ILECs are required to report, for states in which they have at least 10,000 local telephone lines in service, lists of zip codes where they have subscribers. Providers of mobile wireless telephone service do not report zip codes.

As of June 30, 2004, at least one CLEC was serving customers in 79% of the nation's zip codes. About 97% of United States households resided in these zip codes. Moreover, multiple carriers reported providing local telephone service in the major population centers of the country. See Table 14, Table 15, and the map that follows Table 16.

- In Florida, Massachusetts, New Jersey, New York and Texas at least 40% of zip codes had ten or more reporting CLECs. By contrast, 14% of nationwide zip codes had ten or more reporting CLECs. See Table 16.

As other information from FCC Form 477 becomes available, it will be routinely posted on the Commission's Internet site. We invite users of the information presented in this statistical summary to provide suggestions for improved data collection and analysis by:

- Using the attached customer response form,
- E-mailing comments to James.Eisner@fcc.gov,
- Calling the Industry Analysis and Technology Division of the Wireline Competition Bureau at (202) 418-0940, or
- Participating in any formal proceedings undertaken by the Commission to solicit comments for improvement of FCC Form 477.

Table 1
End-User Switched Access Lines Reported

Date	ILEC Lines	CLEC Lines	Total	CLEC Share
December 1999	181,307,695	8,194,243	189,501,938	4.3 %
June 2000	179,761,930	11,557,381	191,319,311	6.0
December 2000	177,641,529	14,871,409	192,512,938	7.7
June 2001	174,861,248	17,274,727	192,135,975	9.0
December 2001	172,043,582	19,653,441	191,697,023	10.3
June 2002	167,472,318	21,644,928	189,117,246	11.4
December 2002	164,526,149	24,863,691	189,389,840	13.1
June 2003	158,386,821	26,985,345	185,372,166	14.6
December 2003	153,266,932	29,775,438	183,042,370	16.3
June 2004	148,103,506	31,983,229	180,086,735	17.8

Note: Some previously filed data have been revised.

Chart 1
End-User Switched Access Lines Reported
(Lines in Millions)

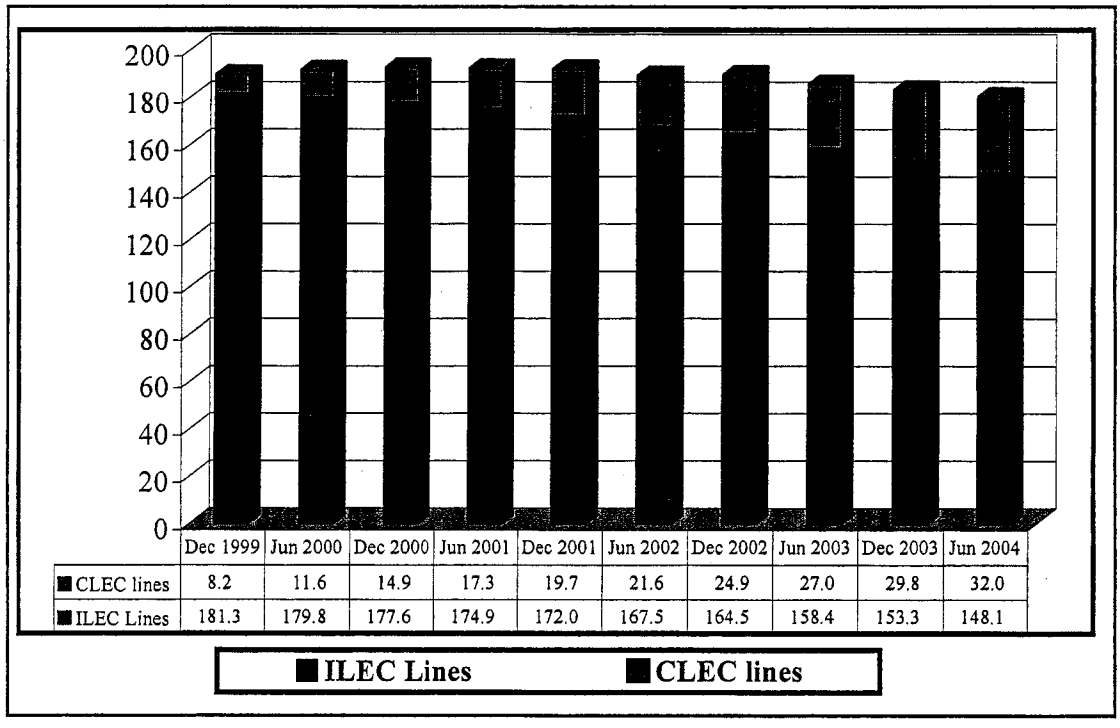


Table 2
End-User Switched Access Lines by Customer Type

Date	Reporting ILECs			Reporting CLECs		
	Residential & Small Business	Other [1]	% Residential & Small Business	Residential & Small Business	Other [1]	% Residential & Small Business
December 1999	139,758,434	41,549,261	77.1 %	3,368,702	4,825,541	41.1 %
June 2000	140,635,199	39,126,731	78.2	4,579,501	6,977,880	39.6
December 2000	138,872,415	38,769,114	78.2	6,620,471	8,250,938	44.5
June 2001	134,618,062	40,243,186	77.0	7,793,071	9,481,656	45.1
December 2001	133,421,570	38,622,012	77.6	9,489,049	10,164,392	48.3
June 2002	131,051,178	36,421,140	78.3	11,080,676	10,564,252	51.2
December 2002	127,606,456	36,919,693	77.6	14,608,495	10,255,196	58.8
June 2003	122,663,356	35,723,465	77.4	16,770,561	10,214,784	62.1
December 2003	118,746,138	34,520,794	77.5	18,702,229	11,073,209	62.8
June 2004	114,621,599	33,481,907	77.4	20,824,618	11,158,611	65.1

Note: Some previously filed data have been revised.

[1] Medium and large business, institutional, and government customers.

Chart 2
Percent of Lines that Serve Residential and Small Business Customers

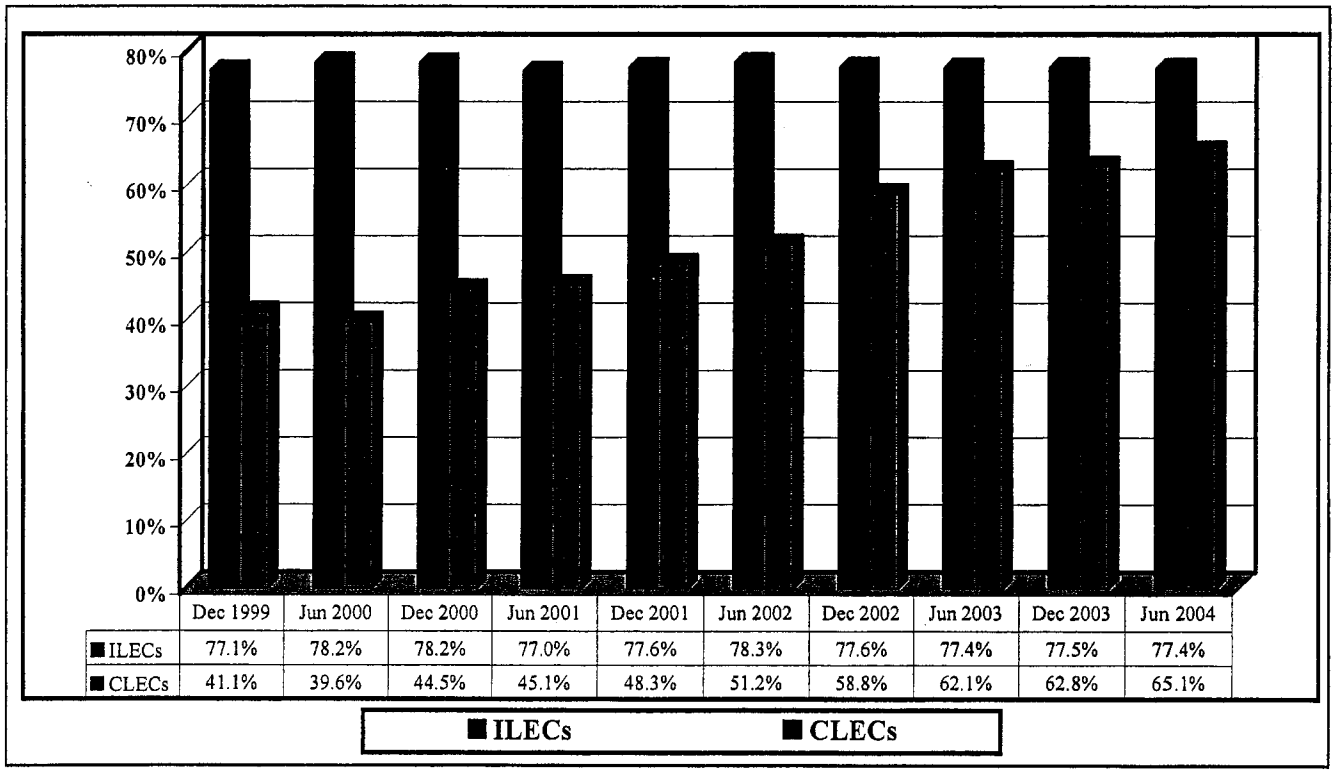


Table 3
Reporting Competitive Local Exchange Carriers
(End-User Switched Access Lines in Thousands)

Date	CLECs Reporting	Total End-User Lines	Acquired From Other Carriers				CLEC-Owned	
			Resold Lines	Percent	UNEs [1]	Percent	Lines [2]	Percent
Dec 1999	81	8,194	3,513	42.9 %	1,959	23.9	2,723	33.2 %
Jun 2000	78	11,557	4,315	37.3	3,201	27.7	4,042	35.0
Dec 2000	89	14,871	4,114	27.7	5,540	37.3	5,217	35.1
Jun 2001	91	17,275	3,919	22.7	7,580	43.9	5,776	33.4
Dec 2001	94	19,653	4,250	21.6	9,332	47.5	6,072	30.9
Jun 2002	96	21,645	4,478	20.7	10,930	50.5	6,236	28.8
Dec 2002	112	24,864	4,677	18.8	13,709	55.1	6,479	26.1
Jun 2003	125	26,985	4,887	18.1	15,728	58.3	6,370	23.6
Dec 2003	136	29,775	4,842	16.3	17,888	60.1	7,045	23.7
Jun 2004	136	31,983	5,140	16.1	19,356	60.5	7,487	23.4

Notes: Some previously filed data have been revised. Figures may not add to totals due to rounding.

[1] Includes unbundled network element (UNE) loops leased from an unaffiliated carrier on a stand-alone basis and also UNE loops leased in combination with UNE switching or any other unbundled network element.

[2] Lines provided over CLEC-owned "last-mile" facilities.

Chart 3
Competitive Local Exchange Carriers' End-User Lines

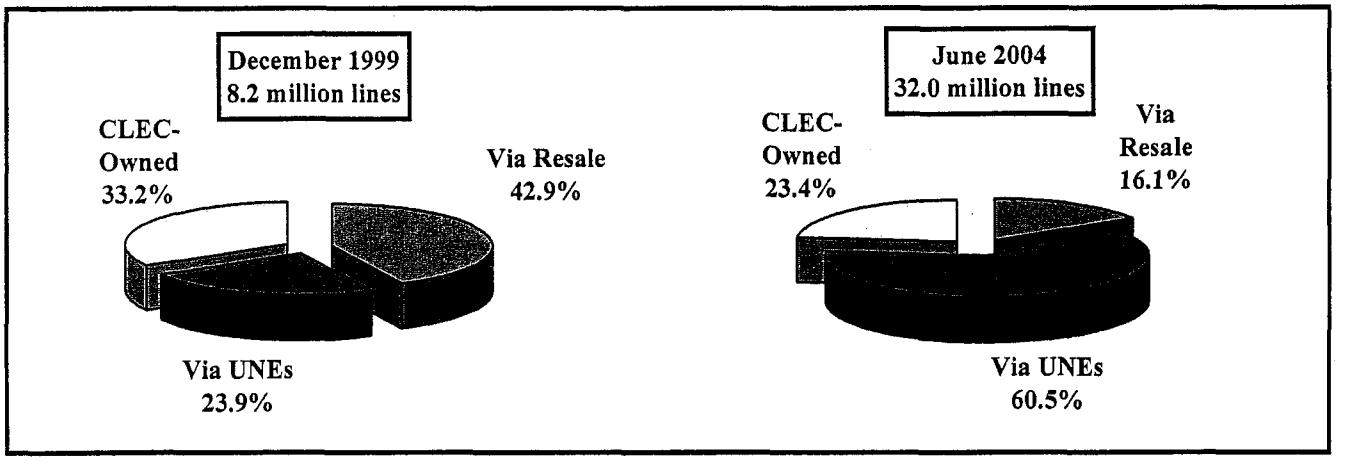


Table 4
Reporting Incumbent Local Exchange Carriers
(End-User Switched Access Lines in Thousands)

Date [1]	ILECs Reporting	Total Lines	End-User Lines	Provided to Other Carriers					
				Resold Lines	UNEs			Total UNEs and Resold Lines	Percent of Total Lines
					Without Switching	With Switching	Total UNEs		
Dec 1997	9	159,008	157,132	1,743			133	1,876	1.2 %
Jun 1998	8	161,810	159,118	2,448			244	2,692	1.7
Dec 1998	7	164,614	161,191	3,062			361	3,423	2.1
Jun 1999	7	167,177	162,909	3,583			685	4,268	2.6
Dec 1999	168	187,294	181,308	4,494	1,004	489	1,493	5,987	3.2
Jun 2000	159	188,171	179,762	5,098	1,696	1,616	3,312	8,409	4.5
Dec 2000	166	188,304	177,642	5,388	2,436	2,838	5,274	10,662	5.7
Jun 2001	156	187,201	174,861	4,417	3,161	4,761	7,922	12,340	6.6
Dec 2001	164	185,517	172,044	4,014	3,679	5,781	9,460	13,474	7.3
Jun 2002	166	182,487	167,472	3,475	4,061	7,478	11,540	15,015	8.2
Dec 2002	174	181,756	164,526	2,743	4,259	10,227	14,487	17,229	9.5
Jun 2003	181	177,860	158,387	2,232	4,205	13,036	17,241	19,473	10.9
Dec 2003	185	174,536	153,267	1,833	4,260	15,176	19,436	21,269	12.2
Jun 2004	185	171,129	148,104	1,600	4,290	17,136	21,426	23,026	13.5

Notes: Some previously filed data have been revised. Figures may not add to totals due to rounding.

[1] Data for December 1997 through June 1999 are from Common Carrier Bureau voluntary surveys. Starting with December 1999, data are from FCC Form 477 filings.

Chart 4
ILEC Lines and the Percent Provided to Other Carriers

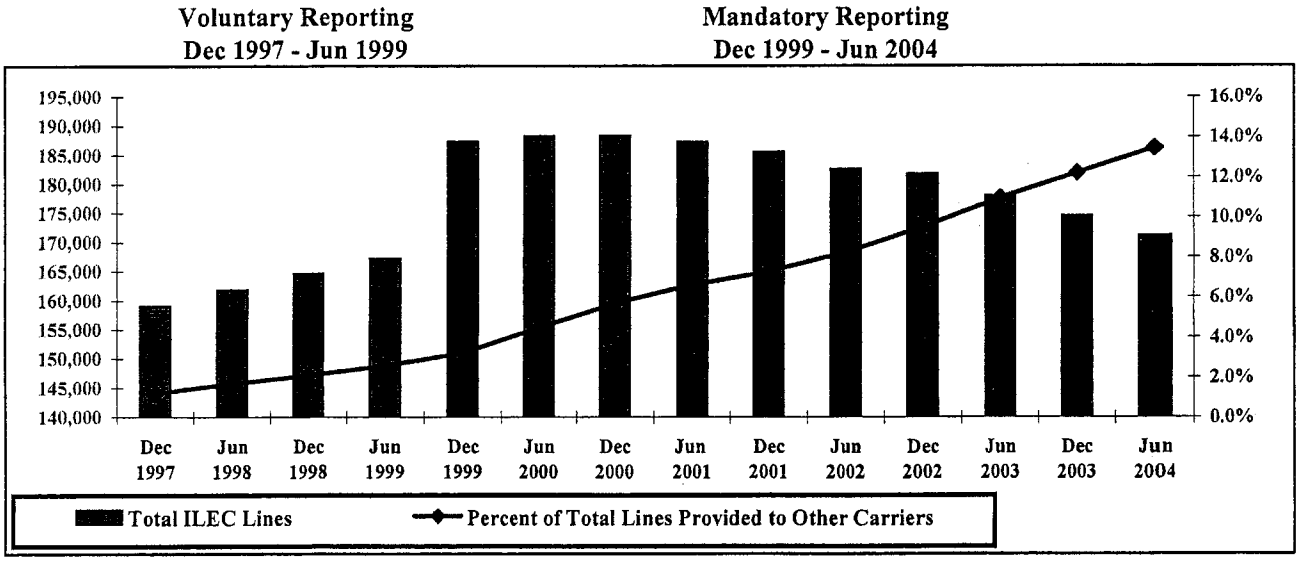


Table 5
Competitive Local Exchange Carrier Lines by Type of Technology
(End-User Switched Access Lines in Thousands)

	Coaxial Cable	Other Technologies	Total	Percent Coaxial Cable
December 2000	1,125	13,746	14,871	7.6 %
June 2001	1,876	15,399	17,275	10.9
December 2001	2,246	17,408	19,653	11.4
June 2002	2,597	19,048	21,645	12.0
December 2002	3,071	21,793	24,864	12.4
June 2003	3,123	23,863	26,985	11.6
December 2003	3,301	26,474	29,775	11.1
June 2004	3,338	28,645	31,983	10.4

Note: Some previously filed data have been revised.

Chart 5
Competitive Local Exchange Carrier Lines by Type of Technology
(End-User Switched Access Lines in Thousands)

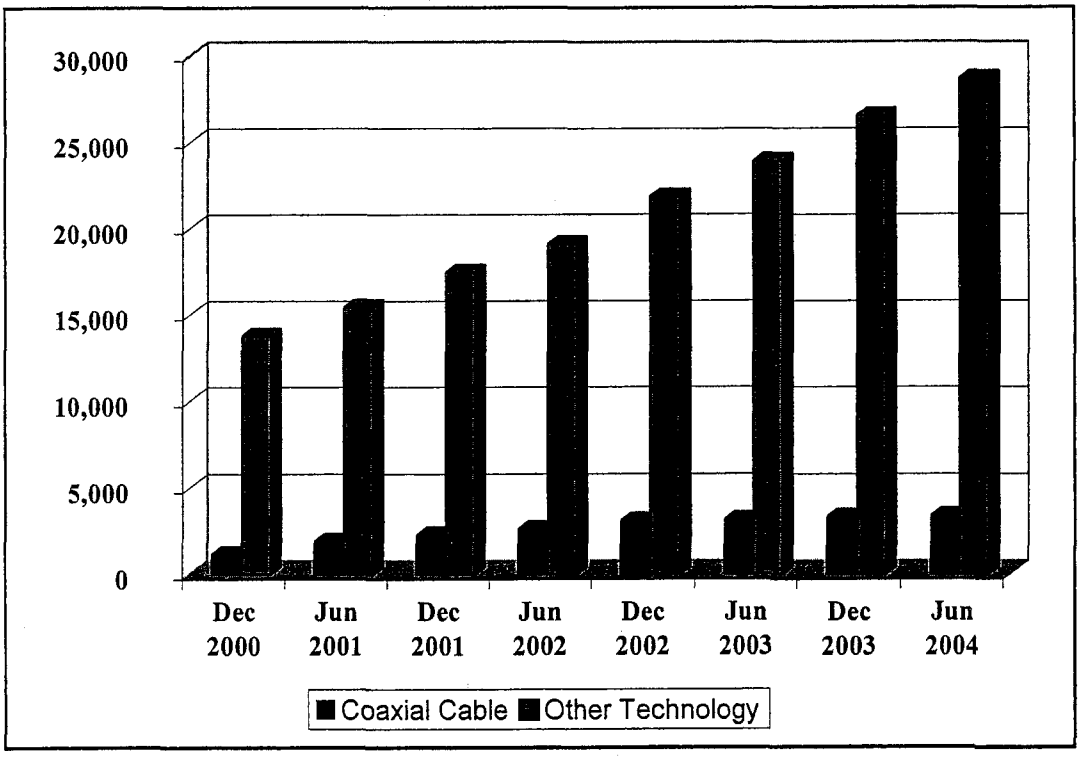


Table 6
End-User Switched Access Lines Served by Reporting Local Exchange Carriers
(As of June 30, 2004)

State	ILECs	CLECs	Total	CLEC Share
Alabama	1,997,058	365,060	2,362,118	15 %
Alaska	419,304	*	*	*
Arizona	2,415,432	814,194	3,229,626	25
Arkansas	1,172,200	162,996	1,335,196	12
California	19,478,761	3,723,815	23,202,576	16
Colorado	2,439,132	498,583	2,937,715	17
Connecticut	2,102,689	272,385	2,375,074	11
Delaware	497,466	92,810	590,276	16
District of Columbia	915,583	215,421	1,131,004	19
Florida	9,633,565	1,785,001	11,418,566	16
Georgia	4,044,935	977,358	5,022,293	19
Hawaii	683,146	*	*	*
Idaho	666,914	47,398	714,312	7
Illinois	6,326,988	1,672,522	7,999,510	21
Indiana	3,095,055	501,936	3,596,991	14
Iowa	1,232,364	199,115	1,431,479	14
Kansas	1,102,696	316,946	1,419,642	22
Kentucky	1,841,495	218,810	2,060,305	11
Louisiana	2,040,518	283,333	2,323,851	12
Maine	690,024	113,957	803,981	14
Maryland	3,239,029	615,757	3,854,786	16
Massachusetts	3,432,038	997,760	4,429,798	23
Michigan	4,487,619	1,575,267	6,062,886	26
Minnesota	2,377,827	604,152	2,981,979	20
Mississippi	1,148,580	131,218	1,279,798	10
Missouri	2,906,801	430,538	3,337,339	13
Montana	482,548	19,204	501,752	4
Nebraska	736,257	205,560	941,817	22
Nevada	1,272,060	149,735	1,421,795	11
New Hampshire	670,480	170,433	840,913	20
New Jersey	5,148,627	1,319,513	6,468,140	20
New Mexico	894,345	76,469	970,814	8
New York	8,685,767	3,684,036	12,369,803	30
North Carolina	4,440,280	576,538	5,016,818	11
North Dakota	265,881	22,502	288,383	8
Ohio	5,697,351	979,885	6,677,236	15
Oklahoma	1,591,936	242,737	1,834,673	13
Oregon	1,743,918	267,121	2,011,039	13
Pennsylvania	6,638,982	1,706,036	8,345,018	20
Puerto Rico	1,111,894	*	*	*
Rhode Island	448,853	213,787	662,640	32
South Carolina	2,025,422	226,284	2,251,706	10
South Dakota	271,682	*	*	*
Tennessee	2,818,771	475,312	3,294,083	14
Texas	10,139,446	2,320,273	12,459,719	19
Utah	940,678	288,009	1,228,687	23
Vermont	366,716	*	*	*
Virgin Islands	70,672	0	70,672	0
Virginia	4,075,297	994,588	5,069,885	20
Washington	3,276,000	494,375	3,770,375	13
West Virginia	912,228	*	*	*
Wisconsin	2,754,836	626,809	3,381,645	19
Wyoming	235,360	*	*	*
Nationwide	148,103,506	31,983,229	180,086,735	18 %

Note: Carriers with under 10,000 lines in a state were not required to report.

* Data withheld to maintain firm confidentiality

Table 7
Competitive Local Exchange Carrier Share of End-User Switched Access Lines

State	1999	2000		2001		2002		2003		2004
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Alabama	5 %	3 %	4 %	5 %	5 %	5 %	9 %	11 %	13 %	15 %
Alaska	*	*	*	*	*	*	*	*	*	*
Arizona	*	5	5	7	9	11	12	16	22	25
Arkansas	*	*	*	*	*	*	10	*	11	12
California	4	5	6	7	8	9	11	13	15	16
Colorado	5	7	9	10	13	14	15	16	17	17
Connecticut	3	5	6	7	7	9	9	10	10	11
Delaware	*	*	*	0	0	*	*	9	12	16
District of Columbia	7	7	9	12	13	16	14	16	17	19
Florida	6	6	6	7	7	9	13	13	14	16
Georgia	5	6	8	10	11	13	15	17	18	19
Hawaii	*	*	0	*	*	*	*	*	*	*
Idaho	0	0	*	*	*	*	*	5	6	7
Illinois	5	7	9	13	15	17	19	19	20	21
Indiana	3	4	5	5	5	7	8	9	13	14
Iowa	*	9	11	11	12	12	13	13	13	14
Kansas	*	5	7	8	9	12	17	21	21	22
Kentucky	2	*	3	*	*	*	4	5	8	11
Louisiana	3	2	3	4	4	5	7	9	10	12
Maine	*	*	*	*	*	*	*	8	10	14
Maryland	2	3	4	6	4	6	7	10	14	16
Massachusetts	6	8	11	12	15	16	16	18	21	23
Michigan	3	5	6	9	13	18	21	22	25	26
Minnesota	6	7	9	11	13	14	17	17	19	20
Mississippi	4	*	4	4	3	2	6	7	9	10
Missouri	3	5	6	6	7	8	10	10	11	13
Montana	*	*	*	*	*	*	*	3	4	4
Nebraska	*	*	*	*	12	16	18	20	21	22
Nevada	*	*	*	10	*	*	11	9	10	11
New Hampshire	*	*	6	8	10	13	14	16	17	20
New Jersey	*	4	5	4	5	6	10	15	19	20
New Mexico	*	*	*	*	*	*	*	*	*	8
New York	9	16	20	23	25	25	24	27	28	30
North Carolina	3	4	4	6	6	6	8	9	9	11
North Dakota	*	*	*	*	*	*	*	*	8	8
Ohio	4	4	4	4	5	7	9	11	14	15
Oklahoma	*	*	5	6	8	10	11	11	14	13
Oregon	2	3	4	5	7	7	9	8	12	13
Pennsylvania	5	8	10	13	14	15	16	17	19	20
Puerto Rico	0	*	*	*	*	*	*	*	*	*
Rhode Island	*	*	*	10	16	18	21	25	28	32
South Carolina	*	*	4	4	3	5	7	9	9	10
South Dakota	*	*	*	*	*	*	*	14	18	*
Tennessee	4	6	6	8	8	7	9	10	11	14
Texas	4	7	13	14	16	16	17	18	18	19
Utah	3	6	10	11	13	13	15	19	20	23
Vermont	*	*	*	*	*	*	*	*	*	*
Virgin Islands	0	0	0	0	0	0	0	0	0	0
Virginia	2	5	7	9	11	12	12	14	17	20
Washington	4	5	6	6	8	9	10	10	11	13
West Virginia	*	*	*	*	*	*	*	*	*	*
Wisconsin	5	7	8	9	11	12	13	15	18	19
Wyoming	*	*	*	*	*	*	*	*	*	*
Nationwide	4 %	6 %	8 %	9 %	10 %	11 %	13 %	15 %	16 %	18 %

Notes: Some previously filed data have been revised. Carriers with under 10,000 lines in a state were not required to report.

* Data withheld to maintain firm confidentiality.

Table 8
End-User Switched Access Lines Served by Reporting Competitive Local Exchange Carriers

	1999	2000		2001		2002		2003		2004
State	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Alabama	131,357	78,525	104,933	121,059	117,159	118,721	215,962	265,556	302,911	365,060
Alaska	*	*	*	*	*	*	*	*	*	*
Arizona	*	155,657	165,597	231,777	310,517	354,592	400,080	519,128	707,477	814,194
Arkansas	*	*	*	*	*	*	144,411	*	146,513	162,996
California	1,027,200	1,317,414	1,498,146	1,668,232	2,003,404	2,158,878	2,705,851	3,046,959	3,422,373	3,723,815
Colorado	141,135	204,608	286,955	325,983	391,257	434,125	482,014	495,007	505,772	498,583
Connecticut	86,385	136,086	154,349	164,379	187,450	222,815	236,462	234,372	242,643	272,385
Delaware	*	*	*	0	0	*	*	53,473	71,230	92,810
District of Columbia	77,865	72,696	94,850	124,630	126,461	161,114	160,174	174,584	180,680	215,421
Florida	681,382	670,714	718,157	864,892	866,809	1,035,417	1,509,299	1,552,996	1,576,562	1,785,001
Georgia	254,672	327,881	462,392	515,730	600,087	704,651	807,935	861,156	913,567	977,358
Hawaii	*	*	0	*	*	*	*	*	*	*
Idaho	0	0	*	*	*	*	*	33,864	46,858	47,398
Illinois	443,936	590,208	803,492	1,113,112	1,341,060	1,468,057	1,602,482	1,616,765	1,662,007	1,672,522
Indiana	96,091	156,280	191,921	180,221	205,845	252,722	284,532	348,159	457,657	501,936
Iowa	*	140,706	164,069	164,637	186,254	190,869	201,176	195,860	188,645	199,115
Kansas	*	84,823	106,686	121,294	145,659	176,322	258,312	318,862	310,032	316,946
Kentucky	45,522	*	56,392	*	*	*	92,483	97,288	162,391	218,810
Louisiana	71,206	57,617	69,437	108,820	93,107	115,220	188,652	212,363	229,051	283,333
Maine	*	*	*	*	*	*	*	70,275	78,050	113,957
Maryland	79,173	131,272	160,126	211,499	158,999	232,793	285,416	379,961	555,282	615,757
Massachusetts	277,476	384,548	509,731	576,442	669,209	736,932	750,473	846,276	973,607	997,760
Michigan	208,980	349,703	366,305	583,653	865,182	1,211,379	1,362,217	1,384,973	1,547,619	1,575,267
Minnesota	202,675	230,789	287,660	353,245	394,310	443,739	572,708	534,965	581,234	604,152
Mississippi	57,914	*	63,515	51,496	43,578	22,966	74,410	93,912	111,657	131,218
Missouri	113,347	178,377	203,537	224,442	262,947	279,342	336,895	334,319	362,346	430,538
Montana	*	*	*	*	*	*	*	17,473	18,616	19,204
Nebraska	*	*	*	*	144,229	159,617	177,698	190,754	199,498	205,560
Nevada	*	*	*	144,453	*	*	163,520	132,684	150,615	149,735
New Hampshire	*	*	52,137	67,315	85,549	109,610	125,893	136,510	142,385	170,433
New Jersey	*	294,690	323,680	300,594	330,005	396,865	682,249	1,009,996	1,235,977	1,319,513
New Mexico	*	*	*	*	*	*	*	*	*	76,469
New York	1,191,446	2,157,618	2,769,814	3,138,133	3,353,394	3,259,221	3,190,192	3,478,918	3,596,739	3,684,036
North Carolina	166,473	187,253	230,733	323,594	302,044	328,715	405,853	443,600	476,299	576,538
North Dakota	*	*	*	*	*	*	*	*	25,039	22,502
Ohio	262,159	255,267	308,213	280,088	352,811	510,623	652,104	754,020	946,303	979,885
Oklahoma	*	*	102,456	125,912	160,186	203,028	207,798	217,854	270,313	242,737
Oregon	47,239	58,699	99,326	118,425	153,084	154,492	183,319	167,965	249,696	267,121
Pennsylvania	412,761	671,437	870,618	1,122,623	1,186,897	1,329,357	1,405,894	1,413,458	1,585,025	1,706,036
Puerto Rico	0	*	*	*	*	*	*	*	*	*
Rhode Island	*	*	*	69,237	108,190	119,112	145,202	167,714	187,936	213,787
South Carolina	*	*	89,255	90,241	72,035	121,331	171,572	204,252	218,095	226,284
South Dakota	*	*	*	*	*	*	*	49,243	64,784	*
Tennessee	129,987	200,721	222,917	272,211	268,222	247,056	329,150	349,588	380,298	475,312
Texas	586,111	998,326	1,764,676	1,891,131	2,166,033	2,170,914	2,182,929	2,266,028	2,265,505	2,320,273
Utah	34,351	79,034	129,834	145,603	155,992	161,193	194,352	235,170	241,454	288,009
Vermont	*	*	*	*	*	*	*	*	*	*
Virgin Islands	0	0	0	0	0	0	0	0	0	0
Virginia	88,431	228,271	336,826	402,528	537,753	558,206	639,330	738,479	873,022	994,588
Washington	138,449	184,353	240,514	229,693	336,230	358,933	406,750	386,104	433,967	494,375
West Virginia	*	*	*	*	*	*	*	*	*	*
Wisconsin	177,336	244,373	278,087	322,735	367,195	420,200	477,915	526,343	603,492	626,809
Wyoming	*	*	*	*	*	*	*	*	*	*
Total	8,194,243	11,557,381	14,871,409	17,274,727	19,653,441	21,644,928	24,863,691	26,985,345	29,775,438	31,983,229

Note: Some previously filed data have been revised. Carriers with under 10,000 lines in a state were not required to report.

* Data withheld to maintain firm confidentiality.

Table 9
End-User Switched Access Lines Served by Reporting Incumbent Local Exchange Carriers

	1999	2000		2001		2002		2003		2004
State	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Alabama	2,360,023	2,456,101	2,424,197	2,413,440	2,381,574	2,330,940	2,238,352	2,183,237	2,046,244	1,997,058
Alaska	460,425	486,337	481,684	474,215	462,804	484,065	466,880	430,339	425,322	419,304
Arizona	3,006,276	3,051,648	3,073,779	3,062,586	2,981,156	2,947,967	2,878,210	2,700,186	2,541,931	2,415,432
Arkansas	1,396,981	1,422,736	1,420,169	1,412,863	1,363,454	1,304,659	1,257,291	1,220,542	1,212,895	1,172,200
California	23,198,657	23,436,793	23,250,580	23,103,077	22,771,976	22,315,423	21,475,881	20,645,363	20,111,818	19,478,761
Colorado	2,873,169	2,887,311	2,833,948	2,805,532	2,727,654	2,717,320	2,642,166	2,557,814	2,496,330	2,439,132
Connecticut	2,416,300	2,438,119	2,382,208	2,363,687	2,329,716	2,305,082	2,266,558	2,219,140	2,172,574	2,102,689
Delaware	581,714	570,331	555,913	567,381	552,331	537,498	562,577	546,684	525,331	497,466
District of Columbia	994,975	914,716	922,531	887,590	865,008	829,592	976,228	932,576	901,056	915,583
Florida	11,090,801	11,365,772	11,349,981	11,211,674	11,019,972	10,603,872	10,406,129	10,133,865	9,975,073	9,633,565
Georgia	4,869,774	5,032,360	4,988,949	4,905,002	4,723,842	4,604,834	4,423,324	4,308,760	4,187,544	4,044,935
Hawaii	736,080	737,255	744,205	739,979	735,459	729,239	723,111	707,634	698,178	683,146
Idaho	709,210	724,440	733,580	732,814	706,991	707,180	700,089	687,342	678,088	666,914
Illinois	8,040,394	7,990,635	7,875,563	7,558,613	7,578,706	7,322,494	6,994,127	6,741,172	6,517,977	6,326,988
Indiana	3,559,946	3,597,365	3,574,414	3,576,710	3,637,893	3,542,715	3,459,873	3,327,235	3,188,863	3,095,055
Iowa	1,439,574	1,414,622	1,387,746	1,379,872	1,356,643	1,357,155	1,329,633	1,296,148	1,285,764	1,232,364
Kansas	1,543,799	1,533,755	1,498,636	1,441,940	1,397,937	1,324,804	1,236,051	1,186,953	1,149,527	1,102,696
Kentucky	2,126,249	2,173,716	2,166,664	2,170,191	2,173,958	2,141,611	2,100,313	2,024,894	1,910,272	1,841,495
Louisiana	2,423,524	2,515,485	2,506,348	2,505,961	2,440,988	2,428,935	2,353,620	2,251,091	2,146,036	2,040,518
Maine	822,990	818,979	804,652	801,649	764,536	768,216	797,973	775,378	737,751	690,024
Maryland	3,932,708	3,760,409	3,802,622	3,599,027	3,660,869	3,488,961	3,634,524	3,541,493	3,369,687	3,239,029
Massachusetts	4,580,383	4,313,988	4,252,502	4,131,520	3,931,469	3,804,513	3,914,218	3,771,142	3,565,171	3,432,038
Michigan	6,287,424	6,363,024	6,262,696	6,027,730	5,965,971	5,498,139	5,174,471	4,819,294	4,614,333	4,487,619
Minnesota	2,926,177	2,935,154	2,940,034	2,861,684	2,698,867	2,804,937	2,708,221	2,572,413	2,453,860	2,377,827
Mississippi	1,288,847	1,355,932	1,352,284	1,356,136	1,332,389	1,332,853	1,277,168	1,235,339	1,186,725	1,148,580
Missouri	3,464,118	3,508,475	3,418,983	3,446,252	3,328,130	3,262,072	3,145,872	3,067,732	2,997,347	2,906,801
Montana	530,884	514,992	529,878	527,989	521,550	514,353	509,979	500,865	490,505	482,548
Nebraska	946,718	1,010,682	949,217	931,979	1,030,125	867,474	828,394	775,829	736,105	736,257
Nevada	1,331,122	1,341,786	1,353,193	1,366,124	1,352,724	1,351,282	1,348,042	1,304,641	1,301,193	1,272,060
New Hampshire	861,976	813,919	805,143	775,864	758,515	741,553	743,300	723,408	703,594	670,480
New Jersey	6,867,616	6,705,441	6,747,131	6,707,243	6,482,459	6,226,079	6,200,678	5,766,555	5,425,840	5,148,627
New Mexico	940,489	947,809	957,195	977,439	965,946	969,763	965,816	940,232	919,450	894,345
New York	12,675,692	11,532,265	10,952,903	10,689,293	10,223,476	9,806,596	10,037,200	9,588,446	9,115,865	8,685,767
North Carolina	4,922,110	5,136,006	5,133,984	5,040,317	5,023,740	4,942,113	4,824,385	4,682,253	4,630,912	4,440,280
North Dakota	357,062	354,945	317,270	312,573	306,963	303,326	293,639	280,507	275,457	265,881
Ohio	6,904,938	6,944,806	6,922,773	6,876,434	6,967,603	6,705,911	6,405,570	6,131,768	5,889,260	5,697,351
Oklahoma	2,008,819	1,983,894	1,950,618	1,923,027	1,873,489	1,822,278	1,726,359	1,679,984	1,638,861	1,591,936
Oregon	2,104,982	2,119,998	2,109,510	2,079,221	2,043,164	2,005,347	1,955,544	1,871,970	1,813,627	1,743,918
Pennsylvania	8,474,914	8,200,347	8,012,115	7,818,599	7,524,072	7,288,959	7,394,441	7,146,626	6,922,904	6,638,982
Puerto Rico	1,294,962	1,288,076	1,299,291	1,300,665	1,288,439	1,288,718	1,276,493	1,212,779	1,178,707	1,111,894
Rhode Island	676,212	639,438	627,784	604,128	570,513	547,728	542,069	509,749	482,392	448,853
South Carolina	2,222,641	2,234,165	2,314,649	2,239,383	2,276,681	2,253,384	2,210,548	2,143,712	2,100,205	2,025,422
South Dakota	353,816	353,073	309,349	338,834	327,150	314,755	309,173	296,879	297,540	271,682
Tennessee	3,322,220	3,419,317	3,412,145	3,352,224	3,289,154	3,232,548	3,147,556	3,042,739	2,943,127	2,818,771
Texas	12,601,936	12,349,899	11,892,768	11,496,247	11,365,441	11,006,831	10,766,127	10,451,045	10,269,558	10,139,446
Utah	1,197,043	1,207,581	1,174,625	1,149,667	1,086,537	1,090,791	1,075,061	1,019,089	993,796	940,678
Vermont	404,836	377,987	400,929	399,084	388,399	383,917	395,441	385,901	376,390	366,716
Virgin Islands	66,701	69,063	0	70,426	70,784	71,984	71,894	71,132	71,284	70,672
Virginia	4,853,301	4,184,850	4,317,626	4,203,412	4,436,193	4,276,468	4,512,398	4,366,897	4,192,316	4,075,297
Washington	3,811,920	3,837,744	3,784,183	3,751,683	3,635,702	3,622,857	3,553,994	3,452,669	3,375,160	3,276,000
West Virginia	1,004,031	910,992	927,432	980,575	967,218	940,483	974,090	962,417	954,583	912,228
Wisconsin	3,184,664	3,239,809	3,178,516	3,151,854	3,121,462	3,145,341	3,063,426	2,953,647	2,834,559	2,754,836
Wyoming	255,572	237,588	256,434	259,839	255,790	256,403	251,672	241,316	238,045	235,360
Total	181,307,695	179,761,930	177,641,529	174,861,248	172,043,582	167,472,318	164,526,149	158,386,821	153,266,932	148,103,506

Note: Some previously filed data have been revised. Carriers with under 10,000 lines in a state were not required to report.

Table 10
CLEC-Reported End-User Switched Access Lines by State
(As of June 30, 2004)

State	CLEC-Owned	UNEs	Resold Lines	Total
Alabama	75,687	207,436	81,937	365,060
Alaska	*	*	*	*
Arizona	409,317	267,651	137,225	814,194
Arkansas	45,528	109,809	7,659	162,996
California	1,042,458	2,097,112	584,245	3,723,815
Colorado	155,155	233,794	109,635	498,583
Connecticut	111,173	92,653	68,560	272,385
Delaware	*	51,635	*	92,810
District of Columbia	72,478	81,820	61,123	215,421
Florida	367,481	802,859	614,661	1,785,001
Georgia	182,001	642,173	153,185	977,358
Hawaii	*	*	*	*
Idaho	*	26,147	*	47,398
Illinois	400,253	1,120,585	151,684	1,672,522
Indiana	90,730	357,102	54,104	501,936
Iowa	39,925	144,184	15,006	199,115
Kansas	76,491	215,460	24,994	316,946
Kentucky	83,002	112,320	23,488	218,810
Louisiana	92,830	156,050	34,454	283,333
Maine	19,561	62,679	31,717	113,957
Maryland	115,598	390,141	110,018	615,757
Massachusetts	389,855	416,161	191,744	997,760
Michigan	106,307	1,387,936	81,024	1,575,267
Minnesota	168,751	309,925	125,476	604,152
Mississippi	5,180	97,730	28,308	131,218
Missouri	55,185	321,525	53,828	430,538
Montana	14,791	*	*	19,204
Nebraska	134,835	42,773	27,952	205,560
Nevada	29,872	65,676	54,186	149,735
New Hampshire	65,182	81,302	23,949	170,433
New Jersey	105,458	987,393	226,662	1,319,513
New Mexico	14,600	47,372	14,497	76,469
New York	418,398	2,554,413	711,226	3,684,036
North Carolina	101,286	334,410	140,842	576,538
North Dakota	7,623	*	*	22,502
Ohio	108,441	759,213	112,231	979,885
Oklahoma	138,068	80,649	24,020	242,737
Oregon	34,898	190,756	41,467	267,121
Pennsylvania	573,167	898,723	234,147	1,706,036
Puerto Rico	*	*	*	*
Rhode Island	130,671	70,927	12,189	213,787
South Carolina	28,239	132,739	65,307	226,284
South Dakota	*	*	*	*
Tennessee	94,384	315,897	65,031	475,312
Texas	461,568	1,595,937	262,767	2,320,273
Utah	67,833	141,230	78,946	288,009
Vermont	*	*	*	*
Virgin Islands	0	0	0	0
Virginia	491,614	414,937	88,038	994,588
Washington	148,870	256,327	89,178	494,375
West Virginia	*	*	*	*
Wisconsin	57,631	514,907	54,271	626,809
Wyoming	*	*	*	*
Total	7,487,198	19,356,399	5,139,632	31,983,229

* Data withheld to maintain firm confidentiality.

Table 11
Percentage of Lines Provided to
Residential and Small Business Customers
(As of June 30, 2004)

State	ILECs	CLECs	Total
Alabama	83 %	59 %	80 %
Alaska	80	*	*
Arizona	74	69	73
Arkansas	88	60	85
California	82	70	80
Colorado	77	59	74
Connecticut	87	58	84
Delaware	67	76	68
District of Columbia	26	28	26
Florida	83	47	77
Georgia	78	62	75
Hawaii	83	*	*
Idaho	77	78	77
Illinois	72	73	72
Indiana	76	65	75
Iowa	76	88	78
Kansas	87	62	81
Kentucky	81	77	81
Louisiana	81	71	80
Maine	79	78	79
Maryland	64	69	65
Massachusetts	68	64	67
Michigan	73	77	74
Minnesota	78	64	75
Mississippi	82	78	82
Missouri	87	71	85
Montana	80	75	79
Nebraska	69	69	69
Nevada	75	36	71
New Hampshire	79	65	76
New Jersey	66	67	66
New Mexico	79	53	77
New York	68	68	68
North Carolina	81	52	78
North Dakota	81	93	82
Ohio	77	66	75
Oklahoma	87	68	85
Oregon	82	71	80
Pennsylvania	76	52	71
Puerto Rico	90	*	*
Rhode Island	72	79	74
South Carolina	83	59	80
South Dakota	75	*	*
Tennessee	84	55	80
Texas	85	65	82
Utah	76	63	73
Vermont	72	*	*
Virgin Islands	99	NA	99
Virginia	62	77	65
Washington	79	58	76
West Virginia	79	*	*
Wisconsin	78	61	75
Wyoming	74	*	*
Nationwide	77 %	65 %	75 %

NA -- Not Applicable.

* Data withheld to maintain firm confidentiality.

Table 12
Number of Reporting Local Exchange Carriers
(As of June 30, 2004)

State	ILECs	CLECs	Total
Alabama	9	10	19
Alaska	5	1	6
Arizona	3	13	16
Arkansas	4	5	9
California	8	27	35
Colorado	3	13	16
Connecticut	2	9	11
Delaware	1	4	5
District of Columbia	1	8	9
Florida	8	28	36
Georgia	15	23	38
Hawaii	1	1	2
Idaho	5	5	10
Illinois	6	20	26
Indiana	7	13	20
Iowa	10	11	21
Kansas	6	12	18
Kentucky	10	12	22
Louisiana	5	10	15
Maine	5	5	10
Maryland	2	15	17
Massachusetts	1	15	16
Michigan	7	17	24
Minnesota	20	18	38
Mississippi	6	8	14
Missouri	6	13	19
Montana	7	4	11
Nebraska	6	6	12
Nevada	7	6	13
New Hampshire	4	7	11
New Jersey	2	19	21
New Mexico	4	4	8
New York	7	30	37
North Carolina	16	17	33
North Dakota	9	4	13
Ohio	9	21	30
Oklahoma	11	6	17
Oregon	8	11	19
Pennsylvania	9	24	33
Puerto Rico	1	1	2
Rhode Island	1	5	6
South Carolina	14	15	29
South Dakota	8	3	11
Tennessee	14	15	29
Texas	14	28	42
Utah	6	9	15
Vermont	4	1	5
Virgin Islands	1	0	1
Virginia	5	19	24
Washington	7	14	21
West Virginia	2	2	4
Wisconsin	11	11	22
Wyoming	2	3	5
Nationwide - Unduplicated	185	136	321
Total State Filings [1]	345	601	946
Required Filings [1]	308	549	857
Voluntary Filings [1]	37	52	89

[1] Each report represents all of a company's operations in a given state. Carriers with both ILEC and CLEC operations in the same state provide separate reports

Table 13
Mobile Wireless Telephone Subscribers [1]

State	June 2004		Subscribers										Percent Change Jun 03 - Jun 04
	Carriers [1]	Percent Resold [2]	1999	2000		2001		2002		2003		2004	
			Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	
Alabama	10	8 %	1,080,410	1,253,084	1,386,294	1,930,631	1,979,075	2,027,845	1,987,254	2,100,557	2,242,108	2,301,847	10 %
Alaska	4	5	165,221	169,892	*	218,424	240,216	242,133	267,630	*	303,184	307,323	NA
American Samoa	*	*	0	0	0	0	0	0	0	0	0	*	NA
Arizona	14	6	1,125,321	1,624,668	1,855,115	2,018,410	2,171,021	2,412,998	2,520,058	2,643,952	2,843,061	3,079,657	16
Arkansas	7	5	719,919	715,467	743,928	891,275	970,127	1,130,302	1,156,345	1,351,291	1,296,901	1,376,564	2
California	15	6	8,544,941	12,283,369	12,710,520	14,184,625	15,052,203	16,007,376	17,575,105	18,892,619	20,360,454	21,575,797	14
Colorado	10	4	1,552,718	1,654,989	1,856,075	1,983,405	2,145,816	2,247,166	2,358,748	2,426,929	2,554,731	2,727,910	12
Connecticut	6	4	1,077,089	1,136,618	1,277,123	1,418,367	1,639,914	1,577,873	1,694,110	1,791,944	1,928,988	2,064,204	15
Delaware	6	5	270,848	275,219	371,014	389,284	412,611	433,059	438,196	503,353	543,526	593,452	18
Dist. of Columbia	6	9	346,681	333,815	354,735	382,457	404,489	415,399	472,832	520,182	513,102	555,958	7
Florida	12	15	5,158,079	4,983,478	6,369,985	7,536,670	8,937,063	8,607,715	9,482,349	10,252,348	10,855,430	11,916,615	16
Georgia	12	7	2,538,983	2,687,238	2,754,784	4,076,119	4,149,717	4,300,831	4,497,576	4,709,288	4,940,091	5,332,517	13
Guam	*	*	*	*	0	*	*	*	*	*	*	*	NA
Hawaii	5	1	288,425	454,364	524,291	543,283	595,721	640,247	689,857	732,262	771,023	819,262	12
Idaho	10	11	271,436	296,066	344,564	398,781	444,864	500,693	536,064	572,406	605,488	653,779	14
Illinois	10	6	3,922,482	4,309,660	5,143,767	5,621,044	5,631,172	5,409,370	6,476,683	6,834,217	7,183,989	7,529,966	10
Indiana	8	10	1,318,975	1,717,378	1,715,074	1,781,247	1,921,356	2,032,290	2,390,567	2,456,509	2,642,810	2,844,568	16
Iowa	11	9	774,773	975,629	832,106	861,382	1,087,608	1,157,580	1,239,384	1,250,305	1,342,931	1,445,711	16
Kansas	12	4	669,472	724,024	801,293	901,225	956,050	1,061,171	1,117,277	1,195,230	1,261,242	1,345,160	13
Kentucky	11	9	911,700	999,544	1,026,334	1,176,756	1,405,043	1,505,982	1,456,705	1,595,290	1,812,657	2,000,459	25
Louisiana	10	11	1,227,106	1,294,693	1,306,457	1,677,292	1,920,740	2,187,811	2,190,613	2,365,224	2,470,146	2,547,153	8
Maine	6	1	187,003	283,640	359,786	399,616	427,313	457,835	466,896	524,246	568,159	610,533	16
Maryland	8	5	1,634,625	2,013,058	2,298,651	2,446,818	2,614,216	2,684,441	2,913,943	3,108,086	3,319,605	3,575,747	15
Massachusetts	6	4	1,892,014	2,228,169	2,649,130	2,753,685	2,996,816	3,289,934	3,375,726	3,506,039	3,741,975	3,919,139	12
Michigan	13	8	3,512,813	3,423,535	3,551,719	4,071,091	4,238,399	4,758,538	4,674,980	4,889,269	5,114,259	5,430,637	11
Minnesota	12	10	1,550,411	1,595,560	1,851,430	2,014,317	2,153,857	2,254,895	2,415,033	2,564,783	2,677,472	2,823,079	10
Mississippi	9	12	673,355	509,038	786,577	993,781	1,048,061	1,106,700	1,112,765	1,232,750	1,324,160	1,411,277	14
Missouri	11	6	1,855,452	1,848,775	1,767,411	1,937,684	2,106,599	2,246,430	2,289,831	2,515,325	2,691,255	2,859,953	14
Montana	*	*	*	*	*	*	279,349	291,429	315,512	343,160	373,947	*	NA
Nebraska	9	2	576,296	600,885	659,380	712,685	791,799	838,568	867,810	900,744	937,184	984,355	9
Nevada	8	7	750,335	825,163	684,752	766,581	842,155	895,586	984,486	1,077,380	1,216,838	1,319,684	22
New Hampshire	8	12	280,508	309,263	387,264	445,181	492,390	529,795	525,689	598,504	648,788	686,746	15
New Jersey	6	3	2,289,181	2,750,024	3,575,130	3,896,778	4,283,643	4,531,457	4,587,640	5,392,240	5,799,417	6,326,459	17
New Mexico	10	13	363,827	395,111	443,343	619,582	660,849	735,107	780,855	828,869	859,408	939,091	13
New York	11	5	4,833,816	5,016,524	5,918,136	6,749,096	7,429,249	7,915,526	8,937,683	8,829,070	9,453,613	9,939,759	13
North Carolina	12	8	2,536,068	2,730,178	3,105,811	3,377,331	3,767,598	4,610,120	4,094,715	4,305,521	4,554,723	4,875,916	13
North Dakota	*	*	*	*	*	*	*	245,578	*	*	*	*	NA
Ohio	14	6	3,237,786	3,278,960	4,150,498	4,255,934	4,739,795	4,887,376	5,212,204	5,659,459	5,817,211	6,188,081	9
Oklahoma	13	4	826,637	979,513	1,124,214	1,200,234	1,288,357	1,366,475	1,440,970	1,574,588	1,614,191	1,724,505	10
Oregon	10	5	914,848	1,082,425	1,201,207	1,268,909	1,399,279	1,473,883	1,682,343	1,682,036	1,778,936	1,894,285	13
Pennsylvania	10	6	2,767,474	3,850,372	4,129,186	4,378,216	4,849,085	4,987,067	5,258,844	5,681,653	6,073,573	6,420,037	13
Puerto Rico	6	8	*	1,090,005	757,613	1,374,747	1,128,736	1,136,619	1,516,808	1,401,599	1,631,266	1,698,702	21
Rhode Island	6	4	279,304	313,550	355,889	401,805	456,059	463,636	515,547	527,366	567,331	615,398	17
South Carolina	11	15	1,137,232	1,236,338	1,392,586	1,502,345	1,752,457	1,830,516	1,896,369	2,041,541	2,149,480	2,337,367	14
South Dakota	5	7	*	*	*	*	278,646	292,210	325,114	344,825	365,211	382,906	11
Tennessee	13	5	1,529,054	1,876,444	1,985,851	2,251,208	2,510,978	2,660,068	2,674,566	2,800,735	2,974,512	3,171,487	13
Texas	20	7	5,792,453	6,705,423	7,548,537	8,294,338	9,156,187	9,650,715	10,133,280	10,776,234	11,327,700	12,091,134	12
Utah	9	4	643,824	692,006	750,244	833,492	919,002	970,854	1,052,522	1,094,563	1,154,992	1,229,029	12
Vermont	*	3	*	*	*	*	*	*	*	*	*	*	NA
Virgin Islands	*	25	*	0	0	*	*	*	*	*	*	*	NA
Virginia	11	3	2,262,567	2,447,687	2,708,342	3,059,420	3,270,165	3,429,450	3,753,106	3,879,582	4,147,182	4,392,319	13
Washington	11	6	1,873,475	2,144,767	2,286,082	2,493,214	2,706,030	2,849,043	2,869,784	3,102,750	3,377,193	3,567,896	15
West Virginia	10	5	241,265	347,916	392,384	452,036	498,811	549,722	576,503	579,983	675,257	713,657	23
Wisconsin	11	8	1,525,818	1,342,908	1,698,520	2,008,679	2,229,389	2,523,956	2,396,562	2,533,215	2,723,985	2,831,645	12
Wyoming	5	2	127,634	*	*	173,939	194,665	168,232	191,939	276,344	295,706	277,658	0
Nationwide	85	7 %	79,696,083	90,643,058	101,043,219	114,028,928	123,990,857	130,751,459	138,878,293	147,623,734	157,042,082	167,313,001	13 %

NA -- Not Applicable.

* Data withheld to maintain firm confidentiality.

[1] Carriers with under 10,000 subscribers in a state were not required to report.

[2] Percentage of mobile wireless subscribers receiving their service from a mobile wireless reseller.

Table 14
Percentage of Zip Codes with Competitive Local Exchange Carriers (CLECs)

Number of CLECs	2000		2001		2002		2003		2004
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Zero	46.6 %	44.0 %	40.0 %	38.0 %	0 33.0 %	31.3 %	26.8 %	25.1 %	21.0 %
One	19.7	16.8	16.3	16.8	19.5	19.3	18.6	17.3	15.3
Two	9.1	10.4	9.9	10.0	10.3	10.4	10.0	10.4	9.8
Three	6.9	7.2	8.2	7.7	7.9	6.7	6.7	7.0	7.5
Four	5.0	5.5	5.6	6.1	6.6	6.3	5.6	5.3	6.1
Five	3.9	4.0	4.1	4.5	4.9	5.2	5.0	4.8	5.4
Six	2.4	3.0	3.3	3.8	4.0	4.4	4.4	4.7	5.6
Seven	1.6	2.3	2.6	2.9	3.1	3.5	4.1	4.1	5.4
Eight	1.2	1.7	2.2	2.2	2.5	2.9	3.6	3.7	5.4
Nine	1.1	1.4	1.7	2.1	1.9	2.6	3.1	3.2	4.0
Ten or More	2.5	3.7	5.9	5.9	6.3	7.3	12.2	14.4	14.7

Table 15
Percentage of Households in Zip Codes with Competitive Local Exchange Carriers

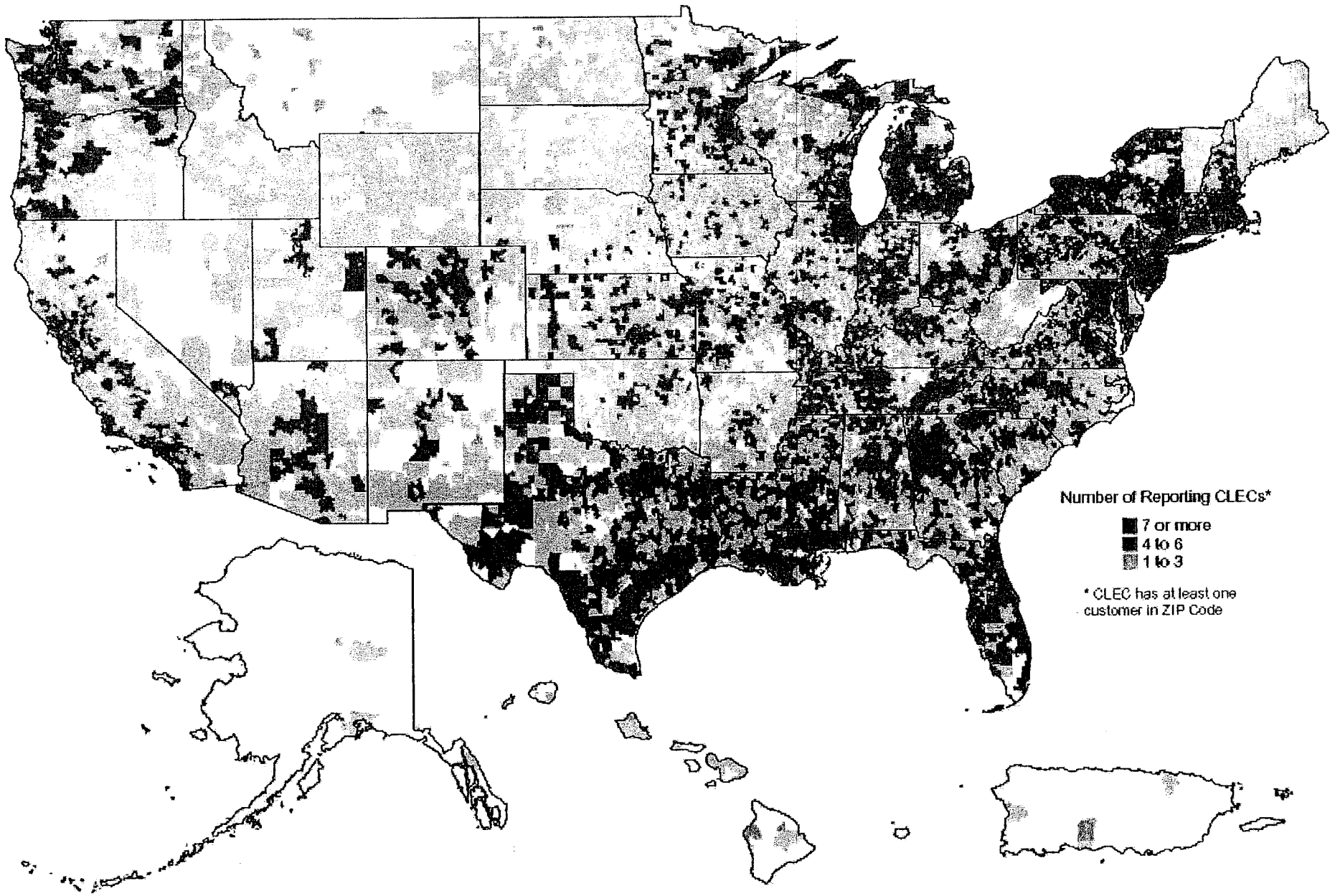
Number of CLECs	2000		2001		2002		2003		2004
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Zero	14.5 %	11.8 %	9.5 %	8.8 %	6.6 %	5.8 %	4.5 %	3.8 %	3.0 %
One	13.5	10.6	9.0	8.5	9.1	8.2	6.5	6.0	4.8
Two	11.9	10.6	8.8	9.7	9.0	8.3	6.1	5.7	4.8
Three	12.5	11.6	11.5	10.8	9.5	7.0	5.4	5.7	4.9
Four	11.1	11.3	10.1	9.7	10.3	8.3	6.0	5.5	5.6
Five	9.6	9.3	8.7	8.8	9.0	8.4	6.8	5.7	5.7
Six	6.4	7.2	7.6	8.0	8.4	8.4	7.1	6.9	7.0
Seven	4.3	6.1	6.0	6.7	7.6	7.6	7.9	6.7	8.1
Eight	3.7	4.9	5.6	5.3	6.0	7.0	8.0	7.4	9.8
Nine	3.7	4.2	4.5	5.3	4.6	7.0	7.2	7.0	8.4
Ten or More	8.9	12.2	18.8	18.3	19.7	23.9	34.6	39.5	37.9

Source: Demographic Power Pack, Current Year Update (2000), MapInfo Corporation
Note: Figures may not add to 100% due to rounding.

Table 16
Percentage of Zip Codes with Competitive Local Exchange Carriers as of June 30, 2004

State	Number of CLECs								
	Zero	One - Three	Four	Five	Six	Seven	Eight	Nine	Ten or More
Alabama	18 %	32 %	12 %	13 %	10 %	7 %	6 %	2 %	0 %
Alaska	87	13	0	0	0	0	0	0	0
Arizona	11	35	6	5	6	7	12	14	5
Arkansas	43	46	10	0	0	0	0	0	0
California	14	32	8	10	9	8	8	5	6
Colorado	21	33	11	8	5	6	8	6	2
Connecticut	2	11	13	16	30	27	1	0	0
Delaware	2	91	7	0	0	0	0	0	0
Dist. of Columbia	0	12	20	28	40	0	0	0	0
Florida	2	12	4	4	5	5	4	5	59
Georgia	13	28	7	3	4	4	5	7	29
Hawaii	52	48	0	0	0	0	0	0	0
Idaho	41	59	0	0	0	0	0	0	0
Illinois	28	30	4	2	6	5	3	2	20
Indiana	8	40	8	8	9	10	11	4	1
Iowa	32	59	5	3	0	0	0	0	0
Kansas	26	41	7	8	5	5	7	1	0
Kentucky	24	46	11	8	3	4	3	1	0
Louisiana	6	28	5	9	13	9	23	7	0
Maine	11	87	2	0	0	0	0	0	0
Maryland	0	10	6	8	11	8	10	10	36
Massachusetts	0	8	6	7	5	7	15	12	40
Michigan	7	19	7	7	7	11	10	12	20
Minnesota	29	34	5	4	5	6	5	9	3
Mississippi	7	40	13	10	14	12	4	0	0
Missouri	42	24	7	3	3	9	7	5	0
Montana	90	10	0	0	0	0	0	0	0
Nebraska	55	35	5	5	0	0	0	0	0
Nevada	29	42	12	14	2	0	0	0	0
New Hampshire	1	43	13	13	13	16	0	0	0
New Jersey	0	3	3	2	2	6	9	7	67
New Mexico	42	43	15	0	0	0	0	0	0
New York	4	13	5	5	5	6	5	5	52
North Carolina	10	47	7	5	4	6	4	5	12
North Dakota	61	39	0	0	0	0	0	0	0
Ohio	9	40	6	5	6	4	6	6	18
Oklahoma	40	40	4	3	13	0	0	0	0
Oregon	19	35	6	5	6	5	12	3	9
Pennsylvania	11	35	8	5	6	6	7	6	16
Puerto Rico	80	20	0	0	0	0	0	0	0
Rhode Island	0	11	9	80	0	0	0	0	0
South Carolina	17	35	9	7	19	11	3	0	0
South Dakota	58	42	0	0	0	0	0	0	0
Tennessee	13	27	8	6	7	4	5	6	22
Texas	11	21	4	4	4	4	6	5	40
Utah	28	38	4	2	11	8	10	0	0
Vermont	66	34	0	0	0	0	0	0	0
Virginia	11	40	8	9	5	5	4	6	13
Washington	19	30	6	7	6	6	7	7	12
West Virginia	46	54	0	0	0	0	0	0	0
Wisconsin	27	38	4	4	9	10	8	0	0
Wyoming	43	57	0	0	0	0	0	0	0
Nationwide	21 %	33 %	6 %	5	6 %	5 %	5 %	4 %	15 %

Reporting CLECs by ZIP Code
(As of June 30, 2004)



Customer Response

Publication: *Local Telephone Competition: Status as of June 30, 2004.*

You can help us provide the best possible information to the public by completing this form and returning it to the Industry Analysis and Technology Division of the FCC's Wireline Competition Bureau.

1. Please check the category that best describes you:
   - ____ press
   - ____ current telecommunications carrier
   - ____ potential telecommunications carrier
   - ____ business customer evaluating vendors/service options
   - ____ consultant, law firm, lobbyist
   - ____ other business customer
   - ____ academic/student
   - ____ residential customer
   - ____ FCC employee
   - ____ other federal government employee
   - ____ state or local government employee
   - ____ Other (please specify)

2.

Please rate the report:	Excellent	Good	Satisfactory	Poor	No opinion
Data accuracy	○	○	○	○	○
Data presentation	○	○	○	○	○
Timeliness of data	○	○	○	○	○
Completeness of data	○	○	○	○	○
Text clarity	○	○	○	○	○
Completeness of text	○	○	○	○	○

3.

Overall, how do you rate this report?	Excellent	Good	Satisfactory	Poor	No opinion
	○	○	○	○	○

4. How can this report be improved?

5. May we contact you to discuss possible improvements?
   Name:
   Telephone #:

To discuss the information in this report, contact: 202-418-0940 or for users of TTY equipment, call 202-418-0484		
Fax this response to	or	Mail this response to
202-418-0520		FCC/WCB/IATD Mail Stop 1600 F Washington, DC 20554

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Alltel Florida, Inc.'s Petition	)
To Reduce Intrastate Switched Network	)
Access Rates In A Revenue Neutral	)
Manner Pursuant to Section 364.164,	)
Florida Statutes	)
	)

David C. Blessing Exhibits

Volume I

Exhibit DCB-0: Composite Exhibit - Tables

Exhibit DCB-1: Belinfante, Alexander; *Telephone Subscribership in the United States (Data Through March 2003)*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 2; Released November 2003.

Exhibit DCB-2: Belinfante, Alexander; *Telephone Subscribership in the United States (Data Through March 2005)*; Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 2; Released May 2005.

Exhibit DCB-3: Florida Statute § 364.164.

Exhibit DCB-4: **(Non-Confidential)** Hatfield HAI 5.0a – Default and ALLTEL-specific model runs plus input changes.

Exhibit DCB-4: **(Confidential)** Hatfield HAI 5.0a – Default and ALLTEL-specific model runs plus input changes.

Exhibit DCB-5: ALLTEL Florida 2004 embedded cost study.

Exhibit DCB-6: Florida Statute § 364.025 Universal Service.

Exhibit DCB-7: In re: *Determination of the cost of basic local telecommunications service, pursuant to Section 364.025, Florida Statues*, Docket No. 980696-TP, Order No. PSC-99-0068-FOF-TP (excerpts).

Exhibit DCB-8: Order No. PSC-96-0680-FOF-TL; Before The Florida Public Service Commission, In Re: Request for Approval of 1995 Depreciation Study by ALLTEL Florida, Inc.; Docket No. 950887-TL; Issued: May 23, 1996.

Exhibit DCB-9: See *Handbook of Telecommunications Economics,* Amsterdam: Elsevier Science, 2001; *Chapter 10,* UNIVERSAL RESIDENTIAL TELEPHONE SERVICE, Michael H. Riordan, *Columbia University,* August 29, 2001.

Exhibit DCB-10: Order No. PSC-03-1469-FOF-TL Florida Public Service Commission; Comprised of Docket No. 030867-TL, In re: Petition by Verizon Florida Inc. to reform intrastate network access and basic local telecommunications rates in accordance with Section 364.164, Florida Statutes; Docket No.. 030868-TL, In re: Petition by Sprint-Florida, Incorporated to reduce intrastate switched network access rates to interstate parity in revenue-neutral manner pursuant to Section 364.164(1), Florida Statutes; Docket No. 030869-TL, In re: Petition for implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.; and Docket No. 030961-TI, In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes.; Issued: December 24, 2003.

Volume II

Exhibit DCB-11: Agustin J. Ros and Karl McDermott, "Are Residential Local Exchange Prices Too Low? Drivers to Competition in the Local Exchange Market and the Impact of Inefficient Prices," in Michael Crew, *Expanding Competition in Regulated Industries,* Kluwer Academic Publishers, 2000.

Exhibit DCB-12: Amended Direct Testimony of Dr. Kenneth Gordon On behalf of Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-Florida Inc. Before the Florida Public Service Commission; in Docket No. 030867-TL, In re: Petition by Verizon Florida Inc. to reform intrastate network access and basic local telecommunications rates in accordance with Section 364.164, Florida Statutes; Docket No.. 030868-TL, In re: Petition by Sprint-Florida, Incorporated to reduce intrastate switched network access rates to interstate parity in revenue-neutral manner pursuant to Section 364.164(1), Florida Statutes; Docket No. 030869-TL, In re: Petition for implementation of Section 364.164, Florida Statutes, by rebalancing rates in a revenue-neutral manner through decreases in intrastate switched access charges with offsetting rate adjustments for basic services, by BellSouth Telecommunications, Inc.; and Docket No. 030961-TI, In re: Flow-through of LEC switched access reductions by IXCs, pursuant to Section 364.163(2), Florida Statutes. See Also Final Order No. PSC-03-1469-FOF-TL, Issued: December 24, 2003.

Exhibit DCB-13: James Eisner and Dale E. Lehman, *Regulatory Behavior and Competitive Entry,* presented at the 14th Annual Western Conference Center for Research in Regulated Industries, June 28, 2001; p. B24.

Exhibit DCB-14: Agustin J. Ros and Aniruddha Banejee, "Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America," *Telecommunications Policy,* 24 (2000) 233-252.

Exhibit DCB-15: Florida Public Service Commission, *Annual Report To The Florida Legislature On The Status Of Competition In The Telecommunications Industry In Florida as of May 31, 2004*, p. 75

Exhibit DCB-16: Unite Communications Systems @ http://www.uniteone.net/index.html.

Exhibit DCB-17: Utopia Net website @ http://www.utopianet.org/.

Exhibit DCB-18: Grant County (Washington State) Public Utility District Zip fiber network website @ http://www.gcpud.org/zipp/zippnews.htm.

Exhibit DCB-19: Chelan County (Washington State) Public Utility District fiber network website @ https://fiber.chelanpud.org/euedu/about_Us/PUD_Fiber/Presentations/

Volume III

Exhibit DCB-20: Wyoming PSC 2005 Annual Telecom Report.

Exhibit DCB-21: Bresnan Communications home page @ http://bresnan.com.

Exhibit DCB-22: Contact Communication's home page @ http://www.contactcom.net/default.htm

Exhibit DCB-23: FCC *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service,* Table 1.1 July 2005.

Exhibit DCB-24: US Census Bureau, 2003 Household Income and Expenditures.

Exhibit DCB-25: CPI - All Urban Consumers - All Items - Year to Year Average Change in CPI; U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C. 20212; Consumer Price Index, All Urban Consumers – (CPI-U), U.S. City Average – All Items.

Exhibit DCB-26: *CTIA - the Wireless Association's Annualized Wireless Industry Survey Results, December 1985 – December 2004 Reflecting Domestic U.S. Commercially-Operational Cellular, ESMR and PCS Providers*, p.2 @ http://www.ctia.org/research_statistics/statistics/index.cfm/AID/10030.

Exhibit DCB-27: National Cable Television Association at http://www.ncta.com. State date from Nielsen Media Research representing January 2005 TV households and September 2004 cable TV households.

Exhibit DCB-28: National Cable Television Association at http://www.ncta.com; Industry Overview, Statistics & Resources, revenue data provided by Kagan Research LLC.

Exhibit DCB-29: "Trends in Telephone Service" - May 2004; FCC Industry Analysis and Technology Division Wireline Competition Bureau, Table 2.5. (June 30, 2003 data).

Volume IV

Exhibit DCB-30: Second Interim Order On Rehearing Before the Illinois Commerce Commission; In re: Illinois Independent Telephone Association Petition for initiation of an investigation of the necessity of and the establishment of a Universal Service Support Fund in accordance with Section 13-301(d) of the Public Utilities Act; Docket 00-0233; Consolidated with Illinois Commerce Commission On Its Own Motion Investigation into the necessity of and, if appropriate, the establishment of a Universal Support Fund pursuant to Section 13-301(d) of the Public Utilities Act; Docket 00-0335; dated: March 13, 2002.

Exhibit DCB-31: Wyoming Public Service Commission "2000 ANNUAL TELECOMMUNICATIONS REPORT" prepared by the Commissioners and Staff of the Wyoming Public Service Commission; January 10, 2000.

Exhibit DCB-32: Florida Statute § 364.10 Lifeline.

Exhibit DCB-33: Robert Crandall and Leonard Waverman, *Who Pays for Universal Service?: When Telephone Subsidies Become Transparent,* Brookings Institute, (2000), pp. 91 - 93.

Exhibit DCB-34: *Senate Staff Analysis and Economic Impact Statement of CS/SB 654 - the Tele-Competition Innovation and Infrastructure Enhancement Act.*, dated April 8, 2003.

Exhibit DCB-35: Verizon Wireless America's Choice Calling Plan for Live Oak, FL found at http://www.verizonwireless.com/b2c/store/.

Exhibit DCB-36: "eBay to Acquire Skype" eBay press release dated September 12, 2005; available at http://investor.ebay.com/downloads/eBay_PressRelease.pdf.

Exhibit DCB-37: Cox Communications website at http://www.cox.com/GainesvilleOcala/

Exhibit DCB-38: Time Warner Inc, Form 10-Q Quarterly Report, Filed 8/3/2005 For Period Ending 6/30/2005.

Exhibit DCB-39: CV of David C. Blessing.

Exhibit DCS-40: *Local Telephone Competition: Status as of June 30, 2004;* Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission; Table 13; Released December 2004.

Dkt. No. _____
B. Willis Ex. No. ____ (BJW-1)
Switched Access Charges

Exhibit 1
SWITCHED ACCESS CHARGES
Intrastate Premium Rates

ALLTEL Florida, Inc.
Current

	Originating	Terminating
Carrier Common Line	0.0304000	0.0382000
Switched Transport		
Local Channel/Entrance Facility*	0.0011437	0.0011437
Switched Common Transport**	0.0007600	0.0007600
Access Tandem Switching	0.0005000	0.0005000
Interconnection Charge	0.0022110	0.0022110
Information Surcharge	0.0000000	0.0000000
End Office		
Local Switching	0.0177000	0.0177000
Feature Group D Access per Minute: Total	0.0527147	0.0605147
Originating + Terminating Access:	0.1132294	

* Local Channel/Entrance Facility

DS1: Per System (monthly)	133.81
Estimated MOU Equivalent* **	0.0011437

** Switched Common Transport (SCT)

Facility (MOU/airline mile)	0.0000400
Termination (MOU/term.)	0.0003600
SCT - Interoffice Channel**	0.0007600

*** Estimated MOU Equivalent = (DS1 monthly charge)/(24 voice grade equivalents x 4,875 MOU).

**** SCT Interoffice Channel = (SCT Termination) + (10 miles x SCT Facility).

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 49
Company/ Alltel
Witness: BeHye J. Willis (BJW-1)
Date: 12/01/05

Dkt. No. _____
B. Willis Ex. No. _____ (BJW-2)
MABC

Exhibit 2
SWITCHED ACCESS CHARGES
Intrastate Premium Rates

ALLTEL Florida, Inc. - MABC
Current

	Originating	Terminating
Carrier Common Line	0.0304000	0.0382000
Switched Transport		
Local Channel/Entrance Facility*	0.0011437	0.0011437
Switched Common Transport**	0.0007600	0.0007600
Access Tandem Switching	0.0005000	0.0005000
Interconnection Charge	0.0218000	0.0218000
Information Surcharge	0.0000000	0.0000000
End Office		
Local Switching	0.0177000	0.0177000
Feature Group D Access per Minute: Total	0.0723037	0.0801037
Originating + Terminating Access:	0.1524074	

* Local Channel/Entrance Facility

DS1: Per System (monthly)	133.81
Estimated MOU Equivalent* **	0.0011437

** Switched Common Transport (SCT)

Facility (MOU/airline mile)	0.0000400
Termination (MOU/term.)	0.0003600
SCT - Interoffice Channel** **	0.0007600

*** Estimated MOU Equivalent = (DS1 monthly charge)/(24 voice grade equivalents x 4,875 MOU).

**** SCT Interoffice Channel = (SCT Termination) + (10 miles x SCT Facility).

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 50
Company/ Alltel
Witness: Bettye J. Willis (BJW-2)
Date: 12/01/05

Dkt. No. _____
B. Willis Ex. No. _____ (BJW-3)
Access Charges Year One

Exhibit 3
SWITCHED ACCESS CHARGES
Intrastate Premium Rates

ALLTEL Florida, Inc.
Year One

	Originating	Terminating
Carrier Common Line	0.028819	0.028819
Switched Transport		
Local Channel/Entrance Facility*	0.0011437	0.0011437
Switched Common Transport**	0.0007600	0.0007600
Access Tandem Switching	0.0005000	0.0005000
Interconnection Charge	0.0000000	0.0000000
Information Surcharge	0.0000000	0.0000000
End Office		
Local Switching	0.0177000	0.0177000
Feature Group D Access per Minute: Total	0.0489223	0.0489223
Composite Per Minute Elements	0.0470187	0.0470187
Originating + Terminating Access:	0.0978447	

* Local Channel/Entrance Facility

DS1: Per System (monthly)	133.81
Estimated MOU Equivalent* **	0.0011437

** Switched Common Transport (SCT)

Facility (MOU/airline mile)	0.0000400
Termination (MOU/term.)	0.0003600
SCT - Interoffice Channel** **	0.0007600

*** Estimated MOU Equivalent = (DS1 monthly charge)/(24 voice grade equivalents x 4,875 MOU).

**** SCT Interoffice Channel = (SCT Termination) + (10 miles x SCT Facility).

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 51
Company/ Alltel
Witness: Bethye J. Willis (BJW-3)
Date: 12/01/05

Dkt. No. _____
B. Willis Ex. No. _____ (BJW-4)
Access Charges Year Two

Exhibit 4
SWITCHED ACCESS CHARGES
Intrastate Premium Rates

ALLTEL Florida, Inc.
Year Two

	Originating	Terminating
Carrier Common Line	0.019437	0.019437
Switched Transport		
Local Channel/Entrance Facility*	0.0011437	0.0011437
Switched Common Transport**	0.0007600	0.0007600
Access Tandem Switching	0.0005000	0.0005000
Interconnection Charge	0.0000000	0.0000000
Information Surcharge	0.0000000	0.0000000
End Office		
Local Switching	0.0177000	0.0177000
Feature Group D Access per Minute: Total	0.0395410	0.0395410
Composite Per Minute Elements	0.0376373	0.0376373
Originating + Terminating Access:	0.0790820	

* Local Channel/Entrance Facility

DS1: Per System (monthly)	133.81
Estimated MOU Equivalent* **	0.0011437

** Switched Common Transport (SCT)

Facility (MOU/airline mile)	0.0000400
Termination (MOU/term.)	0.0003600
SCT - Interoffice Channel** **	0.0007600

*** Estimated MOU Equivalent = (DS1 monthly charge)/(24 voice grade equivalents x 4,875 MOU).

**** SCT Interoffice Channel = (SCT Termination) + (10 miles x SCT Facility).

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 52
Company/ Alltel
Witness: Bethye J. Willis (BJW-4)
Date: 12/01/05

Dkt. No. _____
B. Willis Ex. No. _____ (BJW-5)
Access Charges Year Three

Exhibit 5
SWITCHED ACCESS CHARGES
Intrastate Premium Rates

ALLTEL Florida, Inc.
Year Three

	Originating	Terminating
Carrier Common Line	0.010056	0.010056
Switched Transport		
Local Channel/Entrance Facility*	0.0011437	0.0011437
Switched Common Transport**	0.0007600	0.0007600
Access Tandem Switching	0.0005000	0.0005000
Interconnection Charge	0.0000000	0.0000000
Information Surcharge	0.0000000	0.0000000
End Office		
Local Switching	0.0177000	0.0177000
Feature Group D Access per Minute: Total	0.0301597	0.0301597
Composite Per Minute Elements	0.0282560	0.0282560
Originating + Terminating Access:	0.0603194	

* Local Channel/Entrance Facility

DS1: Per System (monthly)	133.81
Estimated MOU Equivalent* **	0.0011437

** Switched Common Transport (SCT)

Facility (MOU/airline mile)	0.0000400
Termination (MOU/term.)	0.0003600
SCT - Interoffice Channel** **	0.0007600

*** Estimated MOU Equivalent = (DS1 monthly charge)/(24 voice grade equivalents x 4,875 MOU).

**** SCT Interoffice Channel = (SCT Termination) + (10 miles x SCT Facility).

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 53
Company/ Allel
Witness: Bethye J. Willis (BJW-5)
Date: 12/01/05

Exhibit 6
ALLTEL Florida, Inc.
Intrastate Access Revenue Summary

0904 thru 0805	Current Intrastate Access Rate	Current Intrastate Revenue	New Intrastate Access Rate	New Intrastate Revenue	Annual Access Revenue Change
Carrier Common Line					
Terminating per Minute	0.038200	$ [redacted]	0.010056	$ [redacted]	$ (3,679,709)
Originating per Minute	0.030400	$	0.010056	$	$ (1,766,740)
Interconnection Charge					
Residual Interconnection per Minute	0.002211	$ [redacted]	0.000000	$ -	$ (481,360)
Residual Interconnection per Minute (MABC)	0.021800	$	0.000000	$ -	$ (72,387)
Switched Transport-Local Channel/Entrance Facility					
Voice Grade 2W	25.00	$ -	25.00	$ -	$ -
Voice Grade 4W	45.24	$ -	45.24	$ -	$ -
DS1	133.81	$ [redacted]	133.81	$ [redacted]	$ -
DS3	2100.00	$ -	2100.00	$ -	$ -
Switched Transport-Direct Trunked Transport					
Voice Grade - Termination (Fixed)	23.30	$ [redacted]	23.30	$ [redacted]	$ -
Voice Grade - Facility (Per Mile)	1.90	$	1.90	$	$ -
DS1 - Termination (Fixed)	59.75	$	59.75	$	$ -
DS1 - Facility (Per Mile)	16.75	$	16.75	$	$ -
DS3 - Termination (Fixed)	1200.00	$ -	1200.00	$ -	$ -
DS3 - Facility (Per Mile)	175.00	$ -	175.00	$ -	$ -
Switched Transport-Tandem Switched Transport					
Tandem Switched Transport - Termination per Minute	0.000360	$ [redacted]	0.000360	$ [redacted]	$ -
Tandem Switched Transport - Facility per Minute per Mile	0.000040	$	0.000040	$	$ -
Tandem Switching per Minute	0.000500	$	0.000500	$	$ -
Switched Transport-Chargeable Optional Features					
Multiplexing - DS1 to Voice	210.00	$ [redacted]	210.00	$ [redacted]	$ -
Multiplexing - DS3 to DS1	970.00	$ -	970.00	$ -	$ -
End Office					
Local Switching per Minute	0.017700	$ [redacted]	0.017700	$ [redacted]	$ -
Local Switching per Minute (MABC)	0.017700	$	0.017700	$	$ -
Total Switched Access		$ 12,347,097		$ 6,346,902	$ (6,000,195)

Dkt. No. _____
B. Willis Ex. No. _____ (BJW-6)
Access Revenue Summary

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL **Exhibit No.** 54
Company/ Alltel
Witness: Bettye J. Willis (BJW-6)
Date: 12/01/05

ALLTEL Florida, Inc.
Summary of Revenue-Neutral Rate Changes

	Increment 1 Annual Revenue Change	Increment 2 Annual Revenue Change	Increment 3 Annual Revenue Change	Total Annual Revenue Change
INTRASTATE SWITCHED ACCESS ($6 M)	$ (2,050,653.00)	$ (1,974,769.00)	$ (1,974,769.00)	$ (6,000,191.00)

BASIC LOCAL SERVICE	Increment 1 Rate Increase	Increment 1 Annual Revenue Change	Increment 1 Rate Increase	Increment 2 Annual Revenue Change	Increment 1 Rate Increase	Increment 2 Annual Revenue Change	Total Annual Revenue Change
Residential Basic Local Service	$ 2.02	$ 1,757,424.24	$ 2.02	$ 1,757,424.24	$ 2.02	$ 1,757,424.24	$ 5,272,272.72
Business Basic Local Service	$ 1.42	$ 140,597.04	$ 1.42	$ 140,597.04	$ 1.42	$ 140,597.04	$ 421,791.12
Residential Service Connection Charges		$ 148,594.96		$ 58,270.20		$ 57,915.05	$ 264,780.21
Business Service Connection Charges		$ 17,094.53		$ 11,746.05		$ 11,613.45	$ 40,454.03
Total Basic Local Service Increases		$ 2,063,710.77		$ 1,968,037.53		$ 1,967,549.78	$ 5,999,298.08
						over (short)	$ (892.92)

Dkt. No. _____
B. Willis Ex. No. _____ (BJW-7)
Rate Change Neutral Summary
Amended

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 55
Company/ Alltel
Witness: Bethye J. Willis (BJW-7)
Date: 12/01/05

ALLTEL Florida, Inc.
Current and New Basic Rates

	Business 1-Pty			
	Current	Increment 1	Increment 2	Increment 3
Alachua	$25.48	$26.95	$28.42	$29.89
Branford	$31.56	$33.03	$34.50	$35.97
Brooker	$25.48	$26.95	$28.42	$29.89
Callahan	$28.37	$29.84	$31.31	$32.78
Citra	$25.48	$26.95	$28.42	$29.89
Crescent City	$24.85	$26.32	$27.79	$29.26
Dowling Park	$25.16	$26.63	$28.10	$29.57
FL Sh Boys Ranch	$25.16	$26.63	$28.10	$29.57
Florahome	$25.16	$26.63	$28.10	$29.57
Fort White	$31.76	$33.23	$34.70	$36.17
Hastings	$25.48	$26.95	$28.42	$29.89
High Springs	$25.48	$26.95	$28.42	$29.89
Hilliard	$24.13	$25.60	$27.07	$28.54
Interlachen	$25.16	$26.63	$28.10	$29.57
Jasper	$24.13	$25.60	$27.07	$28.54
Jennings	$24.13	$25.60	$27.07	$28.54
Lake Butler	$25.48	$26.95	$28.42	$29.89
Live Oak	$25.16	$26.63	$28.10	$29.57
Luraville	$25.16	$26.63	$28.10	$29.57
Mayo	$25.16	$26.63	$28.10	$29.57
McIntosh	$25.48	$26.95	$28.42	$29.89
Melrose	$25.48	$26.95	$28.42	$29.89
Orange Springs	$25.48	$26.95	$28.42	$29.89
Raiford	$24.85	$26.32	$27.79	$29.26
Waldo	$25.48	$26.95	$28.42	$29.89
Wellborn	$31.56	$33.03	$34.50	$35.97
White Springs	$25.16	$26.63	$28.10	$29.57

Residential			
Current	Increment 1	Increment 2	Increment 3
$10.25	$12.36	$14.47	$16.58
$12.67	$14.78	$16.89	$19.00
$10.25	$12.36	$14.47	$16.58
$11.35	$13.46	$15.57	$17.68
$10.25	$12.36	$14.47	$16.58
$9.89	$12.00	$14.11	$16.22
$10.05	$12.16	$14.27	$16.38
$10.05	$12.16	$14.27	$16.38
$10.05	$12.16	$14.27	$16.38
$12.56	$14.67	$16.78	$18.89
$10.25	$12.36	$14.47	$16.58
$10.25	$12.36	$14.47	$16.58
$9.64	$11.75	$13.86	$15.97
$10.05	$12.16	$14.27	$16.38
$9.64	$11.75	$13.86	$15.97
$9.64	$11.75	$13.86	$15.97
$10.25	$12.36	$14.47	$16.58
$10.05	$12.16	$14.27	$16.38
$10.05	$12.16	$14.27	$16.38
$10.05	$12.16	$14.27	$16.38
$10.25	$12.36	$14.47	$16.58
$10.25	$12.36	$14.47	$16.58
$10.25	$12.36	$14.47	$16.58
$9.89	$12.00	$14.11	$16.22
$10.25	$12.36	$14.47	$16.58
$12.67	$14.78	$16.89	$19.00
$10.05	$12.16	$14.27	$16.38

	Business NRC			
	Current	Increment 1	Increment 2	Increment 3
Service Order Charges				
Primary	$ 22.19	$ 25.00	$ 27.50	$ 30.00
Secondary	$ 15.13	$ 18.00	$ 20.90	$ 23.75
Premise Visit Charge	$ 14.63	$ 20.00	$ 24.00	$ 28.00
Central Office Work	$ 20.18	$ 22.75	$ 23.90	$ 25.00

Residential NRC			
Current	Increment 1	Increment 2	Increment 3
$ 19.17	$ 22.90	$ 24.80	$ 25.00
$ 11.09	$ 12.90	$ 14.25	$ 15.00
$ 14.63	$ 19.85	$ 21.60	$ 25.00
$ 20.18	$ 22.85	$ 23.60	$ 25.00

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 56
Company/ Alltel
Witness: Bettye J. Willis (BJW-8)
Date: 12/01/05

Dkt. No. _____
B. Willis Ex. No. _____ (BJW-8)
Basic Rate Changes 1-4

ALLTEL Florida Rate Rebalancing Proposal
Revenue Impact of Local Rate Increases

$ 2.11

Residential Increases:		Current Rate	August 2005 Units	Current Revenue/mo.	Year 1 Rate	Year 1 Revenue/mo.	Year 1 Rev Increase/mo.	Year 1 Revenue Increase/yr	Year 2 Rate	Year 2 Revenue/mo.	Year 2 Rev Increase/mo.	Year 2 Revenue Increase/yr	Year 3 Rate	Year 3 Revenue/mo.	Year 3 Rev Increase/mo.	Year 3 Revenue Increase/yr
Rate Group 1 - No Exchanges	R1	$9.38			$11.49		$ -		$13.60		$ -		$15.71		$ -	
Rate Group 6 - No Exchanges	R1	$10.73			$12.84		$ -		$14.95		$ -		$17.06		$ -	
Alachua	R1	$10.25			$12.36		$12,292.86		$14.47		$12,292.86		$16.58		$12,292.86	
Branford	R1	$12.67			$14.78		$8,868.33		$16.89		$8,868.33		$19.00		$8,868.33	
Brooker	R1	$10.25			$12.36		$2,816.85		$14.47		$2,816.85		$16.58		$2,816.85	
Callahan	R1	$11.35			$13.46		$12,187.36		$15.57		$12,187.36		$17.68		$12,187.36	
Citra	R1	$10.25			$12.36		$4,435.22		$14.47		$4,435.22		$16.58		$4,435.22	
Crescent City	R1	$9.89			$12.00		$4,017.44		$14.11		$4,017.44		$16.22		$4,017.44	
Dowling Park	R1	$10.05			$12.16		$2,264.03		$14.27		$2,264.03		$16.38		$2,264.03	
FL Sh Boys Ranch	R1	$10.05			$12.16		$1,021.24		$14.27		$1,021.24		$16.38		$1,021.24	
Florahome	R1	$10.05			$12.16		$2,667.04		$14.27		$2,667.04		$16.38		$2,667.04	
Fort White	R1	$12.56			$14.67		$4,245.32		$16.78		$4,245.32		$18.89		$4,245.32	
Hastings	R1	$10.25			$12.36		$4,046.98		$14.47		$4,046.98		$16.58		$4,046.98	
High Springs	R1	$10.25			$12.36		$11,009.98		$14.47		$11,009.98		$16.58		$11,009.98	
Hilliard	R1	$9.64			$11.75		$5,407.93		$13.86		$5,407.93		$15.97		$5,407.93	
Interlachen	R1	$10.05			$12.16		$8,338.72		$14.27		$8,338.72		$16.38		$8,338.72	
Jasper	R1	$9.64			$11.75		$3,578.56		$13.86		$3,578.56		$15.97		$3,578.56	
Jennings	R1	$9.64			$11.75		$3,300.04		$13.86		$3,300.04		$15.97		$3,300.04	
Lake Butler	R1	$10.25			$12.36		$5,678.01		$14.47		$5,678.01		$16.58		$5,678.01	
Live Oak	R1	$10.05			$12.16		$14,776.33		$14.27		$14,776.33		$16.38		$14,776.33	
Luraville	R1	$10.05			$12.16		$3,131.24		$14.27		$3,131.24		$16.38		$3,131.24	
Mayo	R1	$10.05			$12.16		$3,713.60		$14.27		$3,713.60		$16.38		$3,713.60	
McIntosh	R1	$10.25			$12.36		$7,051.62		$14.47		$7,051.62		$16.58		$7,051.62	
Melrose	R1	$10.25			$12.36		$6,357.43		$14.47		$6,357.43		$16.58		$6,357.43	
Orange Springs	R1	$10.25			$12.36		$4,496.41		$14.47		$4,496.41		$16.58		$4,496.41	
Raiford	R1	$9.89			$12.00		$1,088.76		$14.11		$1,088.76		$16.22		$1,088.76	
Waldo	R1	$10.25			$12.36		$3,517.37		$14.47		$3,517.37		$16.58		$3,517.37	
Wellborn	R1	$12.67			$14.78		$3,540.58		$16.89		$3,540.58		$19.00		$3,540.58	
White Springs	R1	$10.05			$12.16		$2,173.30		$14.27		$2,173.30		$16.38		$2,173.30	
Total Per Month			69,205	$726,551.36			$146,022.55				$146,022.55				$146,022.55	
Annualized				$8,718,616.32												

Total Revenue from R1 $5,256,811.80

Dkt. No. _____
B. Willis Ex. No. _____ (BJW-8)
Basic Rate Changes2-4

ALLTEL Florida Rate Rebalancing Proposal
Revenue Impact of Local Rate Increases

BUSINESS RATE INCREASES

$ 1.47

		Current Rates	Aug 2005 Units	Current Monthly Rev	Rate	Revenue/ Month	Year 1 Increase Rev/Month	Annual Revenue Increase	Rate	Revenue/ Month	Year 2 Increase Rev/Month	Annual Revenue Increase	Rate	Revenue/ Month	Year 3 Increase Rev/Month	Annual Revenue Increase
Rate Group 1 - N	B1	$23.46	[redacted]	[redacted]	$24.93	[redacted]	$ -	[redacted]	$26.40	[redacted]	$ -	[redacted]	$27.87	[redacted]	$ -	[redacted]
Rate Group 6 - N	B1	$26.82			$28.29		$ -		$29.76		$ -		$31.23		$ -	
Alachua	B1	$25.48			$26.95		$1,533.21		$28.42		$1,533.21		$29.89		$1,533.21	
Branford	B1	$31.56			$33.03		$538.02		$34.50		$538.02		$35.97		$538.02	
Brooker	B1	$25.48			$26.95		$119.07		$28.42		$119.07		$29.89		$119.07	
Callahan	B1	$28.37			$29.84		$857.01		$31.31		$857.01		$32.78		$857.01	
Citra	B1	$25.48			$26.95		$230.79		$28.42		$230.79		$29.89		$230.79	
Crescent City	B1	$24.85			$26.32		$529.20		$27.79		$529.20		$29.26		$529.20	
Dowling Park	B1	$25.16			$26.63		$64.68		$28.10		$64.68		$29.57		$64.68	
FL Sh Boys Ranch	B1	$25.16			$26.63		$22.05		$28.10		$22.05		$29.57		$22.05	
Florahome	B1	$25.16			$26.63		$86.73		$28.10		$86.73		$29.57		$86.73	
Fort White	B1	$31.76			$33.23		$238.14		$34.70		$238.14		$36.17		$238.14	
Hastings	B1	$25.48			$26.95		$470.40		$28.42		$470.40		$29.89		$470.40	
High Springs	B1	$25.48			$26.95		$917.28		$28.42		$917.28		$29.89		$917.28	
Hilliard	B1	$24.13			$25.60		$579.18		$27.07		$579.18		$28.54		$579.18	
Interlachen	B1	$25.16			$26.63		$363.09		$28.10		$363.09		$29.57		$363.09	
Jasper	B1	$24.13			$25.60		$551.25		$27.07		$551.25		$28.54		$551.25	
Jennings	B1	$24.13			$25.60		$163.17		$27.07		$163.17		$28.54		$163.17	
Lake Butler	B1	$25.48			$26.95		$536.55		$28.42		$536.55		$29.89		$536.55	
Live Oak	B1	$25.16			$26.63		$1,974.21		$28.10		$1,974.21		$29.57		$1,974.21	
Luraville	B1	$25.16			$26.63		$94.08		$28.10		$94.08		$29.57		$94.08	
Mayo	B1	$25.16			$26.63		$408.66		$28.10		$408.66		$29.57		$408.66	
McIntosh	B1	$25.48			$26.95		$632.10		$28.42		$632.10		$29.89		$632.10	
Melrose	B1	$25.48			$26.95		$304.29		$28.42		$304.29		$29.89		$304.29	
Orange Springs	B1	$25.48			$26.95		$102.90		$28.42		$102.90		$29.89		$102.90	
Raiford	B1	$24.85			$26.32		$86.73		$27.79		$86.73		$29.26		$86.73	
Waldo	B1	$25.48			$26.95		$301.35		$28.42		$301.35		$29.89		$301.35	
Wellborn	B1	$31.56			$33.03		$201.39		$34.50		$201.39		$35.97		$201.39	
White Springs	B1	$25.16			$26.63		$223.44		$28.10		$223.44		$29.57		$223.44	
			8251				$12,128.97				$12,128.97				$12,128.97	

Total Revenue Increases from B1 **$436,642.92**

Dkt. No. _____
B. Willis Ex. No. _____ (BJW-8)
Basic Rate Changes 3-4

ALLTEL Florida Rate Rebalancing Proposal
Nonrecurring Rates

Business NRC			Quantity	Current	Increment 1		Increment 2		Increment 3		
	ASOC	Current	Sep'04 to Aug'05	Revenue	Increment 1	Revenue	Increment 2	Revenue	Increment 3	Revenue	
Service Order Charges											
Primary	SOCBR	$ 22.19	[redacted]		$ 25.00	[redacted]	$ 27.50	[redacted]	$ 30.00	[redacted]	
Secondary	SSOBR	$ 15.13			$ 18.00		$ 20.90		$ 23.75		
Premise Visit Charge	PVBR	$ 14.63			$ 20.00		$ 24.00		$ 28.00		
Central Office Work	COB	$ 20.18			$ 22.75		$ 23.90		$ 25.00		
Total Revenue											$ 385,659.30
Revenue Change				[redacted]		[redacted]		[redacted]		[redacted]	[redacted]

Residential NRC			Quantity	Current	Increment 1		Increment 2		Increment 3		
	ASOC	Current	Sep'04 to Aug'05	Revenue	Increment 1	Revenue	Increment 2	Revenue	Increment 3	Revenue	
Service Order Charges											
Primary	SOCRR	$ 19.17	[redacted]		$ 22.90	[redacted]	$ 24.80	[redacted]	$ 25.00	[redacted]	
Secondary	SSORR	$ 11.09			$ 12.90		$ 14.25		$ 15.00		
Premise Visit Charge	PVRR	$ 14.63			$ 19.85		$ 21.60		$ 25.00		
Central Office Work	COR	$ 20.18			$ 22.85		$ 23.60		$ 25.00		
Total Revenue											$2,894,839.70
Revenue Change				[redacted]		[redacted]		[redacted]		[redacted]	[redacted]

Dkt. No. _____
B. Willis Ex. No. _____ (BJW-8)
Basic Rate Changes 4-4

Document Number: 09287-05
Order Number:
Fine/Settlement: N
Filing Date: 09/29/2005
Suffix: TL
Co. Name: ALLTEL Florida, Inc.

Is/Was Confidential: Y
Type: (•) Other
( ) Motion
( ) Order
( ) NOI

DESCRIPTION

ALLTEL (Wahlen) - (CONFIDENTIAL) Highlighted portions of Exhibits BJW-1 through BJW-8 to Bettye J. Willis direct testimony.

CONFIDENTIAL

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 57
Company/ Alltel
Witness: Bettye J. Willis (BJW-9)
Date: 12-01-05

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 58
Company/ Public Counsel
Witness: Percentage of homes w/ tel. By State
Date: 12/01/05

Exh. 58

Table 3
Percentage of Households with a Telephone by State

	2005			
	MARCH		JULY	
	Unit	Avail	Unit	Avail
UNITED STATES	92.4	93.7	94.0	95.1
ALABAMA	90.6	92.6	92.7	93.5
ALASKA	95.2	96.1	94.9	95.9
ARIZONA	93.0	93.8	92.2	93.5
ARKANSAS	87.7	90.4	87.4	91.0
CALIFORNIA	94.5	95.3	96.4	97.1
COLORADO	95.0	96.1	95.8	96.7
CONNECTICUT	92.7	94.5	95.2	95.9
DELAWARE	90.7	91.9	93.7	95.3
DISTRICT OF COLUMBIA	91.2	93.3	93.1	94.5
FLORIDA	91.6	93.6	93.0	94.0
GEORGIA	90.4	92.4	92.2	92.9
HAWAII	95.2	96.7	96.3	96.9
IDAHO	94.8	95.6	95.6	96.8
ILLINOIS	89.1	89.8	90.6	91.8
INDIANA	91.4	92.9	90.9	91.8
IOWA	96.3	97.0	95.6	96.2
KANSAS	93.5	94.5	95.5	96.6
KENTUCKY	90.1	91.6	92.7	94.7
LOUISIANA	89.8	91.3	92.6	94.4
MAINE	95.4	96.6	96.6	97.6
MARYLAND	93.5	94.1	95.6	96.5
MASSACHUSETTS	93.9	94.7	95.2	96.6
MICHIGAN	91.5	93.4	94.0	95.0
MINNESOTA	95.6	97.2	96.5	97.3
MISSISSIPPI	86.7	90.2	89.9	92.7
MISSOURI	92.1	94.4	95.2	96.2
MONTANA	93.3	95.1	94.1	95.4
NEBRASKA	94.5	96.0	94.8	96.5
NEVADA	90.0	91.5	93.1	93.6
NEW HAMPSHIRE	94.4	95.4	97.3	98.4
NEW JERSEY	93.9	95.0	94.7	95.9
NEW MEXICO	92.2	93.8	91.9	93.6
NEW YORK	91.3	92.5	92.7	94.1
NORTH CAROLINA	91.4	92.5	93.8	95.3
NORTH DAKOTA	95.2	95.6	97.5	97.7
OHIO	93.3	93.9	95.0	96.1
OKLAHOMA	90.3	92.2	89.1	90.9
OREGON	94.5	95.4	96.3	97.1
PENNSYLVANIA	94.3	94.9	96.7	97.5
RHODE ISLAND	93.9	94.8	95.7	96.2
SOUTH CAROLINA	93.2	94.8	94.8	96.1
SOUTH DAKOTA	94.7	95.8	96.8	97.4
TENNESSEE	90.5	92.2	93.8	94.7
TEXAS	90.2	91.8	92.2	93.6
UTAH	96.9	97.4	96.8	97.7
VERMONT	96.7	97.9	95.6	96.8
VIRGINIA	91.2	92.4	93.2	94.5
WASHINGTON	96.9	97.8	97.3	97.3
WEST VIRGINIA	91.5	92.5	93.3	95.0
WISCONSIN	94.2	94.8	95.1	96.1
WYOMING	94.0	95.4	96.2	96.6

DN 050693-TL
Alltel Rate Rebalancing Petition
Rate/Cost Comparison

	BCPM 3.1 Cost w/ Defaults	Embedded Cost	HAI 5.0a Run
	$66.37	$41.32	$48.44
Avg. R1 rate --current	$10.49	$10.49	$10.49
Difference	$55.88	$30.83	$37.95
Less: SLC	6.50	6.50	6.50
Difference	$49.38	$24.33	$31.45
R1 access lines	69,205	69,205	69,205
	$3,417,343	$1,683,758	$2,176,497
x 12	$41,008,115	$20,205,092	$26,117,967

Assume cost estimates overstated by 25%; then shortfall is still:

$30,756,086	$15,153,819	$19,588,475

Sources: Exhibit (DCB-0) Table 1; Exhibit (BJW-8, p.2) for access lines

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 050693-TL Exhibit No. 59
Company/ FPSC Staff
Witness: Data from DCB-0 & BJW-8
Date: 12/01/05