

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

IN RE: CONSIDERATION OF BELLSOUTH)	
TELECOMMUNICATIONS, INC.'S ENTRY)	
INTO INTERLATA SERVICES PURSUANT TO)	DOCKET NO. 960786-TL
SECTION 271 OF THE FEDERAL)	
TELECOMMUNICATIONS ACT OF 1996)	

SURREBUTTAL TESTIMONY

OF

WILLIAM E. TAYLOR, Ph.D.

ON BEHALF OF

BELLSOUTH TELECOMMUNICATIONS, INC.

AUGUST 20, 2001

n/c/r/a
Consulting Economists

DOCUMENT NUMBER-DATE

10272 AUG 20 01

FPSC-COMMISSION CLERK

SURREBUTTAL TESTIMONY OF WILLIAM E. TAYLOR, Ph.D.

TABLE OF CONTENTS

	<i>Page</i>
I. INTRODUCTION AND SUMMARY	1
II. ALEC OBJECTIONS TO BELLSOUTH'S PETITION FOR INTERLATA AUTHORITY UNDER SECTION 271 OF THE 1996 ACT	6
III. LOCAL COMPETITION IN FLORIDA	9
1. ALEC MARKET PERFORMANCE AND THE PUBLIC INTEREST	9
2. MARKET SHARE ANALYSIS AND BELLSOUTH'S MARKET PERFORMANCE	20

**ON BEHALF OF BELLSOUTH TELECOMMUNICATIONS, INC.
SURREBUTTAL TESTIMONY OF WILLIAM E. TAYLOR, Ph.D.
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

DOCKET NO. 960786-TL

AUGUST 20, 2001

1 **I. INTRODUCTION AND SUMMARY**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND CURRENT**
3 **POSITION.**

4 A. My name is William E. Taylor. I am Senior Vice President of National Economic
5 Research Associates, Inc. ("NERA"), head of its Communications Practice, and head of its
6 Cambridge office located at One Main Street, Cambridge, Massachusetts 02142.

7 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL, PROFESSIONAL, AND BUSINESS**
8 **EXPERIENCE.**

9 A. I have been an economist for over twenty-five years. I earned a Bachelor of Arts degree
10 from Harvard College in 1968, a Master of Arts degree in Statistics from the University of
11 California at Berkeley in 1970, and a Ph.D. from Berkeley in 1974, specializing in
12 Industrial Organization and Econometrics. For the past twenty-five years, I have taught
13 and published research in the areas of microeconomics, theoretical and applied
14 econometrics, which is the study of statistical methods applied to economic data, and
15 telecommunications policy at academic and research institutions. Specifically, I have
16 taught at the Economics Departments of Cornell University, the Catholic University of
17 Louvain in Belgium, and the Massachusetts Institute of Technology. I have also conducted

1 research at Bell Laboratories and Bell Communications Research, Inc. I have participated
2 in telecommunications regulatory proceedings before several state public service
3 commissions, including the Florida Public Service Commission (“Commission”) in Docket
4 Nos. 900633-TL, 920260-TL, 920385-TL, 980000-SP, 980696-TP, 990750-TP, 000075-
5 TP, and 000121-TP.

6 I have also filed testimony before the Federal Communications Commission
7 (“FCC”) and the Canadian Radio-television Telecommunications Commission on matters
8 concerning incentive regulation, price cap regulation, productivity, access charges, local
9 competition, interLATA competition, interconnection and pricing for economic efficiency.
10 Recently, I was chosen by the Mexican Federal Telecommunications Commission and
11 Telefonos de Mexico (“Telmex”) to arbitrate the renewal of the Telmex price cap plan in
12 Mexico.

13 I have also testified on market power and antitrust issues in federal court. In recent
14 years, I have studied—and testified on—the competitive effects of mergers among major
15 telecommunications firms and of vertical integration and interconnection of
16 telecommunications networks.

17 Finally, I have appeared as a telecommunications commentator on PBS Radio and
18 on The News Hour with Jim Lehrer. My curriculum vita is attached as Exhibit WET-1.

19 **Q. PLEASE DESCRIBE NERA, YOUR PLACE OF EMPLOYMENT.**

20 A. Founded in 1961, National Economic Research Associates or NERA is an internationally
21 known economic consulting firm. It specializes in devising economic solutions to
22 problems involving competition, regulation, finance, and public policy. Currently, NERA

1 has more than 275 professionals (mostly highly experienced and credentialed economists)
2 with 10 offices in the U.S. and overseas offices in Europe (London, Brussels, and Madrid)
3 and Sydney, Australia. In addition, NERA has on staff several internationally renowned
4 academic economists as Special Consultants who provide their professional expertise and
5 testimony when called upon.

6 The Communications Practice, of which I am the head, is a major part of NERA.
7 For over 30 years, it has advised a large number of communications firms both within and
8 outside the U.S. Those include the regional Bell companies and their subsidiaries,
9 independent telephone companies, long distance companies, cable companies, and
10 telephone operations abroad (e.g., Canada, Mexico, Europe, Japan and East Asia,
11 Australia, and South America). In addition, this practice has provided testimony or other
12 input to governmental entities such as the FCC, the Department of Justice, the U.S.
13 Congress, state regulatory commissions and legislatures, and courts of law. Other clients
14 include industry forums like the United States Telephone Association. Last year, the
15 NERA Communications Practice received the *International Business Leadership Award*
16 from the Center for International Business Education and Research at the University of
17 Florida, citing our work on incentive regulation, transfer pricing, technological
18 convergence and opening new markets to competition.

19 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

20 A. I have been asked by BellSouth Telecommunications, Inc. (“BellSouth”)—an incumbent
21 local exchange carrier (“ILEC”)—to address economic and regulatory issues raised in this
22 proceeding in the testimony of Joseph Gillan, on behalf of the Florida Competitive Carriers

1 Association (“FCCA”), and Michael P. Gallagher, on behalf of Florida Digital Network,
2 Inc. (“FDN”). I understand that FCCA represents the interests of the alternative local
3 exchange carriers (“ALECs”) operating in Florida. Specifically, I respond to the
4 contention of Messrs. Gillan and Gallagher that BellSouth is not entitled at present to
5 interLATA authority under Section 271 of the Telecommunications Act of 1996 (“1996
6 Act”). Both would deny BellSouth that authority because, in their view, BellSouth has not
7 yet met its obligations to create the conditions for the emergence of meaningful local
8 exchange competition in Florida.

9 **Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.**

10 A. FCCA and FDN have sponsored testimony in this proceeding that purport to show that (1)
11 meaningful local competition is not occurring in Florida, (2) BellSouth is responsible for
12 the alleged lack of local competition in Florida, and (3) BellSouth’s application for
13 interLATA authority under Section 271 of the 1996 Act should be denied until meaningful
14 and irreversible local competition occurs in Florida.

15 My testimony presents evidence that competitive activity among ALECs has, in
16 fact, been increasing in Florida. More importantly, it cites evidence that ALEC activity
17 increases markedly once the ILEC is granted interLATA authority. This evidence has two
18 important implications:

- 19 1. ALECs, many of whom are also providers of interLATA long distance service, have
20 strategic reasons for delaying or impeding entry by ILECs like BellSouth into the
21 interLATA long distance market. An easy way to do so is to hold themselves back from
22 entering and participating seriously in the local exchange market, so as to create the
23 appearance of a lack of meaningful local competition (at least for residential customers).
24 Once entry into the interLATA long distance market is allowed, however, those ALECs
25 no longer have any strategic or economic interest in refraining from competing

1 vigorously.

2 2. The benefits from interLATA long distance entry by ILECs like BellSouth are not
3 restricted to greater competitive activity in the local exchange market alone.
4 BellSouth's entry will also make the interLATA long distance market more competitive
5 and reduce prices for consumers. In fact, with all carriers free to participate in any
6 telecommunications market segment, innovative and higher quality services and service
7 packages may be expected to be available from all carriers—BellSouth and ALECs
8 alike—and these, in turn, will enhance consumer welfare. Thus, denial of interLATA
9 authority to BellSouth on unsubstantiated grounds would only deny consumers the
10 substantial benefits expected to accrue to them by the 1996 Act.

11 My testimony also disputes the link that Messrs. Gillan and Gallagher have
12 attempted to make between the level of ALEC activity in Florida and BellSouth's terms
13 and conditions for providing access to its network. I demonstrate that there are a whole
14 host of other factors—none of which has anything to do with BellSouth—that can explain
15 churn in the ranks of ALECs.

16 Finally, my testimony explains why the ALEC witnesses' use of market share
17 analysis is inconclusive and misleading, whether to establish the true current state of local
18 competition in Florida, or to predict BellSouth's future market conduct with respect to its
19 competitors. In particular, it explains why, in a market in which BellSouth's market share
20 (whether of lines, revenue, or capacity) is decreasing, a supposedly high market share says
21 nothing about BellSouth's ability to dominate its competitors or to limit competition in any
22 way. In fact, because the 1996 Act has lowered sunk costs and entry barriers for ALECs
23 (by offering three alternative means of entry), local competition has taken hold and become
24 irreversible. In this respect, the fundamental conditions have been created for BellSouth to
25 receive interLATA authority in Florida.

1 **II. ALEC OBJECTIONS TO BELL SOUTH'S PETITION FOR INTERLATA**
2 **AUTHORITY UNDER SECTION 271 OF THE 1996 ACT**

3 **Q. WHAT IS FCCA'S POSITION REGARDING BELL SOUTH'S PETITION FOR**
4 **INTERLATA AUTHORITY UNDER SECTION 271 OF THE 1996 ACT?**

5 A. Mr. Gillan, as FCCA's principal witness, accuses BellSouth [at 3] of having used
6 "obstructionist tactics over the past five years" to make it impossible for the "emergence of
7 measurable and meaningful local competition" in Florida. Evidently, Mr. Gillan believes
8 that there is not only insufficient local competition in Florida today to justify granting
9 BellSouth the interLATA authority it seeks, but also that BellSouth remains in a position to
10 leverage any grant of that authority to achieve "even greater dominance in the *future*."¹

11 Mr. Gillan asks [at 3] that any grant of interLATA authority to BellSouth be
12 predicated on confirmation that BellSouth is providing potential entrants non-
13 discriminatory and cost-based access to its network, and that the acid test for that purpose
14 be that local competition in Florida be "measurable and meaningful."

15 **Q. WHAT EVIDENCE DOES MR. GILLAN SUBMIT TO SUPPORT HIS**
16 **ADVOCACY?**

17 A. Mr. Gillan contends [at 4-5] that BellSouth has exaggerated the amount of local
18 competition actually occurring in Florida. In his view, resale activity is "neither viable nor
19 irreversible," and has actually declined 30 percent in the first quarter of 2001. He also
20 believes that competition based on unbundled network elements ("UNEs") leased from

¹ Emphasis in original.

1 BellSouth is minimal at roughly 2 percent of the market, and that facilities-based
2 competition from ALECs is negligible and oriented only toward the most lucrative
3 customer segment. In a similar vein, Mr. Gallagher disputes [at 5-6] BellSouth's estimates
4 of the extent of local competition (particularly for business customers), and accuses [at 7]
5 BellSouth of having refused to resell its high-speed data service over the UNE loops that
6 FDN uses to provide voice service.

7 In addition, Mr. Gillan devotes much of his testimony attempting to demonstrate
8 that the UNE rates that BellSouth has proposed in its Statement of Generally Available
9 Terms and Conditions ("SGAT") would, if anything, foreclose any meaningful local
10 competition. To overcome this perceived barrier to meaningful local competition in
11 Florida, Mr. Gillan recommends [at 23-26] that the Commission require BellSouth to
12 provide its UNEs (and all possible UNE combinations, including "new combinations") on
13 non-discriminatory terms and at cost-based rates, and to make high-speed data or xDSL
14 services available for resale. Mr. Gillan also asks [at 27] that the Commission step up "its
15 vigilance and regulatory oversight" of BellSouth or to adopt a "structural approach" that
16 would supposedly induce BellSouth to operate in a manner more conducive to a
17 competitive market.

18 **Q. WHAT IS YOUR OVERALL RESPONSE TO THE TESTIMONY OF MESSRS.**
19 **GILLAN AND GALLAGHER?**

20 A. The advocacy in the ALEC witnesses' testimony is clearly structured to serve and secure
21 the ALECs' own economic interests. However, that does not mean that the Commission
22 should only be concerned with the issues that these witnesses raise, or the manner in which

1 they raise them. Evidently, their testimony is designed to make two points:

- 2 1. Meaningful local competition is not occurring in Florida.
- 3 2. Meaningful local competition cannot occur in Florida unless certain remedial measures
4 are taken. At a minimum, BellSouth must be denied its petition for interLATA
5 authority under Section 271 of the 1996 Act.

6 My testimony questions the basis of the first of those conclusions and the ALEC
7 witnesses' reading of the available data on local competition. It also disputes the narrow
8 public interest focus implicit in their testimony. For example, they appear to overlook
9 completely the 1996 Act's intent to promote competition in *all* telecommunications
10 markets. Although the FCC has predicated interLATA authority for BellSouth (and other
11 Regional Bell Operating Companies or "RBOCs") on the creation of conditions that favor
12 competitive entry in local exchange markets, it has *not* established a litmus test (in terms of
13 market share or anything else) for that threshold level of local competition. Besides, the
14 Commission has a legitimate interest in considering the benefits that *both* local competition
15 and greater long distance competition would bring to consumers in Florida. The narrow
16 focus of the ALEC testimony attempts, in effect, to obscure the immense public interest
17 value that would stem from BellSouth's entry into the in-region long distance market. The
18 ALEC witnesses also overlook mounting evidence that local competition and ALEC
19 activity are, in fact, more likely to grow when the incumbent RBOC is granted interLATA
20 authority than when the status quo is maintained.

21 As for the second conclusion, it appears that the ALEC witnesses (principally
22 Mr. Gillan) is asking the Commission to apply measures that, by any standard, are
23 excessive and even draconian for ensuring that BellSouth does its part to facilitate the
24 growth of local competition. If the SGAT rates are found wanting in any way, then the

1 Commission would surely engage the relevant parties to determine how they would need to
2 be modified to meet the FCC's rules (based on the 1996 Act) for non-discriminatory and
3 cost-based access to UNEs. In fact, that very process has been completed in Florida with
4 an Order by the Commission in Docket No. 990649-TP. However, the conditioning of
5 BellSouth's interLATA authority on some unspecified or vague threshold of local
6 competition is wholly unnecessary and contrary to the public interest.

7 **III. LOCAL COMPETITION IN FLORIDA**

8 **1. ALEC Market Performance and the Public Interest**

9 **Q. BOTH MR. GILLAN AND MR. GALLAGHER DISPUTE BELLSOUTH'S CLAIM**
10 **THAT LOCAL COMPETITION IS OCCURRING IN FLORIDA. DO YOU**
11 **AGREE WITH THEIR POSITION ON THE MATTER?**

12 A. No. The ALEC witnesses complain that local competition is, if anything, on the decline in
13 Florida, and then affix the blame for that fully on BellSouth and the manner in which it has
14 priced its UNEs or resold its advanced data services. I disagree with both their assessment
15 of the state of local competition and the putative role that BellSouth may have in the course
16 that competition has taken in Florida.

17 **Q. WHAT IS YOUR PRIMARY DISAGREEMENT WITH THE ALEC WITNESSES**
18 **IN THIS REGARD?**

19 A. The ALEC witnesses are mistaken in connecting the manner in which BellSouth provides
20 access to its network to potential entrants to what they consider to be a very low level of
21 actual local competition in Florida. While I address the latter point about the actual state of

1 local competition later, I do not accept the connection that these witnesses make. For
2 example, he states [at 7]:

3 Importantly, BellSouth's empirical estimates of competition are inconsistent
4 with other evidence, while its anecdotal information relies heavily on the early
5 (and presumptive) announcements by ALECs that have either experienced
6 financial difficulty or deployed technologies that fell well short of expectations.
7 Far from illustrating a competitive local marketplace in Florida, the underlying
8 data demonstrates that the promise of a competitive local market in Florida
9 remains an elusive goal.

10 I find this statement remarkably candid in its recognition of various factors—none
11 of which has anything to do with BellSouth—that have hampered, delayed, or otherwise
12 stalled entry by several prospective ALECs. By now, we are all familiar with the recent
13 changes in the economy, in general, and in capital markets, in particular, which have
14 adversely affected the financial integrity and risk-taking ability of new entrants. The churn
15 experienced by those prospective entrants is nothing unique to (1) Florida, (2) the
16 telecommunications industry, or (3) this most recent period in history. Moreover, it is the
17 nature of competition that entrants succeed or fail because what they do or try sometimes
18 works and sometimes doesn't. In most markets, there are no guarantees—or guarantors—
19 of successful entry. Although the protections and the assistance provided to entrants in the
20 telecommunications industry surpass greatly those available in non-regulated industries or
21 markets, there is no denying the possibility that the business cycle or the entrants' own
22 actions contribute in large part to determining how successfully competition can take root
23 or grow. None of this may have anything to do with the behavior and conduct of the
24 incumbent firm.

25 **Q. COULDN'T, AS MR. GILLAN SUGGESTS, BELLSOUTH'S BEHAVIOR**

1 **TOWARDS ITS RIVALS HAVE ANY EFFECT ON THE STATE OF LOCAL**
2 **COMPETITION IN FLORIDA?**

3 A. Of course it could. After all, BellSouth is the incumbent carrier that once was the sole
4 owner of network facilities and provider of services within its service territory. However,
5 having recognized just how expensive it could be for competitors to enter using solely their
6 own facilities, the 1996 Act and subsequent FCC rules have guaranteed that entry could
7 occur initially by easier means, e.g., through resale of the incumbent's retail services and
8 cost-based and non-discriminatory access to essential network elements and platforms. I
9 do not disagree with Mr. Gillan that if BellSouth were to evade providing these means of
10 entry to potential rivals, competitive entry would be disrupted. However, neither he nor
11 Mr. Gallagher have offered substantive proof that BellSouth has provided inadequate
12 access to its network. Nor have they shown any clear connection between BellSouth's
13 market conduct and the performance and economic fortunes of its new local exchange
14 rivals in Florida.²

15 Providing non-discriminatory and cost-based access to BellSouth's network reduces
16 and eliminates barriers to entry that competitors would otherwise face. However,
17 removing entry barriers does not, by itself, guarantee successful entry and operation by new
18 ALECs. Any supposed failure of "meaningful" local competition in Florida can also be
19 explained by a host of other factors, including, but not limited to, the following.

- 20 1. New carriers may experience crippling financial difficulties, particularly in tight capital

² See, e.g., testimony by BellSouth witness Thomas Williams in this proceeding which counters Mr. Gallagher's charge that FDN is precluded from providing high-speed data service over BellSouth's Digital Loop Carrier facilities when FDN is the voice service provider.

- 1 or credit markets where continued dependence on venture capital becomes problematic.
- 2 2. Entrants may adopt technologies that are not cost-effective or market strategies that do
3 not appeal to customers.
- 4 3. In some markets, new carriers must compete against inefficient retail market prices, e.g.,
5 where universal service obligations set up implicit or explicit subsidies that make
6 competition in the local exchange difficult and unattractive.
- 7 4. Finally, carriers who already provide interLATA services may have their own strategic
8 reasons to delay entry or serious participation in the market.

9 Where ALECs avoid these problems, entry has been more brisk, e.g., to serve
10 business local exchange customers. Also, ALEC entry, as a rule, has been greater in the
11 more populous and industrialized states than in the more rural or less populous states. For
12 example, according to a recent FCC report (see *infra*, fn. 3), the states with double-digit
13 ALEC access line market share were, in order, New York, Minnesota, Louisiana, Kansas,
14 Texas, Massachusetts, Georgia, Illinois, Iowa, and Pennsylvania. Highly averaged access
15 line charges frequently make it difficult for local exchange carriers to recover their line and
16 service costs in the sparsely populated states and, hence, make entry less attractive to
17 ALECs.

18 All of these factors can have a direct bearing on the course of local competition in
19 Florida, even though Mr. Gillan would prefer that the Commission's spotlight remain
20 trained solely on BellSouth's market conduct.

21 **Q. HOW DO YOU RESPOND TO THE EXAMPLE THAT MR. GALLAGHER**
22 **PROVIDES [AT 6-7] WHICH PURPORTS TO SHOW THAT EVEN IN A**
23 **“MARKET” LIKE ORLANDO, WHICH HAS A HIGH CONCENTRATION OF**
24 **BUSINESS CUSTOMERS, THE ALEC “SHARE” OF THOSE CUSTOMERS IS**
25 **ONLY ABOUT 7 PERCENT?**

1 A. Mr. Gallagher's "analysis" of the Orlando "market" and his calculation of the likely ALEC
2 share of business customers in that market does not establish cause and effect. That is, it
3 does not prove that BellSouth or, more generally, any lack of competition is at fault for the
4 allegedly low ALEC success rate at signing up business customers in the Orlando area.
5 Assuming for the moment that the 7.2 percent ALEC share calculated by Mr. Gallagher is
6 approximately correct—which may not be the case at all—that is not *per se* evidence of
7 either insufficient local competition or BellSouth's obstruction of competition. There is
8 nothing in Mr. Gallagher's analysis to indicate whether business customers in the Orlando
9 area have somehow been shielded from competition by BellSouth, such as by BellSouth
10 making it impossible for the ALECs to have access to those customers.

11 **Q. THE ALEC WITNESSES POINT TO THE RECENT FINANCIAL WOES OF**
12 **SOME ALECS TO SUGGEST THAT LOCAL COMPETITION MAY NOT**
13 **OCCUR OR BE PERMANENT. DO YOU AGREE?**

14 A. Absolutely not. There is virtually no chance that competition will disappear or even
15 significantly recede in the local exchange even if particular competitors exit the market.
16 First, the major competitors are not "start-up" ALECs; many substantial firms compete in
17 Florida and elsewhere, including AT&T (and its Teleport subsidiary), WorldCom (and its
18 MCI Metro and MFS subsidiaries), Time Warner, and other members of the FCCA. In fact
19 the major competitors are not really "ALECs," *per se*. They are more accurately
20 characterized as diversified telecommunications service providers.

21 Second, the number of lines served by competitors has been growing vigorously—
22 especially in the last year. ALECs have made substantial sunk investments between 1997

1 and 2000.³ This substantial sunk investment clearly demonstrates that competition is
2 permanent. Local competitors, as a whole, will not walk away from this substantial sunk
3 investment.

4 Third, the current travails of some ALECs are a normal part of the competitive
5 process. For example, a telecommunications analyst noted recently:

6 Statistically speaking, the CLEC industry is performing at a phenomenal rate
7 when compared with how other industries performed in their startup phase, such
8 as the automobile, railroad or PC industries. Admittedly, as the industry
9 approaches the five-year mark, we are witnessing some fallout, but what we
10 should be focusing on is the impressive success of the CLEC market. According
11 to the most conservative of estimates, approximately 50 percent of all startups
12 fail by the fifth year. If this is true then the CLEC industry should be lauded as
13 truly exceptional. ... NPRG [New Paradigm Resources Group] reports 223
14 CLECs as of late 2000, thus making the failure rate due to a bankruptcy filing a
15 measly 4 percent.⁴

16 Finally, and most importantly, even if some individual ALECs exit the local
17 market, the remaining competitors are likely to purchase their assets (in the case of a
18 facilities-based ALEC) and/or take over their customer bases. This would strengthen the
19 purchaser's network and product mix and, ultimately, strengthen competition.⁵ Mr.

³ According to the Association for Local Telecommunications Services ("ALTS"), ALECs invested over \$55 billion in infrastructure nationally between 1997 and 2000. David A. Wolcott, Director, Public Policy Research, ALTS, "An ALTS Analysis: Local Competition Policy & The New Economy," February 2, 2001: 4; available at www.alts.org <<http://www.alts.org>>, retrieved May 10, 2001. A similar figure (\$56 billion) was cited in another ALTS report, *See* The Association for Local Telecommunications Services, "The State of Local Competition 2001," February 2001: 4.

⁴ Robert A. Saunders, Senior Analyst, "Evolution in Action," Eastern Management Group, March 16, 2001, available at <http://www.teledotcom.com/article/TEL20010316S0004>, retrieved June 8, 2001.

⁵ As Mr. Saunders states: "the very factors that are currently challenging the industry will ultimately lead to the development of a strong and viable CLEC sector. Companies that are doing well now will most likely continue to succeed due to experienced management, financial discipline, strategic acquisition and strong customer service. Other companies will rise up to replace the ones that fall along the way, learning from past mistakes and leveraging new technologies to more efficiently compete with incumbents." *Id.*

1 Gallagher's concern [at 5] that a significant fraction of ALECs in Florida have exited the
2 market over the past year is, therefore, misplaced. A reduction in the *number of*
3 *competitors* is not tantamount to a reduction in *competition* itself.

4 **Q. IS IT LIKELY THAT THE APPARENT SHAKEOUT AMONG ALECS WILL**
5 **LEAD TO STRONGER COMPETITION?**

6 A. Yes. The current apparent shakeout, including consolidations and acquisitions, will result
7 in robust, viable competition. Although a few competitors are struggling and might even
8 go out of business, there is little chance that the competition faced by BellSouth will
9 become ineffective or anything less than permanent. Indeed competitors have been
10 becoming larger in terms of revenue, geographic reach, and service lines, better able to take
11 advantage of economies of scale and scope, and more credible with customers (allowing
12 them to experience lower churn rates). Thus, there can be no lasting long-term negative
13 effect even if a number of the smaller competitors do not survive as separate entities. One
14 industry source accurately summarized the situation this way:

15 Expect the strong CLECs to bulk up this year, while the weaker ones turn into
16 road kill on the Information Superhighway. Although many carriers are facing
17 slowing sales, plummeting stock prices and possible bankruptcy, many CLECs
18 have found their niche and will survive the economic storm.⁶

19 **Q. PLEASE EXPLAIN WHAT STRATEGIC REASONS POTENTIAL**
20 **COMPETITORS MAY HAVE FOR DELAYING THEIR ENTRY AND SERIOUS**
21 **PARTICIPATION IN THE LOCAL EXCHANGE MARKET.**

⁶ R. Pringle, "CLEC Shopping Days?" *Communications Today*, 7(36), February 26, 2001.

1 A. Once the 1996 Act has been fully implemented, the telecommunications industry will see
2 vigorous competition in each of its market segments. For the longest time, interstate long
3 distance markets were kept insulated from competition from ILECs, even as those ILECs
4 did not have to face competition from other carriers in local exchange markets. Reciprocal
5 entry into each other's markets now would leave these carriers with both opportunities and
6 problems. Obviously, the greatest opportunity in these seamless markets with all service
7 prohibitions lifted would be for a carrier—be it an erstwhile local exchange carrier or an
8 erstwhile long distance carrier—to offer comprehensive service combinations on attractive
9 terms (such as term and volume discounts, one-source billing, comprehensive customer
10 service, etc.). On the flip side, the greatest problem would be for a carrier to protect its
11 customers and profit margins from its traditional services, even as it deals with new
12 competitors for those services and tries itself to break into new market segments.

13 With economic incentives shaped in this manner, it is perfectly understandable for
14 both ILECs and long distance carriers to want to act in ways that protect their positions in
15 their traditional lines of business for as long as possible. The difference, of course, is that
16 while the 1996 Act imposes a duty on ILECs like BellSouth to perform market-opening
17 functions, there is no corresponding or reciprocal duty on long distance carriers.
18 Accordingly, the long distance carriers—many of which are manifestly interested in
19 assuming the role of ALECs in the local exchange market—have strategic reasons to delay
20 entry by BellSouth and other RBOCs into the interstate long distance market. Here, too,
21 the fundamental asymmetry is striking: even though the public interest would be well
22 served by additional competition for long distance services, there is little attempt to

1 examine or discuss that possibility. Rather, there has been a concerted effort all around the
2 country to impede RBOC entry into the interstate interLATA long distance market, even
3 after those RBOCs have satisfied various state regulatory agencies about their compliance
4 with the requirements of Sections 271 and 272 of the 1996 Act.

5 **Q. IS THIS SUPPOSEDLY STRATEGIC ATTEMPT TO DELAY RBOCs' RECEIPT**
6 **OF INTERLATA AUTHORITY MERELY A MATTER OF SPECULATION ON**
7 **YOUR PART?**

8 A. Not at all. First, it is important to recognize that with roughly equal-sized annual revenues
9 in the local exchange and interstate long distance markets *both* sides have economic
10 incentives to delay or block further competition.⁷ However, the duties imposed on RBOCs
11 like BellSouth by the 1996 Act and FCC rules make it much more difficult for the RBOCs
12 to impede the development of local competition. The long distance carriers and would-be
13 ALECs face no corresponding burden in delaying RBOC entry into interLATA markets.

14 Second, there is now increasing evidence that the strategy of stalling and blocking
15 interLATA authority for RBOCs is rapidly abandoned once the FCC, in fact, grants such
16 authority in any given state. In fact, FCC and other sources now confirm that ALEC entry
17 and participation have increased significantly *after* interLATA authority was granted to the
18 RBOCs. This abrupt turnabout only substantiates the conclusion that any perceived lack of
19 local competition can be attributed to strategic game-playing by long distance carriers who

⁷ Recent FCC data show that revenues from local and long distance services were \$112 billion and \$108 billion, respectively, in 1999. FCC, *Telecommunications Industry Revenue: 1999*, Industry Analysis Division, Common Carrier Bureau, September 2000.

1 are typically the most well-resourced and durable ALECs to enter local markets.

2 **Q. PLEASE ELABORATE ON THE GROWING EVIDENCE IN THIS REGARD.**

3 A. A recently released FCC report offers startling evidence on how quickly ALEC competitive
4 activity has increased in New York and Texas, the first two states to win FCC approval for
5 their incumbent RBOCs (Verizon and SBC, respectively) to offer in-region interLATA
6 long distance services.⁸

7 According to this report:⁹

- 8 1. 20 percent of end-user lines in New York were served by ALECs (the most of any state)
9 as of December 31, 2000, a full year since Verizon received interLATA authority in the
10 state. This was up from 9 percent at the end of 1999. ILEC-served lines actually
11 declined by over 1.7 million (14 percent) during that year, while ALEC-served lines
12 gained by over 1.5 million (132 percent).
- 13 2. 12 percent of end-user lines in Texas were served by ALECs (fifth highest among all
14 states) as of December 31, 2000, six months since SBC received interLATA authority in
15 the state. This was up from 4 percent at the end of 1999. ILEC-served lines actually
16 declined by over 538,000 (4 percent) during that year, while ALEC-served lines gained
17 by over 1.1 million (188 percent). ALECs added 644,980 lines in the second half of
18 2000 alone (following the grant of interLATA authority for SBC), or nearly 60 percent
19 of the annual gain in 2000.
- 20 3. Of the 27 states for which complete data on end-user lines were available from both
21 1999 and 2000, only Virginia exceeded the impressive rate of growth of end-user lines
22 served by ALECs in New York and Texas.
- 23 4. ALEC's share of end-user lines in New York and Texas were higher by 150 and 50
24 percent, respectively, than the ALEC share nationwide (8 percent).
- 25 5. As of December 31, 2000, Texas and New York had the highest and second highest
26 number of ALECs (at 25 and 23, respectively) in operation. Also, they had the second
27 and third highest percentage—after Florida—of Zip Codes with seven or more

⁸ FCC, *Local Telephone Competition: Status as of December 31, 2000*, Industry Analysis Division, Common Carrier Bureau, May 2001. Also see the accompanying news release "Federal Communications Commission Releases Latest Data on Local Telephone Competition."

⁹ See, in particular, Tables 6, 8, and 12, and Table 4 of another FCC report, *Local Telephone Competition at the New Millennium*, Industry Analysis Division, Common Carrier Bureau, August 2000.

1 operational ALECs (at 36 and 32 percent, respectively). In contrast, among the most
2 populous states, New York and Texas had among the lowest percentage of Zip Codes
3 not served by any ALEC at all (at 16 and 7 percent, respectively).

4 Taken together, these statistics reveal the degree to which increased competitive
5 activity in the local exchange market is associated with states in which the incumbent
6 RBOCs have received interLATA authority from the FCC. From the standpoint of
7 economic incentives, it makes sense that ALEC activity should be so pronounced in the
8 larger and more populous states in which all remaining barriers to competition in all market
9 segments have been removed.

10 **Q. IS THERE ANY OTHER EVIDENCE ON THIS ISSUE?**

11 A. Yes. A recent study conducted by Professor J. A. Hausman at the Massachusetts Institute
12 of Technology compared the effects of long distance entry by Verizon in New York and
13 SBC in Texas with those of the status quo in two control states, Pennsylvania and
14 California. Professor Hausman used Pennsylvania and California as statistical control
15 groups for New York and Texas (respectively) because the states are similar with respect to
16 LATAs, ILEC ownership structure, and geography, and differ mainly by whether the ILEC
17 has received Section 271 authority.

18 The Hausman study found that basic local service bills fell by 6.6 percent in New
19 York after Verizon received interLATA authority and by 2.8 percent in Texas after SBC
20 received interLATA authority. More importantly for present purposes, the study estimated
21 that ALECs' revenue market share for local services rose dramatically in New York and
22 Texas, relative to the control states, after interLATA authority was granted. In New York,
23 market share rose from 3.5 percent to 17.2 percent (compared to Pennsylvania's 1.1

1 percentage point gain) and, in Texas, the gain in market share was from 8 percent to 15.1
2 percent (compared to California's 0.9 percentage point gain).

3 In addition, the Hausman study found that long distance entry by Verizon in New
4 York and SBC in Texas induced substantially greater reductions in long distance prices in
5 those states than were observed in the control states following FCC action to reduce
6 interstate access charges. Professor Hausman estimated that long distance prices were 9-14
7 percent lower in New York than they would have been without interLATA authority for
8 Verizon, and 19-24 percent lower in Texas than they would have been without interLATA
9 authority for SBC.

10 These findings are significant for two reasons. First, they present the first and most
11 comprehensive comparison to date of the differential experiences of comparable states that
12 differ primarily in that one has allowed long distance entry by the ILEC and the other has
13 not. The use of control states puts the post-long distance entry experience of New York
14 and Texas in the proper perspective. Second, they confirm the FCC's survey-based report
15 that competitive activity *in the local exchange markets* increased dramatically after the two
16 states were allowed to have unfettered long distance competition. From the public interest
17 standpoint, therefore, the consumer benefits of granting interLATA authority to RBOCs
18 like BellSouth are two-pronged: (1) bill savings and welfare gains from significantly lower
19 long distance prices and (2) lower local service bills and greater ALEC penetration.

20 **2. Market Share Analysis and BellSouth's Market Performance**

21 **Q. MR. GILLAN ALLEGES THAT THE VARIOUS INDICATORS OF ENTRY**
22 **(RESALE, UNE-BASED, AND OWN FACILITIES-BASED) IN FLORIDA DO NOT**

1 **PAINT A HOPEFUL PICTURE ABOUT LOCAL COMPETITION IN FLORIDA.**

2 **DO YOU ACCEPT HIS ANALYSIS AND CONCLUSIONS?**

3 A. No. Mr. Gillan's conclusions are unacceptable because his analysis is flawed and his
4 conclusions are incorrect. As discussed above, recent statistics (especially those released
5 by the FCC) paint a far more optimistic picture about ALEC activity, particularly *in*
6 *response to* the grant of interLATA authority to the incumbent RBOC. Also, although Mr.
7 Gillan concludes that it must be BellSouth's fault that ALEC activity in Florida is, in his
8 view, anemic, the Commission should keep in view the host of other factors (discussed
9 above) which have a direct and non-negligible effect on such activity.

10 Mr. Gillan contends [at 9] that the resale-based entry "is declining rapidly, and at a
11 rate far faster than gains in either UNE-P or loops individually. ... Nearly 25% of the
12 competitive activity that BellSouth claims exists ... are [sic] based on an entry strategy that
13 is not only not irreversible, it is in full reverse already." First, Mr. Gillan's conclusion that
14 the number of resold lines is rapidly declining stems from an incorrect interpretation of the
15 data, as discussed in the rebuttal testimony of BellSouth witness Cynthia Cox.

16 Second, even if resale demand were falling or were not growing at an increasing
17 rate, one cannot conclude that local competition has failed. The role of resale in
18 telecommunications is transitional. It is a mechanism to allow entrants to compete in mass
19 markets without having to deploy a ubiquitous network, much as MCI and Sprint were able
20 to do in the early days of long distance competition by reselling AT&T services. In the
21 long run, resale is not expected to be as profitable as facilities-based entry: resale-based
22 entry makes it more difficult for ALECs to differentiate their services or add their own

1 innovative features (a matter that Mr. Gillan recognizes, at 9) and is, therefore, not ideal for
2 ALECs eager to offer tangible alternatives to the ILEC's services. However, as an entry
3 strategy, resale serves ALECs well in areas where wholesale facility costs exceed the retail
4 prices that ILECs are allowed to charge.

5 Third, the period identified by Mr. Gillan is also one in which the UNE platform
6 (combined loop and switching) has been made available to ALECs. As UNE-P is
7 functionally similar and significantly cheaper than resale, it is not surprising that ALECs
8 would substitute UNE-P facilities for resale.

9 Finally, such substitution is entirely consistent with the U.S. Department of
10 Justice's concept of irreversible competition, Mr. Gillan's claim to the contrary
11 notwithstanding. The irreversibility standard for competition was developed for the Justice
12 Department by Professor Marius Schwartz and is described as follows:

13 The foregoing analysis persuades me that BOC entry is appropriate when, and
14 only when, the market in the state has been irreversibly opened to local
15 competition....Opening the market does not require evidence of local
16 competition of all forms and in all regions of a state sufficient to substantially
17 discipline BOC market power. The Act aims to let market forces determine
18 what forms of entry work best and where...¹⁰

19 By this standard, entry and operation by ALECs, taken as a *group*, should become
20 irreversible before local competition can be said to have taken hold. Most importantly, it is

¹⁰ Affidavit of Marius Schwartz, "Competitive Implications of Bell Operating Company Entry into Long Distance Telecommunications Services," May 14, 1997, filed with the FCC as an appendix to the Department of Justice's evaluation of SBC's application to provide interLATA services in Oklahoma, May 16, 1997, *In the Matter of Application of SBC Communications, Inc. Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in Oklahoma*, CC Docket No. 97-121, and of Ameritech's application in Michigan, June 25, 1997, *In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in Michigan*, CC Docket No. 97-137.

1 competitive entry *in general* that should be irreversible, not any specific mode of entry
2 such as resale.

3 Mr. Gillan also blames [at 9] this alleged failure of resale-based entry on “a small
4 margin between the wholesale and retail rate” and the “negligible margins [that] exist now”
5 after the Eighth Circuit of Appeals vacated the FCC’s avoidable cost methodology for
6 setting the wholesale discount for resold services. The fact is that with the wholesale
7 discount for resold services and UNE prices set at efficient levels, the potential entrant
8 should be indifferent between using either resale or UNEs to enter. Contrary to Mr.
9 Gillan’s reasoning, this has nothing to do with the size of the margin *per se* between the
10 wholesale rate and the retail rate. The problem with resale, of course, is that it does not
11 allow entrants to differentiate or develop their own services. Therefore, it is natural for
12 resale to become a less-preferred mode of entry as competition matures. Also, if wholesale
13 and retail rates are not compatibly geographically de-averaged, then potential entrants
14 could be induced to prefer one mode of entry over another, depending on the exact
15 relationship between those rates.

16 **Q. DOES MR. GILLAN OFFER AN ASSESSMENT OF THE OTHER MODES OF**
17 **ENTRY IN FLORIDA’S LOCAL EXCHANGE MARKETS?**

18 A. Yes. Mr. Gillan believes, however, that ALECs have not made much headway using the
19 two other means of entry either. For example, he estimates [Gillan, Exhibit JPG-3] UNE-
20 based competition in Florida to be limited to 1.5 percent (in line terms) and 1.4 percent (in
21 revenue terms). Furthermore, he contrasts [Gillan, Exhibits 1 and 5] BellSouth’s estimate
22 of a ALEC market share (in line terms) of 10.6 percent against his own estimate of 3.7

1 percent (“low estimate”) to 5.5 percent (“high estimate”). While BellSouth witness
2 Cynthia Cox responds to Mr. Gillan on this point, I note here that even the FCC has found
3 the ALEC market share in Florida to be 8 percent, a figure that is considerably higher than
4 Mr. Gillan’s.¹¹

5 **Q. DOESN’T MR. GILLAN CHALLENGE [AT 18-19] THE FCC’S ESTIMATE AS**
6 **BEING INFLATED FOR FAILING TO ADJUST FOR THE DIFFERENCE**
7 **BETWEEN “LINES” AND “VOICE GRADE EQUIVALENTS?”**

8 A. Yes, but Mr. Gillan makes the unsupported assertion [at 17-18 and Exhibit JPG-6] that the
9 FCC survey report incorrectly compares BellSouth’s lines to ALECs’ voice grade
10 equivalents. However, the FCC’s instructions to survey respondents—which I have
11 attached as Exhibit WET-3—make it clear *several times* that the information sought
12 pertains to voice grade equivalent lines. There is no credible reason to believe that,
13 contrary to these instructions, ILECs alone responded with line measures, while all ALECs
14 responded faithfully with voice grade equivalents.

15 **Q. MR. GILLAN USES MARKET SHARE ANALYSIS TO SUPPORT HIS**
16 **CONTENTION THAT LOCAL COMPETITION IS INSUFFICIENT IN FLORIDA**
17 **BECAUSE BELLSOUTH HAS FAILED TO PROVIDE ALECS NON-**
18 **DISCRIMINATORY ACCESS TO ITS NETWORK. DO YOU ACCEPT HIS**
19 **REASONING?**

20 A. No. As I remarked earlier, the connection Mr. Gillan makes between an allegedly low

¹¹ FCC, *Local Competition Report*, May 2001, Table 6.

1 level of local competition in Florida and BellSouth's alleged denial of non-discriminatory
2 access to its competitors is overly simplistic and ignores other reasons for variations in
3 ALEC activity. Moreover, Mr. Gillan [at 3] makes a larger inference with which I
4 disagree, namely, that were BellSouth to be granted interLATA authority in Florida, it
5 would "gain even greater dominance in the future." Although Mr. Gillan does not explain
6 the sense in which he uses the term "dominance," I am aware of at least two possible
7 usages.

8 First, dominance may simply be a statement about market share (in terms of
9 revenue, lines, or capacity), but carry no further connotation about the firm's behavior.
10 That is, the focus is on market *structure*, rather than on market *conduct*. Alternatively,
11 dominance may imply not merely "high" market share, but also the ability to exert market
12 power to the detriment of the firm's competitors, i.e., a statement about both market
13 structure and conduct. No matter how Mr. Gillan means to use the term, the only matter of
14 substance that should concern this Commission is whether a high market share for
15 BellSouth now and in the future would augur badly for Florida consumers. In other words,
16 is BellSouth able now, and will it be able in the future, to exert market power simply on the
17 strength of its high market share? In my opinion, BellSouth's high market share in the
18 local exchange market presently foreshadows no such dire outcome.

19 **Q. PLEASE EXPLAIN WHY A MARKET SHARE ANALYSIS (SUCH AS MR.**
20 **GILLAN CONDUCTS) DOES NOT NECESSARILY IMPLY THAT BELLSOUTH**
21 **WILL EXERCISE MARKET POWER NOW AND IN THE FUTURE.**

22 A. To begin with, it is useful to remember that, for historical reasons, BellSouth was the sole

1 service provider in the local exchange market in Florida until the passage of the 1996 Act.
2 Although, by definition, this gave BellSouth monopoly status prior to the 1996 Act, i.e., a
3 market share of 100 percent, it is useful also to remember that BellSouth was never
4 permitted to exercise market power commensurate with that status. In other words,
5 regulation disciplined BellSouth's actions in the local exchange market, performing the
6 same function that competition would perform in a market with no entry barriers.

7 Now, in the wake of the 1996 Act, the local exchange market in Florida is in
8 transition to deregulation and competition. That target state, however, cannot be attained
9 by simply passing legislation or encoding the new laws into new rules of engagement. The
10 new laws and rules have merely provided the necessary conditions, i.e., reduced barriers to
11 entry, by which competitive entry can occur. This removal of entry barriers does *not*
12 guarantee—nor should it—that any entry that occurs will be successful and will occur at
13 BellSouth's expense. That is, there can be no expectation that BellSouth will not compete
14 as strenuously to keep its customers as new entrants may compete to take those customers
15 away.

16 While ensuring fair and efficient access to BellSouth underlying network is
17 consistent with promoting competition in the local exchange, handicapping any one
18 party—be it BellSouth or a ALEC—is not. Thus, beyond setting terms and conditions
19 which ensure that ALECs can engage with BellSouth on an efficient and equitable basis,
20 there is no compelling reason for the Commission to somehow restrain BellSouth until its
21 market share falls to some acceptable, but entirely arbitrary, level. I believe that the
22 Commission has actively pursued over the past five years precisely the rules of engagement

1 that create the necessary conditions for competition. It has another opportunity now to
2 ensure that BellSouth's proposed SGAT remains supportive of those conditions.

3 The flaw in Mr. Gillan's market share analysis is that it fails to recognize that there
4 is no magic number or level to which the incumbent firm's market share must fall before
5 the process of competition that is underway can be declared to be beyond harm's reach. In
6 fact, no specific or trigger level of market share is contemplated for this purpose in either
7 Section 271 of the 1996 Act or in the FCC's implementing rules. In a market in which
8 every firm starts from scratch (i.e., with little or no market share), but becomes increasingly
9 concentrated because one or more firms in it are able to extract some advantage not
10 available to the rest, there may be legitimate cause for concern. However, in a market in
11 which one firm, for historical reasons, starts with 100 percent market share and experiences
12 an erosion of that share with increasing competitive entry, there cannot be the same cause
13 for concern. In other words, only increasing, rather than decreasing, market share of the
14 dominant incumbent (or increasing concentration of the market as a whole) should be
15 worthy of regulatory investigation and action. Mr. Gillan provides no evidence that that is
16 happening, only that BellSouth's market share is not falling fast enough for his taste.
17 Again, as I said earlier, there can be numerous reasons for that, none of which is connected
18 to BellSouth.

19 **Q. ARE THERE OTHER MECHANISMS IN PLACE WHICH WOULD PREVENT**
20 **ANY EFFORT BY BELLSOUTH TO SUBVERT COMPETITION FROM ALECS?**

21 A. Yes. Even after BellSouth is allowed entry into the interLATA long distance market, the
22 Commission would retain full oversight over BellSouth's rates for access to its network,

1 the quality of wholesale service provided to ALECs, etc. Besides, the ALECs themselves
2 are obviously vigilant and have the resources to seek relief and redress if they feel
3 exploited or disadvantaged in any way by BellSouth. BellSouth itself has implemented a
4 voluntary and self-effectuating enforcement mechanism that obliges it to pay expeditiously
5 to aggrieved parties penalties for poor or non-compliant wholesale service quality. All of
6 these factors provide protections over and above what would be available from the
7 marketplace alone. Hence, a market share analysis cannot convey the real picture of the
8 protections available against attempt by BellSouth to manipulate its competitors.

9 **Q. EARLIER YOU CITED MARKET SHARE DATA TO CLAIM THAT**
10 **COMPETITIVE ACTIVITY HAS BEEN INCREASING IN FLORIDA. DOES**
11 **THAT NOT CONFLICT WITH YOUR PRESENT CLAIM THAT MARKET**
12 **SHARE ANALYSIS CONTAINS NO USEFUL INFORMATION ABOUT**
13 **BELLSOUTH'S IMPACT ON COMPETITION?**

14 A. No. My earlier reference to market share data was intended to provide evidence of
15 competitive inroads made by ALECs since the 1996 Act. However, such market share
16 information cannot, and should not, be used in any way to draw inferences about
17 BellSouth's market conduct in the future, as Messrs. Gillan and Gallagher have done.

18 **Q. ARE YOU SAYING THAT MARKET SHARE IS NOT A SOUND PREDICTOR OF**
19 **MARKET CONDUCT?**

20 A. Yes. Market share reflects the market structure that has resulted from *past* actions. With
21 BellSouth's sole provider status in the past, it should be no surprise that its market share is

1 where it is today, a few short years after the 1996 Act. A much better predictor of market
2 power and the future conduct of firms in the market are the conditions of entry and exit. If
3 barriers to entry remain, the incumbent firm will be able to exert market power unless
4 otherwise restrained. However, once those barriers to entry (and exit) have been removed
5 or reduced, even a dominant incumbent firm may be in no position to exercise market
6 power or prevent competitive activity.

7 Economists agree that sunk costs are the most important barrier to entry or exit.¹²
8 Faced with the prospect of having to make large and risky capital outlays simply to enter
9 the market, and the further prospect of being unable to recover those costs in the event of
10 having to exit the market, a firm may choose not to enter the market in the first place.
11 However, any mechanism or regulation that lowers those sunk costs to negligible or
12 manageable levels holds the promise of greater competitive entry and participation. That
13 mechanism was provided by the 1996 Act and follow-on FCC rules in the form of the
14 ILEC's duties to interconnect, unbundle its network, and offer its services for resale at
15 wholesale discounts. The considerable facility costs of entry having been avoided in this
16 fashion, new ALECs can form and compete despite the obvious difference in size between
17 themselves and the incumbent.¹³

18 **Q. PLEASE EXPLAIN HOW, DESPITE THE PRESENCE OF A DOMINANT**

¹² Sunk costs are costs that cannot be easily recovered or reversed if a firm should decide to scale back or stop production or, in the extreme, exit the market. Sunk costs need not always be fixed costs.

¹³ Sunk costs associated with developing a customer base may still remain. That is why resale-based entry can provide the respite ALECs need to be able to start offering service while taking the time to acquire and retain customers.

1 **INCUMBENT FIRM, THE ABSENCE OF SUNK COSTS OF ENTRY AND EXIT**
2 **CAN PREVENT ANY EXERCISE OF MARKET POWER.**

3 A. Competition—particularly of the “perfect” or textbook kind—is not the only form of
4 market organization that can prevent the exercise of market power. Another form of
5 market organization known as “contestability” can prevent market power from emerging in
6 a market that has one dominant firm (in terms of market share) and a competitive fringe of
7 relatively small firms. According to the theory of contestable markets, when the market
8 structure is as described and sunk costs are low or non-existent, even small competitors can
9 carry out “hit-and-run” entry, i.e., enter at very low cost, undercut the dominant firm for
10 services for which the latter is charging supra-competitive prices, collect a profit, and exit
11 at very low cost, if necessary.¹⁴ Although this could create some churn in the ranks of the
12 small competitors, the end result is to effectively discipline the pricing practices of the
13 dominant incumbent firm. Despite its relatively large size, that firm cannot exercise
14 market power or abuse consumers.

15 **Q. DOES THE MANNER IN WHICH MARKET SHARE IS MEASURED HAVE ANY**
16 **BEARING ON THESE ISSUES?**

17 A. No, the basic unsuitability of a market share measure for predicting future market conduct
18 and performance (of *any* carrier) will remain whether market share is measured in terms of
19 revenue, lines, or capacity. However, it is worth noting that, as far as market share
20 measures go, the most faithful representation of market structure comes not from revenue

¹⁴ William J. Baumol, John C. Panzar, and Robert D. Willig, *Contestable Markets and the Theory of Industry*
(continued...)

1 or line share measures, but rather from capacity share measures. A market share analysis
2 based on *lines* (such as in the FCC's survey report) is more likely to overstate
3 concentration—and understate competition—in the market because a disproportionately
4 small percentage of access lines may account for a disproportionately large percentage of
5 revenues, particularly in light of the known fact that competitors tend initially to
6 concentrate on securing the business of large, high-volume customers to the neglect of
7 smaller customers. Therefore, in the early aftermath of the opening of a market to
8 competition, conventional market share analysis tends to overstate the degree to which the
9 market is actually concentrated and the exercise of market power that is actually possible.

10 Measuring market share in terms of *capacity* or the stock of productive facilities,
11 rather than lines or revenues, gives a more reliable predictor of the firm's future (strategic)
12 behavior.¹⁵ The capacity-based share measures the total volume of output that the firm's
13 installed productive facilities could produce. For this reason, a firm's capacity is a
14 determinant or driver of outcomes such as the number of lines sold or revenue dollars
15 earned. Larger capacity usually translates into an ability to serve greater volumes of
16 existing or new demand. The capacity share measure is sometimes depicted directly in
17 terms of the size of the facilities themselves (e.g., the number of route-miles of installed

(...continued)

Structure, revised edition, New York: Harcourt Brace Jovanovich, 1988.

¹⁵ The Department of Justice has recognized in its *Horizontal Merger Guidelines* that market shares should be calculated using the best indicator of firms' future competitive behavior. For differentiated products, sales revenues are a better indicator while, for undifferentiated products, physical capacity is a more suitable indicator. Capacity should be understood as the stock of productive facilities rather than the access lines over which customers receive services. Capacity refers to how quickly service provision can be expanded; access lines provide no such information.

1 fiber from which various services could be provided). ALECs tend to have relatively more
2 fiber deployed in their networks than ILECs; hence, measures of line and capacity market
3 share are quite likely to diverge.

4 **Q. HAS ANY OF THE PARTIES IN THIS PROCEEDING TAKEN POSITIONS**
5 **ELSEWHERE THAT ARE CONSISTENT WITH YOUR APPROACH TO**
6 **ASSESSING COMPETITION AND USING MARKET SHARE ANALYSIS?**

7 A. Yes. In other proceedings, AT&T—which is an ALEC member of FCCA in this
8 proceeding— has, through a variety of economic experts, acknowledged the limitations of
9 market share analysis and argued against using it for predicting the incumbent’s market
10 conduct. These experts testified that if new entrants can provide substitutes and expand
11 rapidly, then those carriers can prevent an incumbent with a high market share from
12 exercising market power. They also emphasized that regardless of its market share, the
13 incumbent’s market power will be constrained if entry barriers are low. AT&T has also
14 argued that, to the extent that market concentration is relevant, it should be measured using
15 the relative capacities of the competitors in the market, not their shares of recent revenues
16 or output.

17 The FCC summarized AT&T’s position in the so-called Non-Dominance
18 proceeding as follows:

19 AT&T contends that market share alone is not a valid measure of market power
20 in any aspect of the interexchange market because: (a) competitors’ excess
21 capacity constrains AT&T’s ability to restrict output; and (b) AT&T’s aggregate
22 share does not reflect the extraordinary amount of consumer “churn” currently
23 occurring in the marketplace. Thus, AT&T argues that market share figures

1 based solely upon output—rather than on total available capacity—distort the
2 importance of market share as an indicator of market power...¹⁶

3 Drs. Mayo and Kaserman noted on behalf of AT&T that:

4 [I]nformation that, in some cases, might be contained in a market share number
5 at a specific point in time is diluted substantially by the fact that AT&T began
6 the post-divestiture period with an inherited high [market] share. The
7 competitive significance of a market share number...stems from a firm's ability
8 (or lack thereof) to *retain* a given market share in the wake of an attempt to raise
9 prices to above-competitive levels.

10 [T]he presence of a high market share at a given point in time provides no
11 information on the incumbent firm's vulnerability to market share losses.¹⁷

12 [M]arket share is one of the economic determinants of market power, it cannot
13 by itself demonstrate that a firm has significant control over market price. The
14 other economic determinants, such as entry conditions, must also be conducive
15 to providing such control.¹⁸

16 It is important to understand that a firm cannot hold significant market power
17 unless it has a large market share and other firms' supply responsiveness is low.
18 That is *either* a low market share *or* a high responsiveness of other firms' supply
19 to price changes means that the firm is facing effective competition. Is [sic]
20 market share is low, significant market power cannot exist even if the
21 responsiveness of other firms' supply to price changes is limited. *Conversely,*
22 *where other firms' supply is highly responsive to price changes, an individual*
23 *firm cannot possess significant market power even if it holds a very high share.*¹⁹

24 The FTC further notes that, "[t]he issue of entry barriers is perhaps the most
25 important qualitative factor, for if entry barriers are very low it is unlikely
26 market power...will persist for long."²⁰

¹⁶ *Motion of AT&T Corp. to be Reclassified as Non-Dominant Carrier*, FCC 95-427, October 23, 1995, ¶42, citing AT&T *Ex Parte* Filing, April 24, 1995, at 30-35.

¹⁷ David Kaserman and John Mayo, "Is AT&T Dominant? An Assessment of the Evidence," June 1995, Attachment to AT&T *Ex Parte* letter from Charles L. Ward to William C. Caton, CC Docket 79-252, at 13.

¹⁸ *Id.*, at 16. Emphasis added.

¹⁹ *Id.*, at 14, emphasis added.

²⁰ *Id.*, at 15.

1 AT&T has acknowledged elsewhere that there is no clear theoretical or empirical
2 link between the degree of concentration and the intensity of competition in a market. One
3 AT&T witness argued:

4 [T]he link between market concentration and market competitiveness is a
5 tenuous one, and that measuring concentration is not a substitute for analyzing
6 the factors that determine market performance. ... It is widely recognized that a
7 firm's market power depends on whether rivals can supply defecting customers
8 without significant increases in marginal cost and on whether consumers regard
9 the products of other firms as good substitutes.²¹

10 He also argued (as I do in my testimony) that capacity is the proper basis for measuring and
11 analyzing market share.²²

12 **Q. BEYOND HIS MARKET SHARE ANALYSIS, MR. GILLAN ATTEMPTS TO**
13 **MAKE THE CASE [AT 20-21 AND EXHIBIT JPG-7] THAT BELLSOUTH'S SGAT**
14 **RATES FOR UNES ARE SO UNFAVORABLE TO ALECS THAT, IF**
15 **BELLSOUTH WERE TO ATTEMPT SERVING THE MARKET TODAY AS A**
16 **ALEC, IT WOULD FIND ITS PROFITS SHRINKING DRAMATICALLY. DO**
17 **YOU AGREE WITH HIS ANALYSIS?**

18 A. No. The bulk of Mr. Gillan's case in this regard is made in his Exhibit JPG-7 which
19 purports to be a hypothetical income statement for a BellSouth that operates in Florida
20 solely by leasing UNEs from some other source. To this end, Mr. Gillan replaces
21 BellSouth's own embedded costs of operating its network with the payments Mr. Gillan

²¹ Statement of Stanley M. Besen, *Reply Comments of American Telephone and Telegraph Company*, CC Docket No. 90-132, September 18, 1990, Appendix B, at 2-3 (footnotes omitted).

²² *Id.*, at 3-4.

1 estimates BellSouth would make for leased UNEs sufficient to serve the current level of
2 demand. This analysis is problematic from several standpoints.

3 First, the entire analysis rests on a number of assumptions which are either specious
4 or unsupported, or both. To begin with, I find it inconceivable that *any* local exchange
5 carrier would attempt to serve BellSouth's current level of demand in Florida by using
6 UNEs alone, i.e., with no facilities of its own. Also, Mr. Gillan does not explain (beyond
7 claiming they were "developed") where the assumptions underlying usage by the "average
8 user" came from [at 20]. Nor does he provide any basis to calculate or verify the claimed
9 level of UNE lease payments of over \$2.1 billion [Exhibit JPG-7]. These omissions make
10 it impossible to determine whether Mr. Gillan's calculations are even remotely correct.

11 Second, suppose UNEs are priced at forward-looking total element long run
12 incremental cost ("TELRIC") and assume BellSouth replaced its own network with the
13 UNEs needed to serve current demand. In theory, BellSouth's *forward-looking, economic*
14 network costs would fall by the product of its volumes and its UNE rates, which would just
15 offset its new cost of purchasing UNEs, given by the product of its volumes and its UNE
16 rates. The net effect of this thought-experiment would be no change in costs and no change
17 in net revenue. Thus, if we assume Mr. Gillan's calculations were correct: i.e.,

- 18 • his price-out of the TELRIC of the UNEs necessary to provision BellSouth's volume
19 of usage services in Florida, and
- 20 • his measure of depreciation and network operating expenses associated with the
21 provision of usage services in Florida

22 all we could conclude from Mr. Gillan's demonstration—at best—would be that forward-
23 looking costs such as TELRIC differ from embedded costs. Since BellSouth and ALECs

1 compete in the market on the basis of forward-looking economic costs—not embedded
2 costs—Mr. Gillan’s demonstration—even if correct—tells us nothing about the ability of a
3 ALEC to compete with BellSouth at TELRIC-based UNE prices.

4 Mr. Gillan’s demonstration raises an additional red flag. The TELRIC of a network
5 element is generally thought to be less than its embedded cost because, by design, TELRIC
6 reflects more efficient choice of technology and a perfectly efficient network design and
7 provisioning. Thus, Mr. Gillan’s claim that TELRIC-based UNE rates are much higher
8 than embedded costs must mean that BellSouth’s UNE rates are even further above
9 TELRIC levels. However, the Commission has scrutinized these TELRIC-based UNE
10 rates on numerous occasions over the past few years. Either the Commission has erred in
11 this regard in the past, or Mr. Gillan has incorrectly calculated the UNE lease payments
12 entry and/or the embedded costs associated with network usage services in his Exhibit
13 JPG-7. More information on Mr. Gillan’s calculations would be needed to determine
14 which of these possibilities is true.

15 **Q. WHAT DO YOU CONCLUDE FROM THIS DISCUSSION?**

16 A. I conclude that whatever the actual market shares of BellSouth and the ALECs in Florida
17 as a group may be, the real issue is whether BellSouth, despite its obviously large market
18 presence, is in any position to deter retail competition by raising barriers to entry, primarily
19 at the wholesale level. If the Commission should find that BellSouth has raised no such
20 barriers—and the oversight and rulemaking functions this Commission has exercised in the
21 past few years have ensured that that is so—then the facts of open local exchange markets
22 and increasing local competition in Florida cannot be denied. Also, with valid TELRIC-

1 based rates in effect today for BellSouth's UNEs, the most significant source of entry
2 barriers in Florida has been removed. Thus, whatever course local competition takes in
3 Florida, the concerns of the ALEC witnesses regarding BellSouth's market share should
4 have little or no relevance for determining whether the time has come for BellSouth to
5 receive interLATA authority in Florida.

6 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

7 A. Yes.

WILLIAM E. TAYLOR

BUSINESS ADDRESS

National Economic Research Associates, Inc.
One Main Street
Cambridge, Massachusetts 02142

(617) 621-2615
(617) 621-0336 (fax)
william.taylor@nera.com

Dr. Taylor received a B.A. magna cum laude in Economics from Harvard College, an M.A. in Statistics and a Ph.D. in Economics from the University of California at Berkeley. He has taught economics, statistics, and econometrics at Cornell and the Massachusetts Institute of Technology and was a post doctoral Research Fellow at the Center for Operations Research and Econometrics at the University of Louvain, Belgium.

At NERA, Dr. Taylor is a Senior Vice President, heads the Cambridge office and is Director of the Telecommunications Practice. He has worked primarily in the field of telecommunications economics on problems of state and federal regulatory reform, competition policy, terms and conditions for competitive parity in local competition, quantitative analysis of state and federal price cap and incentive regulation proposals, and antitrust problems in telecommunications markets. He has testified on telecommunications economics before numerous state regulatory authorities, the Federal Communications Commission, the Canadian Radio-Television and Telecommunications Commission, federal and state congressional committees and courts. Recently, he was chosen by the Mexican Federal Telecommunications Commission and Telmex to arbitrate the renewal of the Telmex price cap plan in Mexico. Other recent work includes studies of the competitive effects of major mergers among telecommunications firms and analyses of vertical integration and interconnection of telecommunications networks. He has appeared as a telecommunications commentator on PBS Radio and on The News Hour with Jim Lehrer.

He has published extensively in the areas of telecommunications policy related to access and in theoretical and applied econometrics. His articles have appeared in numerous telecommunications industry publications as well as *Econometrica*, the *American Economic Review*, the *International Economic Review*, the *Journal of Econometrics*, *Econometric Reviews*, the *Antitrust Law Journal*, *The Review of Industrial Organization*, and *The Encyclopedia of Statistical Sciences*. He has served as a referee for these journals (and others) and the National Science Foundation and has served as an Associate Editor of the *Journal of Econometrics*.

EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY
Ph.D., Economics, 1974

UNIVERSITY OF CALIFORNIA, BERKELEY
M.A., Statistics, 1970

HARVARD COLLEGE
B.A., Economics, 1968
(Magna Cum Laude)

EMPLOYMENT

NATIONAL ECONOMIC RESEARCH ASSOCIATES, INC. (NERA)

1988- Senior Vice President, Office Head, Telecommunications Practice Director. Dr. Taylor has directed many studies applying economic and statistical reasoning to regulatory, antitrust and competitive issues in telecommunications markets. In the area of environmental regulation, he has studied statistical problems associated with measuring the level and rate of change of emissions.

BELL COMMUNICATIONS RESEARCH, INC. (Bellcore)

1983-1988 Division Manager, Economic Analysis, formerly Central Services Organization, formerly American Telephone and Telegraph Company. While at Bellcore, Dr. Taylor performed theoretical and quantitative research focusing on problems raised by the implementation of access charges. His work included design and implementation of demand response forecasting for interstate access demand, quantification of potential bypass liability, design of optimal nonlinear price schedules for access charges and theoretical and quantitative analysis of price cap regulation of access charges.

BELL TELEPHONE LABORATORIES

1975-1983 Member, Technical Staff, Economics Research Center. Performed basic research on theoretical and applied econometrics, focusing on small sample theory, panel data and simultaneous equations systems.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Fall 1977 Visiting Associate Professor, Department of Economics. Taught graduate courses in econometrics.

CENTER FOR OPERATIONS RESEARCH AND ECONOMETRICS

Université Catholique de Louvain, Belgium.

1974-1975 Research Associate. Performed post-doctoral research on finite sample econometric theory and on cost function estimation.

CORNELL UNIVERSITY

1972-1975 Assistant Professor, Department of Economics. (On leave 1974-1975.) Taught graduate and undergraduate courses on econometrics, microeconomic theory and principles.

MISCELLANEOUS

1985-1995 Associate Editor, *Journal of Econometrics*, North-Holland Publishing Company.
1990- Board of Directors, National Economic Research Associates, Inc.
1995- Board of Trustees, Treasurer, Episcopal Divinity School, Cambridge, Massachusetts.

PUBLICATIONS

- "Smoothness Priors and Stochastic Prior Restrictions in Distributed Lag Estimation," *International Economic Review*, 15 (1974), pp. 803-804.
- "Prior Information on the Coefficients When the Disturbance Covariance Matrix is Unknown," *Econometrica*, 44 (1976), pp. 725-739.
- "Small Sample Properties of a Class of Two Stage Aitken Estimators," *Econometrica*, 45 (1977), pp. 497-508.
- "The Heteroscedastic Linear Model: Exact Finite Sample Results," *Econometrica*, 46 (1978), pp. 663-676.
- "Small Sample Considerations in Estimation from Panel Data," *Journal of Econometrics*, 13 (1980) pp. 203-223.
- "Comparing Specification Tests and Classical Tests," Bell Laboratories Economics Discussion Paper, 1980 (with J.A. Hausman).
- "Panel Data and Unobservable Individual Effects," *Econometrica*, 49 (1981), pp. 1377-1398 (with J.A. Hausman).
- "On the Efficiency of the Cochrane-Orcutt Estimator," *Journal of Econometrics*, 17 (1981), pp. 67-82.
- "A Generalized Specification Test," *Economics Letters*, 8 (1981), pp. 239-245 (with J.A. Hausman).
- "Identification in Linear Simultaneous Equations Models with Covariance Restrictions: An Instrumental Variables Interpretation," *Econometrica*, 51 (1983), pp. 1527-1549 (with J.A. Hausman).
- "On the Relevance of Finite Sample Distribution Theory," *Econometric Reviews*, 2 (1983), pp. 1-84.

- “Universal Service and the Access Charge Debate: Comment,” in P.C. Mann and H.M. Trebing (editors), *Changing Patterns in Regulation, Markets, and Technology: The Effect on Public Utility Pricing*. The Institute of Public Utilities, Michigan State University, 1984.
- “Recovery of Local Telephone Plant Costs under the St. Louis Plan,” in P.C. Mann and H.M. Trebing (editors), *Impact of Deregulation and Market Forces on Public Utilities*. The Institute of Public Utilities, Michigan State University, 1985.
- “Access Charges and Bypass: Some Approximate Magnitudes,” in W.R. Cooke (editor), *Proceedings of the Twelfth Annual Telecommunications Policy Research Conference*, 1985.
- “Federal and State Issues in Non-Traffic Sensitive Cost Recovery,” in *Proceedings from the Telecommunications Deregulation Forum*. Karl Eller Center, College of Business and Public Administration, University of Arizona, Tucson, Arizona, 1986.
- “Panel Data” in N.L. Johnson and S. Kotz (editors), *Encyclopedia of Statistical Sciences*. John Wiley & Sons, New York, 1986.
- “An Analysis of Tapered Access Charges for End Users,” in P.C. Mann and H.M. Trebing (editors), *New Regulatory and Management Strategies in a Changing Market Environment*. The Institute of Public Utilities, Michigan State University, 1987 (with D.P. Heyman, J.M. Lazorchak, and D.S. Sibley).
- “Efficient Estimation and Identification of Simultaneous Equation Models with Covariance Restrictions,” *Econometrica*, 55 (1987), pp. 849-874 (with J.A. Hausman and W.K. Newey).
- “Alternative NTS Recovery Mechanisms and Geographic Averaging of Toll Rates,” in *Proceedings of the Thirteenth Annual Rate Symposium: Pricing Electric, Gas, and Telecommunications Services*. The Institute for the Study of Regulation, University of Missouri, Columbia, 1987.
- “Price Cap Regulation: Contrasting Approaches Taken at the Federal and State Level,” in W. Bolter (editor), *Federal/State Price-of-Service Regulation: Why, What and How?*, Proceedings of the George Washington University Policy Symposium, December, 1987.
- “Local Exchange Pricing: Is There Any Hope?,” in J. Alleman (editor), *Perspectives on the Telephone Industry: The Challenge of the Future*. Ballinger Publishing Company, Cambridge, Massachusetts, 1989.
- “Generic Costing and Pricing Problems in the New Network: How Should Costs be Defined and Assessed,” in P.C. Mann and H.M. Trebing (editors) *New Regulatory Concepts, Issues, and Controversies*. The Institute of Public Utilities, Michigan State University, 1989.
- “Telephone Penetration and Universal Service in the 1980s,” in B. Cole (editor), *Divestiture Five Years Later*. Columbia University Press, New York, New York, 1989 (with L.J. Perl).
- “Regulating Competition for IntraLATA Services,” in *Telecommunications in a Competitive Environment*, Proceedings of the Third Biennial NERA Telecommunications Conference, 1989, pp. 35-50.
- “Costing Principles for Competitive Assessment,” in *Telecommunications Costing in a Dynamic Environment*, Bellcore-Bell Canada Conference Proceedings, 1989 (with T.J. Tardiff).

- “Optional Tariffs for Access in the FCC's Price Cap Proposal,” in M. Einhorn (ed.), *Price Caps and Incentive Regulation in the Telecommunications Industry*. Kluwer, 1991 (with D.P. Heyman and D.S. Sibley).
- “Alternative Measures of Cross-Subsidization,” prepared for the Florida Workshop on Appropriate Methodologies for the Detection of Cross--Subsidies, June 8, 1991.
- “Predation and Multiproduct Firms: An Economic Appraisal of the Sievers-Albery Results,” *Antitrust Law Journal*, 30 (1992), pp. 785-795.
- “Lessons for the Energy Industries from Deregulation in Telecommunications,” *Proceedings of the 46th Annual Meeting of the Federal Energy Bar Association*, May 1992.
- “Efficient Price of Telecommunications Services: The State of the Debate,” *Review of Industrial Organization*, Vol. 8, pp. 21-37, 1993.
- “Status and Results of Regulatory Reform in the U.S. Telecommunications Industry,” in C.G. Stalon, *Regulatory Responses to Continuously Changing Industry Structures*. The Institute of Public Utilities, Michigan State University, 1992.
- “Post-Divestiture Long-Distance Competition in the United States,” *American Economic Review*, Vol. 83, No. 2, May 1993 (with Lester D. Taylor). Reprinted in E. Bailey, J. Hower, and J. Pack, *The Political Economy of Privatization and Deregulation*. London: Edward Elgar, 1994.
- “Comment on ‘Pricing of Inputs Sold to Competitors,’ by W.J. Baumol and J.G. Sidak,” *Yale Journal on Regulation*, Vol. 11, Issue 1, 1994, pp. 225-240 (with Alfred E. Kahn).
- “Comments on Economic Efficiency and Incentive Regulation,” Chapter 7 in S. Globerman, W. Stanbury and T. Wilson, *The Future of Telecommunications Policy in Canada*. Toronto: Institute for Policy Analysis, University of Toronto, April 1995.
- “Revising Price Caps: The Next Generation of Incentive Regulation Plans,” Chapter 2 in M.A. Crew (ed.) *Pricing and Regulatory Innovations under Increasing Competition*. Boston: Kluwer Academic Publishers, May 1996 (with T. Tardiff).
- “An Analysis of the State of Competition in Long-Distance Telephone Markets,” *Journal of Regulatory Economics*, May 1997, pp. 227-256 (with J.D. Zona).
- “An Analysis of the Welfare Effects of Long Distance Market Entry by an Integrated Access and Long Distance Provider,” *Journal of Regulatory Economics*, March 1998, pp. 183-196 (with Richard Schmalensee, J.D. Zona and Paul Hinton).
- “Market Power and Mergers in Telecommunications,” *Proceedings of the Institute of Public Utilities; 30th Annual Conference: Competition in Crisis: Where are Network Industries Heading?* The Institute of Public Utilities, Michigan State University, 1999.
- “The Baby and the Bathwater: Utility Competition, But at What Price?,” *Public Utilities Fortnightly*, Vol. 137, No.21, November 15, 1999, pp. 48-56 (with Anne S. Babineau and Matthew M. Weissman).

TESTIMONIES

Access Charges

Florida Public Service Commission (Docket No. 820537-TP), July 22, 1983.
Arkansas Public Service Commission (Docket No. 83-042-U), October 7, 1985.
Public Utility Commission of Texas (Docket No. 8585), December 18, 1989.
Mexican Secretariat of Communications and Transport, affidavit filed October 18, 1995 (with T. Tardiff).
Federal Communications Commission (CC Docket No. 96-98), affidavit July 8, 1996; *ex parte* letters filed July 22, 1996 and July 23, 1996.
Federal Communications Commission (CC Docket No. 96-262 et. al.) with Richard Schmalensee, January 29, 1997). Rebuttal February 14, 1997.
New York Public Service Commission (Case 94-C-0095 and 28425), Panel Testimony, May 8, 1997. Rebuttal Panel Testimony July 8, 1997.
Pennsylvania Public Utility Commission (Docket No. I-00960066), June 30, 1997. Rebuttal July 29, 1997. Surrebuttal August 27, 1997.
Connecticut Department of Public Utility Control (Docket No. 96-04-07), October 16, 1997.
Federal Communications Commission (*ex parte* CC Docket No. 96-262 et. al.), with Richard Schmalensee, January 21, 1998.
Federal Communications Commission (CCB/CPD 98-12), March 18, 1998.
Federal Communications Commission (CC Docket Nos. 96-262, 94-1, 97-250 and RM 9210), October 26, 1998. Reply November 9, 1998.
Federal Communications Commission (Docket No. 99-24), with Karl McDermott, January 20, 1999. Reply April 8, 1999.
Vermont Public Service Board (Docket No. 6167), May 20, 1999. Supplemental May 27, 1999.
Virginia State Corporation Commission, (Case No. PUC 000003), May 30, 2000.

Incentive and Price Cap Regulation

Federal Communications Commission (Docket No. 87-313), March 17, 1988.
Florida Public Service Commission (Docket No. 880069-TL), June 10, 1988.
Federal Communications Commission (Docket No. 87-313), August 18, 1988. Rebuttal November 18, 1988.
New Hampshire Public Service Commission (Docket 89-010), March 3, 1989.
Federal Communications Commission (Docket No. 87-313), June 9, 1989.
Federal Communications Commission (Docket No. 87-313), August 3, 1989. (2 filings)
New York State Public Service Commission (Case 28961 - Fifth Stage), September 15, 1989.
Georgia Public Service Commission (Docket No. 3882-U), September 29, 1989.
Federal Communications Commission (Docket 87-313), May 3, 1990.

Federal Communications Commission (Docket 87-313), June 8, 1990 (2 filings).
State of Maine Public Utilities Commission (Docket No. 89-397), June 15, 1990.
Montana Public Service Commission (Docket No. 90.8.46), October 4, 1990.
Federal Communications Commission (Docket 87-313), December 21, 1990.
Tennessee Public Service Commission, February 20, 1991.
Federal Communications Commission (Docket 87-313) with Alfred E. Kahn), June 12, 1991.
California Public Utilities Commission (Phase II of Case 90-07-037) with Timothy J. Tardiff,
August 30, 1991. Supplemental testimony January 21, 1992.
Rhode Island Public Utilities Commission (Docket No. 1997), September 30, 1991.
Montana Public Service Commission (Docket No. 90.12.86), November 4, 1991. Additional
testimony January 15, 1992.
Federal Communications Commission (Pacific Bell Tariff F.C.C. No. 128, Transmittal No.
1579) with T.J. Tardiff, April 15, 1992. Reply comments July 31, 1992.
California Public Utilities Commission (Docket No. I.87-11-033), with T.J. Tardiff, May 1,
1992.
Delaware Public Utilities Commission (Docket No. 33), June 22, 1992.
Florida Public Service Commission (Docket No. 920260-TL), December 18, 1992.
California Public Utilities Commission (Docket No. I.87-11-033), with T.J. Tardiff, April 8,
1993, reply testimony May 7, 1993.
Canadian Radio-Television and Telecommunications Commission (Docket No. 92-78), with
T.J. Tardiff, April 13, 1993 (2 filings).
Federal Communications Commission (Petition for Declaratory Ruling and Related Waivers to
Establish a New Regulatory Model for the Ameritech Region), April 16, 1993. Reply
Comments, July 12, 1993.
Delaware Public Utilities Commission (Docket No. 33), June 1, 1993. Supplementary
statement, June 7, 1993. Second supplementary statement," June 14, 1993.
Vermont Public Service Board (Dockets 5700/5702), September 30, 1993. Rebuttal testimony
July 5, 1994.
Pennsylvania Public Utility Commission (Docket No. P-009350715), October 1, 1993.
Rebuttal January 18, 1994.
Massachusetts Department of Public Utilities (Docket No. D.P.U. 94-50), April 14, 1994.
Rebuttal October 26, 1994.
Federal Communications Commission (CC Docket 94-1), May 9, 1994. Reply June 29, 1994.
Federal Communications Commission (CC Docket 94-1) with R. Schmalensee, May 9, 1994.
Reply June 29, 1994.
New York State Public Service Commission (Case 92-C-0665), panel testimony, October 3,
1994.
State of Maine Public Utilities Commission (Docket Nos. 94-123/94-254), December 13, 1994.
Rebuttal January 13, 1995.
Canadian Radio-Television and Telecommunications Commission (Application of Teleglobe
Canada for Review of the Regulatory Framework of Teleglobe Canada Inc.), December 21,
1994.

Kentucky Public Service Commission, testimony re concerning telecommunications productivity growth and price cap plans, April 18, 1995.

California Public Utilities Commission (U 1015 C), May 15, 1995. Rebuttal January 12, 1996.

State of Connecticut, Department of Public Utility Control (DPUC Docket No. 95-03-01), June 19, 1995.

Louisiana Public Service Commission (Docket No. U-17949, Subdocket E), July 24, 1995.

California Public Utilities Commission (Investigation No. I.95-05-047), with R.L. Schmalensee and T.J. Tardiff, September 8, 1995. Reply September 18, 1995.

Mississippi Public Service Commission (Docket No. 95-UA-313), October 13, 1995.

Louisiana Public Service Commission (Docket No. U-20883), November 21, 1995.

Federal Communications Commission (CC Docket No. 94-1), with T. Tardiff and C. Zarkadas, December 18, 1995. Reply March 1, 1996.

North Carolina Utilities Commission (Docket No. P-7, Sub 825; P-10, Sub 479), February 9, 1996.

Rhode Island Public Utilities Commission (Docket No. 2370), February 23, 1996. Rebuttal June 25, 1996.

Pennsylvania Public Utility Commission (Docket No. P-00961024), April 15, 1996. Rebuttal July 19, 1996.

Canadian Radio-Television and Telecommunications Commission, in response to CRTC Telecom Public Notice CRTC 96-8 (2 filings), June 10, 1996.

Federal Communications Commission (CC Docket 96-262 et al.), *ex parte* March 1997.

Federal Communications Commission (CC Docket Nos. 93-193, Phase 1, Part 2, 94-65), May 19, 1997.

Vermont Public Service Board (Docket no. 6000), January 19, 1998.

Colorado Public Utilities Commission (Docket No. 97A-540T, January 30, 1998. Rebuttal May 14, 1998.

California Public Utilities Commission, affidavit on economic principles for updating Pacific Bell's price cap plan. Filed February 2, 1998.

California Public Utilities Commission, reply comments on Pacific proposal to eliminate vestiges of ROR regulation and inflation minus productivity factor formula/index, filed June 19, 1998.

Pennsylvania Public Utility Commission (Docket No. P-00981410), October 16, 1998. Rebuttal February 4, 1999.

Comisión Federal de Telecomunicaciones de México ("Cofotel"), "Economic Parameter Values in the Telmex Price Cap Plan," arbitrator's report regarding the renewal of the price cap plan for Telmex, February 15, 1999.

Kentucky Public Service Commission (Docket No. 98-292), April 5, 1999.

Federal Communications Commission (Docket Nos. 94-1, 96-26), January 7, 2000. Reply comments filed January 24, 2000, Ex parte comments filed May 5, 2000.

New Mexico Public Regulation Commission, direct testimony filed December 10, 1999.

Arizona Corporation Commission (Docket No. T-01051B-99-105), rebuttal filed August 21, 2000; rejoinder filed September 19, 2000.

Connecticut Department of Public Utilities (Docket No. 00-07-17), filed November 21, 2000.

Pennsylvania Public Utility Commission (Docket No. P-00981449), filed October 31, 2000.

Rebuttal testimony filed February 20, 2001.

NERA Report: Economic Assessment of the Consumer Choice and Fair Competition
Telecommunications Amendment (Proposition 108) (with Aniruddha Banerjee and Charles
Zarkadas), November 2000.

Canadian Radio-Television and Telecommunications Commission, in response to CRTC
Telecom Public Notice CRTC 2000-108, oral panel testimony, January 11, 2001.

Maine Public Utilities Commission (Docket No. 99-851, January 8, 2001).

Payphone

California Public Utilities Commission (Case 88-04-029), July 11, 1988.

Illinois Commerce Commission (Docket No. 88-0412), August 3, 1990. Surrebuttal December
9, 1991.

Michigan Public Service Commission (Case No. U-11756), October 9, 1998.

South Carolina Public Service Commission (Docket No. 97-124-C), December 7, 1998.

New Jersey Board of Public Utilities (OAL DOCKET Nos. PUCOT 11269-97N, PUCOT
11357-97N, PUCOT 01186-94N AND PUCOT 09917-98N), March 8, 1999. Surrebuttal
June 21, 1999.

Louisiana Public Service Commission (Docket No. U-22632), July 17, 2000.

Tennessee Regulatory Authority, Docket No. 97-00409, October 6, 2000.

Economic Costing and Pricing Principles

Florida Public Service Commission (Docket No. 820400-TP), June 25, 1986.

Delaware Public Service Commission (Docket No. 86-20, Phase II), March 31, 1989. Rebuttal
November 17, 1989.

Delaware Public Service Commission (Docket No. 89-24T), August 17, 1990.

Florida Public Service Commission (Docket No. 900633-TL), May 9, 1991.

Maryland Public Service Commission (Case No. 8584, Phase II), December 15, 1994.

Additional direct testimony May 5, 1995. Rebuttal testimony filed June 30, 1995.

Canadian Radio-Television and Telecommunications Commission, Response to Interrogatory
SRCI(CRTC) 1Nov94-906, "Economies of Scope in Telecommunications," January 31,
1995.

Pennsylvania Public Utility Commission (Docket Nos. A-310203F0002, A-310213F0002, A-
310236F0002 and A-310258F0002), March 21, 1996.

State of Connecticut, Department of Public Utility Control (DPUC Docket No. 95-06-17), July
23, 1996.

New Jersey Board of Public Utilities (Docket No. TX95120631), August 15, 1996. Rebuttal
filed August 30, 1996.

Florida Public Service Commission (Docket No. 980000-SP), September 24, 1998.

Nebraska Public Service Commission, (Application No. C-1628), October 20, 1998. Reply November 20, 1998.
Florida Public Service Commission (Docket No. 980000-SP), November 13, 1998.
Wyoming Public Service Commission (Docket No. 70000-TR-99), April 26, 1999.
New Mexico Public Regulation Commission (Utility Case No. 3147), December 6, 1999, rebuttal testimony filed December 28, 1999.
New Mexico Public Regulation Commission (Case No. 3008, rebuttal testimony filed May 19, 2000.
North Dakota Public Service Commission, (Case No. PU-314-99-119), May 30, 2000.
New Mexico Public Regulation Commission (Case No. 3225, direct testimony filed August 18, 2000. Rebuttal filed September 13, 2000.
New Mexico Public Regulation Commission (Case No. 3300), rebuttal testimony filed October 19, 2000.

Statistics

Arizona State Air Pollution Control Hearing Board (Docket No. A-90-02), affidavit December 7, 1990.
Expert testimony: Michigan Circuit Court (Case No. 87-709234-CE and 87-709232-CE), *Her Majesty the Queen, et al., v. Greater Detroit Resource Recovery Authority, et al.*, February, 1992.
Expert testimony: United States District Court, Eastern District of New York, *Jancyn Manufacturing Corp. v. The County of Suffolk*, January 11, 1994.
New York Public Service Commission (Case Nos. 93-C-0451 and 91-C-1249), July 23, 1996.
New York Public Service Commission (Cases 95-C-0657, 94-C-0095, 91-C-1174 and 96-C-0036): panel testimony, March 18, 1998. Rebuttal June 3, 1998.

InterLATA Toll Competition

Canadian Radio-Television and Telecommunications Commission (Docket No. 1990-73), November 30, 1990.
Federal Communications Commission (Docket 91-141), August 6, 1991.
Federal Communications Commission (CC Docket 92-141), July 10, 1992.
Federal Communications Commission (In the Matter of Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorization Therefor) with A.E. Kahn, November 12, 1993.
U.S. District Court for the District of Columbia *United States of America v. Western Electric Company, Inc. and American Telephone and Telegraph Company*, Affidavit with A.E. Kahn, May 13, 1994.
U.S. Department of Justice, *United States of America v. Western Electric Company, Inc. and American Telephone and Telegraph Company*, August 25, 1994.

- Federal Communications *ex parte* filing in CC Docket No. 94-1, March 16, 1995.
- Federal Communications Commission (CC Docket No. 79-252) *ex parte* comments with J. Douglas Zona, April 1995.
- U.S. Department of Justice in *United States of America v. Western Electric Company, Inc. and American Telephone and Telegraph Company*, regarding Telefonos de Mexico's provision of interexchange telecommunications services within the United States, affidavit May 22, 1995.
- U.S. Department of Justice in *United States of America v. Western Electric Company, Inc. and American Telephone and Telegraph Company*, regarding provision of interexchange telecommunications services to customers with independent access to interexchange carriers, May 30, 1995.
- Expert testimony: *US WATS v. AT&T*, Confidential Report, August 22, 1995. Testimony October 18-20, 25-27, 30, 1995. Rebuttal testimony December 4, December 11, 1995.
- Expert testimony: United States District Court for the Northern District of Texas, Dallas Division, Civil Action 394CV-1088D, *Darren B. Swain, Inc. d/b/a U.S. Communications v. AT&T Corp.* Confidential Report, November 17, 1995.
- U.S. District Court, Southern District of New York, *Multi Communications Media Inc., v. AT&T and Trevor Fischbach* (96 Civ. 2679 (MBM)), December 27, 1996.
- Federal Communications Commission (CC Docket Nos. 96-262 and 96-45), March 18, 1998.
- Subcommittee on Communications of the Senate Committee on Commerce, Science and Transportation, *Statement* and oral testimony regarding long distance competition and Section 271 of the Telecommunications Act of 1996, March 25, 1998.
- Federal Communications Commission (CC Docket No. 96-262), with P.S. Brandon, October 16, 1998.
- Federal Communications Commission (CC Docket No. 96-262) with P.S. Brandon, October 22, 1998.

IntraLATA Toll Competition

- New Jersey Board of Public Utilities (Docket No. TX90050349), December 6, 1990.
- New York Public Service Commission (Case No. 28425) with T.J. Tardiff, May 1, 1992.
- New Jersey Board of Regulatory Commissioners (Docket No. TX93060259), Affidavit October 1, 1993.
- New Jersey Board of Public Utilities (Docket Nos. TX90050349, TE92111047, TE93060211), April 7, 1994. Rebuttal April 25, 1994. Summary Affidavit and Technical Affidavit April 19, 1994.
- Delaware Public Utilities Commission (Docket No. 42), October 21, 1994.
- Pennsylvania Public Utility Commission (Docket No. I-940034), panel testimony, December 8, 1994. Reply February 23, 1995. Surrebuttal March 16, 1995.
- Public Service Commission of West Virginia (Case No. 94-1103-T-GI), March 24, 1995.
- New Jersey Board of Public Utilities (Docket No. TX94090388), April 17, 1995. Rebuttal May 31, 1995.
- New York Public Service Commission (Case 94-C-0017), August 1, 1995.

Rhode Island Public Service Commission (Docket No. 2252), November 17, 1995.
Massachusetts Department of Telecommunications and Energy (Docket No. 98-85), October 20, 1998.

Local Competition

Massachusetts Department of Public Utilities (Docket No. D.P.U. 94-185), May 19, 1995.
Rebuttal August 23, 1995.
The Public Utilities Commission of Ohio (Case No. 94-1695-TP-ACE), May 24, 1995.
Vermont Public Service Board (Open Network Architecture Docket No. 5713), June 7, 1995.
Rebuttal July 12, 1995.
New Jersey Board of Public Utilities (with Kenneth Gordon and Alfred E. Kahn), paper filed in connection with arbitration proceedings, August 9, 1996.
Florida Public Service Commission, "Local Telecommunications Competition: An Evaluation of a Proposal by the Communications Staff of the Florida Public Service Commission," with A. Banerjee, filed November 21, 1997.
Rhode Island Public Utilities Commission (Docket No. 2681), January 15, 1999.
Connecticut Department of Public Utility Control (Docket No. 95-06-17RE02), June 8, 1999.

Interconnection

Federal Communications Commission (Docket 91-141), September 20, 1991.
Maryland Public Service Commission (Case No. 8584) with A.E. Kahn, November 19, 1993.
Rebuttal January 10, 1994. Surrebuttal January 24, 1994.
Maryland Public Service Commission (Case No. 8659), November 9, 1994.
Federal Communications Commission (CC Docket No. 95-185), affidavit March 4, 1996.
Federal Communications Commission (CC Docket No. 96-98), videotaped presentation on economic costs for interconnection, FCC Economic Open Forum, May 20, 1996.

Imputation

New Hampshire Public Service Commission (Docket DE 90-002), May 1, 1992. Reply testimony July 10, 1992. Rebuttal testimony August 21, 1992.
Canadian Radio-Television and Telecommunications Commission (Telecom Public Notice CRTC 95-36), August 18, 1995.
Massachusetts Department of Public Utilities (Docket No. D.P.U./D.T.E. 94-185-C), Affidavit February 6, 1998. Reply Affidavit February 19, 1998.
New Jersey Board of Public Utilities (BPU Docket No. TO97100808, OAL Docket No. PUCOT 11326-97N), July 8, 1998. Rebuttal September 18, 1998.
Vermont Public Service Board (Docket No. 6077), November 4, 1998.

Economic Depreciation

Florida Public Service Commission (Docket No. 920385-TL), September 3, 1992.

Louisiana Public Service Commission (Docket No. U-17949, Subdocket E), November 17, 1995. Surrebuttal, December 13, 1995, Further Surrebuttal, January 12, 1996.
Federal Communications Commission (CC Docket No. 98-137), with A. Banerjee, November 23, 1998.

Spectrum

Federal Communications Commission (ET Docket 92-100) with Richard Schmalensee, November 9, 1992.
Federal Communications Commission (Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, PR Docket No. 93-61), with R. Schmalensee, June 29, 1993.

Mergers

U.S. District Court for the District of Columbia, *United States of America v. Western Electric Company, Inc. and American Telephone and Telegraph Company*, with A.E. Kahn, January 14, 1994.
Vermont Public Service Board (Docket No. 5900), September 6, 1996.
Maine Public Utilities Commission (Docket No. 96-388), September 6, 1996. Rebuttal October 30, 1996.
New Hampshire Public Service Commission (Docket DE 96-220), October 10, 1996.
Federal Communications Commission (Tracking No. 96-0221), with Richard Schmalensee, October 23, 1996.
New York Public Service Commission (Case 96-C-0603), panel testimony, November 25, 1996. Reply December 12, 1996.
Federal Communications Commission (CC Docket No. 97-211), with R. Schmalensee, affidavit March 13, 1998. Reply affidavit May 26, 1998.
Connecticut Department of Public Utility Control, testimony regarding economic aspects of the SBC-SNET proposed change in control, filed June 1, 1998.
Federal Communications Commission (CC Docket No. 98-141), with R. Schmalensee, July 21, 1998. Reply November 11, 1998.
Alaskan Public Utilities Commission (Docket Nos. U-98-140/141/142 and U-98-173/174), February 2, 1999. Rebuttal March 24, 1999.
Pennsylvania Public Utility Commission (Docket Nos. A-310200F0002, A-311350F0002, A-310222F0002, A-310291F0003), April 22, 1999.
State Corporation Commission of Virginia, *In re: Joint Petition of Bell Atlantic Corporation and GTE Corporation for approval of agreement and plan of merger*, May 28, 1999.
Ohio Public Utility Commission (Docket No. 98-1398-TP-AMT), June 16, 1999.
Kentucky Public Service Commission (Docket No. 99-296), July 9, 1999.
Colorado Public Utilities Commission (Docket No. 99A-407T), December 7, 1999.
Iowa Utilities Board, rebuttal testimony, filed December 23, 1999.

Minnesota Public Utilities Commission (Docket No. P3009, 3052, 5096, 421, 3017/PA-99-1192), rebuttal affidavit regarding the effects of the proposed Qwest-U S WEST merger on economic welfare. Filed January 14, 2000.

Washington Utilities and Transportation Commission (Docket No. UT-991358), rebuttal testimony regarding the effects of the proposed Qwest-U S WEST merger on economic welfare. Filed February 22, 2000.

Montana Public Service Commission (Docket No. D99.8.200), rebuttal testimony regarding the effects of the proposed Qwest-U S WEST merger on economic welfare. Filed February 22, 2000.

Utah Public Service Commission (Docket No. 99-049-41), rebuttal testimony regarding the effects of the proposed Qwest-U S WEST merger on economic welfare. Filed February 28, 2000.

Minnesota Public Utilities Commission (Docket No. P3009, 3052, 5096, 421, 3017/PA-99-1192), rebuttal affidavit filed January 14, 2000.

Minnesota Public Utilities Commission (Docket No. P3009, 3052, 5096, 421, 3017/PA-99-1192), direct testimony filed March 29, 2000.

Arizona Corporation Commission (Docket No. T-01051B-99-0497), rebuttal testimony filed April 3, 2000.

Wyoming Public Service Commission (Docket Nos. 74142-TA-99-16, 70000-TA-99-503, 74037-TA-99-8, 70034-TA-99-4, 74089-TA-99-9, 74029-TA-99-43, 74337-TA-99-2, Record No. 5134), rebuttal testimony filed April 4, 2000.

Broadband Services

Federal Communications Commission (File Nos. W-P-C 6912 and 6966), August 5, 1994.

Federal Communications Commission (File Nos. W-P-C 6982 and 6983), September 21, 1994.

Federal Communications Commission, affidavit examining cost support for Asymmetric Digital Subscriber Loop (ADSL) video dialtone market trial, February 21, 1995.

Federal Communications Commission, affidavit examining cost support for Bell Atlantic's video dialtone tariff, March 6, 1995.

Federal Communications Commission (File Nos. W-P-C 7074), July 6, 1995.

U.S. District Court for the Eastern District of Virginia (Alexandria Division), *United States Telephone Association, et al., v. Federal Communications Commission, et al.* (Civil Action No. 95-533-A), with A.E. Kahn, affidavit October 30, 1995.

Federal Communications Commission (CC Docket No. 95-145), October 26, 1995.
Supplemental Affidavit December 21, 1995.

Expert testimony: *FreBon International Corp. vs. BA Corp. Civil Action*, No. 94-324 (GK), regarding Defendants' Amended Expert Disclosure Statement, filed under seal February 15, 1996.

Federal Communications Commission (CC Docket No. 96-46), *ex parte* affidavit, April 26, 1996.

Federal Communications Commission (CC Docket No. 96-112), affidavit filed May 31, 1996.

Federal Communications Commission (CC Docket No. 96-112), affidavit June 12, 1996.
Federal Communications Commission (CC Docket No. 96-46), July 5, 1996.
Pennsylvania Public Utility Commission, "Promises Fulfilled; Bell Atlantic-Pennsylvania's Infrastructure Development," filed January 15, 1999 (with Charles J. Zarkadas, Agustin J. Ros, and Jaime C. d'Almeida).

Rate Rebalancing

Canadian Radio-Television and Telecommunications Commission, Implementation of Regulatory Framework and Related Issues, Telecom Public Notices CRTC 94-52, 94-56 and 94-58, February 20, 1995.
Pennsylvania Public Utility Commission (Docket No. R-00963550), April 26, 1996. Rebuttal July 5, 1996.
Pennsylvania Public Utility Commission (Docket No. R-963550 C0006), August 30, 1996.
Public Utilities Commission of Ohio (Case No. 96-899-TP-ALT), February 19, 1997.
The New Jersey Board of Public Utilities (Docket No. _____), February 15, 2001.

Universal Service

Louisiana Public Service Commission (Docket No. U-20883, Subdocket A), August 16, 1995.
Tennessee Public Service Commission (Docket No. 95-02499), October 20, 1995. Rebuttal October 25, 1995. Supplementary direct October 30, 1995. Supplementary rebuttal November 3, 1995.
Mississippi Public Service Commission (Docket No. 95-UA-358), January 17, 1996. Rebuttal February 28, 1996.
Federal Communications Commission (CC Docket No. 96-45) with Kenneth Gordon, April 12, 1996.
Federal Communications Commission (CC Docket No. 96-45) with Aniruddha Banerjee, August 9, 1996.
Federal-State Joint Board (CC Docket No. 96-45), *Remarks on Proxy Cost Models*, videotape filed January 14, 1997.
New Jersey Board of Public Utilities (Docket No. TX95120631), September 24, 1997. Rebuttal October 18, 1997.
Pennsylvania Public Utility Commission (Docket No. I-00940035), October 22, 1997.
Alabama Public Service Commission (Docket No. 25980), February 13, 1998.
North Carolina Utilities Commission (Docket No. P-100, SUB 133g), February 16, 1998. Rebuttal April 13, 1998.
Mississippi Public Service Commission (Docket No. 98-AD-035), February 23, 1998. Rebuttal March 6, 1998.
Tennessee Regulatory Authority (Docket No. 97-00888), April 3, 1998. Rebuttal April 9, 1998.
Florida Public Service Commission (Docket No. 980696-TP), September 2, 1998.

Georgia Public Service Commission (Docket No. 5825-U), September 8, 2000.

Classification of Services as Competitive

Maryland Public Service Commission (Case No. 8462), October 2, 1992.
State Corporation Commission of Virginia (Case No. PUC 950067), January 11, 1996.
Maryland Public Service Commission (Case No. 8715), March 14, 1996. Surrebuttal filed April 1, 1996.
Federal Communications Commission (File No. SCL-97-003), December 8, 1997.
Pennsylvania Public Utility Commission (Docket No. P-00971307, February 11, 1998. Rebuttal February 18, 1998.
State of Connecticut, Department of Public Utility Control (Docket No. 98-02-33), February 27, 1998.
The New Jersey Board of Public Utilities (Docket No. TO 99120934), May 18, 2000.
Washington Transportation and Utilities Commission, (Docket No. UT-000883). October 6, 2000.

Costing and Pricing Resold Services and Network Elements

Science, Technology and Energy Committee of the New Hampshire House of Representatives, "An Economic Perspective on New Hampshire Senate Bill 77," April 6, 1993.
Tennessee Public Service Commission (Docket No. 96-00067), May 24, 1996. Refined with the Tennessee Regulatory Authority (Docket No. 96-00067), August 23, 1996.
New York Public Service Commission (Case Nos. 95-C-0657, 94-C-0095, 91-C-1174), May 31, 1996. Additional testimony June 4, 1996. Rebuttal July 15, 1996.
Louisiana Public Service Commission (Docket No. U-U-22020), August 30 1996. Rebuttal September 13, 1996.
Tennessee Regulatory Authority (Docket No. 96-01331), September 10, 1996. Rebuttal September 20, 1996.
New Jersey Board of Public Utilities (Docket No. TO96070519), September 18, 1996.
Pennsylvania Public Utility Commission (Docket No. A-310258F0002), September 23, 1996.
Massachusetts Department of Public Utilities (Docket Nos. D.P.U. 96-73/74, 96-75, 96-80/81, 96-83, 96-94), September 27, 1996. Rebuttal October 16, 1996.
New Jersey Board of Public Utilities (Docket No. TX95120631), September 27, 1996.
New Hampshire Public Service Commission (Docket DE 96-252), October 1, 1996.
Massachusetts Department of Public Utilities (Docket Nos. D.P.U. 96-73/74, 96-75, 96-80/81, 96-83, 96-94), October 11, 1996. Rebuttal October 30, 1996.
Federal Communications Commission (CC Docket No. 96-45), October 15, 1996.
New Hampshire Public Service Commission (Docket DE 96-252), October 23, 1996.
New Jersey Board of Public Utilities (Docket No. T096080621), November 7, 1996.
Alabama Public Service Commission (Docket No. 25677), November 26, 1996.

Delaware Public Utilities Commission, testimony re costs and pricing of interconnection and network elements, December 16, 1996. Rebuttal February 11, 1997.

State Corporation Commission of Virginia, (Case No. PUC960), December 20, 1996. Rebuttal June 10, 1997 (Case No. PUC970005).

Public Service Commission of Maryland (Case No. 8731-II), January 10, 1997. Rebuttal April 4, 1997.

Public Service Commission of the District of Columbia (Case No. 962), January 17, 1997. Rebuttal May 2, 1997.

Connecticut Department of Public Utilities (DPUC Docket No. 96-09-22), January 24, 1997.

Connecticut Department of Public Utilities (DPUC Docket No. 96-11-03), February 11, 1997.

Federal Communications Commission, response to FCC Staff Report on issues regarding Proxy Cost Models. Filed February 13, 1997.

Public Service Commission of West Virginia (Case Nos. 96-1516-T-PC, 96-1561-T-PC, 96-1009-T-PC, and 96-1533-T-T), February 13, 1997. Rebuttal February 20, 1997.

Public Utilities Commission of Ohio (Case No. 97-152-TP-ARB), April 2, 1997.

Maine Public Utilities Commission (Docket No. 97-505), April 21, 1997. Rebuttal October 21, 1997.

Vermont Public Service Board (Docket No. 5713), July 31, 1997. Rebuttal January 9, 1998. Surrebuttal February 26, 1998. Supplemental rebuttal March 4, 1998.

State of Connecticut, Department of Public Utility Control (Docket Nos. 95-03-01, 95-06-17 and 96-09-22), August 29, 1997. Rebuttal December 17, 1998.

Alabama Public Service Commission (Docket No. 26029), September 12, 1997.

Tennessee Regulatory Authority (Docket No. 97-01262), October 17, 1997.

South Carolina Public Service Commission (Docket No. 97-374-C), November 25, 1997.

Rhode Island Public Utilities Commission, direct testimony re costing and pricing principles for interconnection and unbundled network elements filed November 25, 1997.

North Carolina Utilities Commission (Docket No. P-100, SUB 133d), December 15, 1997. Rebuttal March 9, 1998.

Massachusetts Department of Public Utilities (Docket No. DTE 98-15), January 16, 1998.

Mississippi Public Service Commission (Docket No. 97-AD-544, March 13, 1998.

New Hampshire Public Service Commission (Docket No. 97-171, Phase II), March 13, 1998. Rebuttal April 17, 1998.

Massachusetts Department of Telecommunications and Energy (D.P.U. 96-3/74, 96-75, 96-80/81, 96-83, & 96-94), April 29, 1998.

Massachusetts Department of Telecommunications and Energy (Docket No. 85-15, Phase III, Part 1), August 31, 1998.

Massachusetts Department of Telecommunications and Energy (Docket No. 98-15, Phase II), September 8, 1998.

Rhode Island Public Utilities Commission (Docket No. 2681), September 18, 1998.

Maryland Public Service Commission (Case No. 8786), November 16, 1998.

New Hampshire Public Utilities Commission (Docket No. 99-018), April 7, 1999. Rebuttal April 23, 1999.

Massachusetts Department of Telecommunications & Energy (Docket No. 94-185-E), July 26, 1999.

New York Public Service Commission, (Case 98-C-1357), February 7, 2000. Panel Rebuttal Testimony filed October 19, 2000.

The New Jersey Board of Public Utilities (Docket No. TO00060356), July 28, 2000.

Bell Entry into InterLATA Markets

Federal Communications Commission (CC Docket No. 96-149), affidavit, August 15, 1996.

Federal Communications Commission (Docket No. 96-149) with Paul B. Vasington, November 14, 1996.

Georgia Public Service Commission (Docket No. 6863-U), January 3, 1997. Rebuttal February 24, 1997.

Pennsylvania Public Utility Commission, statement regarding costs and benefits from Bell Atlantic entry into interLATA telecommunications markets, February 10, 1997. Rebuttal March 21, 1997.

New York Public Service Commission, "Competitive Effects of Allowing NYNEX To Provide InterLATA Services Originating in New York State," with Harold Ware and Richard Schmalensee, February 18, 1997.

Delaware Public Utilities Commission, statement regarding costs and benefits from Bell Atlantic entry into interLATA telecommunications markets, filed February 26, 1997. Rebuttal April 28, 1997.

New Jersey Board of Public Utilities (Docket No. T097030166), March 3, 1997. Reply May 15, 1997.

Federal Communications Commission (CC Docket 96-262 *et al.*), with Richard Schmalensee, Doug Zona and Paul Hinton, *ex parte* March 7, 1997.

Public Service Commission of Maryland, statement regarding consumer benefits from Bell Atlantic's provision of interLATA service, filed March 14, 1997.

Louisiana Public Service Commission, (Docket No. U-22252), March 14, 1997. Rebuttal May 2, 1997. Supplemental testimony May 27, 1997.

Public Service Commission of West Virginia, economic analysis of issues regarding Bell Atlantic's entry into the interLATA long distance market. Filed March 31, 1997.

South Carolina Public Service Commission (Docket No. 97-101-C), April 1, 1997. Rebuttal June 30, 1997.

Kentucky Public Service Commission (Administrative Case No. 96-608), April 14, 1997. Rebuttal April 28, 1997. Supplemental rebuttal August 15, 1997.

Federal Communications Commission (CC Docket No. 96-149), April 17, 1997.

Maine Public Utilities Commission, affidavit regarding competitive effects of NYNEX entry into interLATA markets, with Kenneth Gordon, Richard Schmalensee and Harold Ware, filed May 27, 1997.

Alabama Public Service Commission (Docket No. 25835), June 18, 1997. Rebuttal August 8, 1997.

North Carolina Utilities Commission (Docket No. P-55, Sub1022), August 5, 1997. Rebuttal September 15, 1997.

Mississippi Public Service Commission (Docket No. 97-AD-0321), July 1, 1997. Rebuttal September 29, 1997.

Federal Communications Commission, CC Docket No. 99-295. Filed September 29, 1999.

Federal Communications Commission, *In the Matter of Application by Verizon New England Inc., et. al. for Authorization to Provide In-Region, InterLATA Services in Massachusetts*, September 19, 2000, Reply Declaration filed November 3, 2000. Supplemental Reply Declaration filed February 28, 2001.

Pennsylvania Public Utility Commission, (Docket No. M-00001435), January 8, 2001.

Regulatory Reform

Federal Communications Commission (CC Docket No. 80-286), December 10, 1997.

Federal Communications Commission, *In the Matter of United States Telephone Association Petition for Rulemaking—1998 Biennial Regulatory Review*, with Robert W. Hahn, filed September 30, 1998.

Reciprocal Compensation

Massachusetts Department of Telecommunications and Energy (Docket No. 98-67), September 25, 1998.

Washington Public Utilities Commission (Docket No. UT-990300), February 24, 1999. Rebuttal March 8, 1999.

Colorado Public Utilities Commission (Docket No. 99A-001T), March 15, 1999.

Massachusetts Department of Telecommunications and Energy (Docket No. D.T.E. 97-116-B), March 29, 1999.

North Carolina Utilities Commission (Docket No. P-500, Sub 10), July 9, 1999.

North Carolina Utilities Commission (Docket No. P-561, Sub 10), July 30, 1999.

Public Service Commission of South Carolina (Docket No. 1999-259-C), August 25, 1999.

Louisiana Public Service Commission (Docket No. U-24206), September 3, 1999.

Florida Public Service Commission (Docket No. 990750-TP), September 13, 1999.

New Mexico Public Regulation Commission (Case No. 3131), October 13, 1999.

Alabama Public Service Commission (Docket No. 27091), October 14, 1999.

Tennessee Regulatory Authority (Docket No. 99-00377), October 15, 1999.

Tennessee Regulatory Authority (Docket No. 99-00430), October 15, 1999.

Mississippi Arbitration Panel (Docket No. 99-AD421), October 20, 1999.

Kentucky Public Service Commission (Case No. 99-218), October 21, 1999.

Georgia Public Service Commission (Docket No. 10767-U), October 25, 1999.

Oregon Public Utility Commission (Arb. 154), November 5, 1999.

Federal Communications Commission (Docket No. 99-68), "An Economic and Policy Analysis of Efficient Intercarrier Compensation Mechanisms for Internet-Bound Traffic," *ex parte*, November 12, 1999 (with A. Banerjee and A. Ros). Reply Comments: "Efficient Inter-Carrier Compensation for Internet-Bound Traffic," (with A. Banerjee), October 23, 2000.

Georgia Public Service Commission (Docket No. 10854-U), November 15, 1999, rebuttal testimony filed November 22, 1999.

Idaho Public Utilities Commission (Docket No. GST-T-99-1), November 22, 1999, rebuttal testimony filed December 2, 1999.

Texas Public Utility Commission (Docket No. 21982), March 15, 2000, rebuttal testimony filed March 31, 2000.

Arizona Corporation Commission (Docket Nos. T-02432B-00-0026, T-01051B-00-0026), March 27, 2000, rebuttal testimony filed April 3, 2000.

Colorado Public Utilities Commission (Docket No. 00B-011T), direct testimony filed March 28, 2000.

Pennsylvania Public Utility Commission (Docket No. A-310620F0002), April 14, 2000, rebuttal testimony filed April 21, 2000.

Delaware Public Service Commission (PSC Docket No. 00-205), filed April 25, 2000.

Virginia State Corporation Commission, filed April 25, 2000.

The New Jersey Board of Public Utilities (Docket No. TO 00031063) Direct testimony filed April 28, 2000, rebuttal testimony filed May 5, 2000.

Washington Utilities and Transportation Commission (Docket No. UT-003006). Filed April 26, 2000. Rebuttal testimony filed May 10, 2000. Surrebuttal testimony filed May 26, 2000.

The New Jersey Board of Public Utilities (Docket No. TO 00031063). Filed April 28, 2000. Rebuttal testimony filed May 5, 2000.

Federal Communications Commission, (CC Docket Nos. 96-98, 95-185, WT Docket No. 97-207), "Reciprocal Compensation for CMRS Providers," June 13, 2000 (with Charles Jackson).

Colorado Public Utilities Commission (Docket No. 00B-103T), June 19, 2000.

Federal Communications Commission, *In the Matter the Remand of the Commission's Reciprocal Compensation Declaratory Ruling by the U.S. Court of Appeals for the D.C. Circuit* (CC Docket Nos. 96-98, 99-68), July 21, 2000. Reply August 4, 2000.

Montana Department of Public Service Regulation (Docket No. D2000.6.89), July 24, 2000. Rebuttal filed February 7, 2001.

Washington Utilities and Transportation Commission (Docket 003013 Part B), filed August 4, 2000. Rebuttal filed February 7, 2001.

Nebraska Public Service Commission, (Docket No. C-2328), September 25, 2000. Rebuttal testimony filed October 4, 2000.

Montana Department of Public Service Regulation (Docket No. D2000.8.124: TouchAmerica Arbitration), October 20, 2000. Rebuttal filed December 20, 2000.

Arizona Corporation Commission (Docket Nos. T-03654A-00-0882, T-01051B-00-0882), January 8, 2001.

Florida Public Service Commission (Docket No. 000075-TP), filed January 10, 2001.

Colorado Public Utilities Commission (Docket No. 00B-601T), filed January 16, 2001.

Utah Public Service Commission (Docket No. 00-999-05), filed February 2, 2001. Rebuttal testimony filed March 9, 2001.

Arizona Corporation Commission (Docket No. T-00000A-00-0194, Phase 2), March 15, 2001.

Contract Services

Superior Court Department of the Trial Court (Civil Action No. 95-6363F), affidavit, July 1996.

Connecticut Department of Public Utilities (Docket No. 99-03-17), June 18, 1999.

Service Quality Performance Plans

Georgia Public Service Commission (Docket No. 7892-U), June 27, 2000.

Florida Public Service Commission (Docket No. 000121-TP), March 1, 2001. Rebuttal filed March 21, 2001. Rebuttal in Phase II filed April 19, 2001.

North Carolina Utilities Commission (Docket No. P-100 Sub 133k, May 21, 2001.

Miscellaneous

New Mexico Public Regulation Commission (Utility Case No. 3147), December 6, 1999.

New Mexico Public Regulation Commission (Utility Case No. 3008), May 19, 2000.

United States District Court, District of Nevada (Case No. CV-S-99-1796-KJD(RJJ), December 28, 2000.

August, 2001



FOR IMMEDIATE RELEASE
May 22, 2001

Contact: Bill Menner
(515) 243-2000

MIT Economist Says Iowa Consumers Will Benefit From Qwest's Re-entry into Long-Distance Business

*Predicts annual savings of more than \$30 million, increased
competition*

DES MOINES -- Iowa consumers could save at least \$30 million a year when Qwest re-enters the long distance market in the state, according to a new study by a noted economist.

Professor Jerry A. Hausman, Director of the Massachusetts Institute of Technology (MIT) Telecommunications Economics Research Program, recently completed a detailed study of the effect of long-distance entry by Bell Operating Companies (BOCs), such as SBC in Texas and Verizon in New York (executive summary attached). Hausman found that consumers saved 10-20% on long distance in the first year after BOC entry, compared to changes in states without BOC entry. In addition, he found that local phone bills in those states where the BOC had entered the long distance market had decreased by around 4% and that the number of consumers purchasing services from Competitive Local Exchange Carriers (CLECs) increased significantly after BOC entry.

Using Hausman's formula to calculate savings for the average Iowa residential and small business customer, the projected impact of Qwest's re-entry into the Iowa long-distance market will be significant.

The average Iowa residential customer will save nearly \$35 a year in local and long distance charges, with high-volume users seeing higher savings. The average Iowa small business will save more than \$40 a year, with high-volume business customers again seeing greater savings.

"This is good news for Iowa consumers," said Iowa Competitive Telecommunications Coalition (ICTC) Executive Director Bill Menner. "It proves what we've been saying all along—that increased competition will help lower phone bills for average Iowans."

The Coalition was created to give the state's consumers a voice in advocating for greater competitive choice in communications service. The Coalition's members include residential consumers, associations, business leaders and communications companies such as Qwest. The Coalition believes that increased competition will deliver lower prices, better service and advanced technology in all sectors of the communications marketplace, local, long-distance, wireless, high-speed Internet and cable.

For more information, visit the Coalition website at www.iacompetition.org.

Effect of BOC Entry into InterLATA and IntraLATA Service in New York and Texas Executive Summary

Background

In an effort to quantify the consumer benefit of BOC entry into the long distance business, Hausman undertook the most complete effort to date to compare local and long distance telephone rates pre- and post-BOC long distance entry.

Hausman obtained a sample of local and long distance phone bills in New York, Pennsylvania, Texas and California, using them to compare pre-entry and post-entry changes in prices in a state where entry occurred to the change in prices over the same time period in a state where no entry occurred. New York was compared to Pennsylvania and Texas was compared to California. The comparison states were chosen because of similarities such as LATAs, BOC ownership of the ILEC and geography.

In an effort to quantify the effect of BOC entry on the development of local service competition, Hausman tracked the percentage of households using a Competitive Local Exchange Carrier (CLEC) rather than the BOC during the pre- and post-entry periods.

Results

New York/Pennsylvania

- In the pre-entry period, prices and monthly fees in New York and Pennsylvania were quite similar.
- Prices fell between the pre-entry and post-entry periods in both states, Pennsylvania peak-calling prices fell by 11%. Hausman found that much of this price decrease was associated with changes made by the FCC in long distance access tariffs.
- Prices in New York decreased relative to Pennsylvania. The data demonstrated that BOC entry had a substantial price-reducing effect on long-distance prices in New York. Prices in New York were 9-14% lower than they would have been in the absence of BOC entry.
- In New York, the average consumer would have paid a long-distance bill of \$18.41 in the pre-entry period and \$16.63 in the post-entry period, for a savings of \$1.78 or 11%.
- In Pennsylvania the average consumer would have paid \$19.25 in the pre-entry period and \$18.89 in the post entry period, for a savings of \$0.36 or 2%. Thus, in New York, the average consumer would have saved an additional \$1.42 or 9% relative to Pennsylvania.
- In New York after BOC entry, Hausman found a decrease in basic local service bills of 6.6%.
- Finally, Hausman found that CLECs share of the local service market in New York increased from 3.5% to 17.2% after BOC entry. This change was much larger than the CLEC increase of 1.1% in Pennsylvania where BOC entry has not occurred.

Texas/California

- In the pre-entry period, Texas had substantially higher long-distance prices than California. The average monthly fees in the two states were roughly the same.
- Prices fell between the pre-entry and post-entry periods in both states, California peak-calling prices fell by 8%. Hausman found that much of this price decrease was associated with changes made by the FCC in long distance access tariffs.
- Prices in Texas decreased relative to California. The data demonstrated that BOC entry had a substantial price-reducing effect on long-distance prices in Texas. Prices in Texas were 19-24% lower than they would have been in the absence of BOC entry.
- In Texas, the average consumer would have paid a long-distance bill of \$16.58 in the pre-entry period and \$13.54 in the post-entry period, for a savings of \$3.04 or 22%.

- In California the average consumer would have paid \$12.73 in the pre-entry period and \$12.83 in the post entry period, for a loss of \$0.10 or 1%. Thus, in Texas, the average consumer would have saved an additional \$3.14 or 23% relative to California.
- In Texas after BOC entry, Hausman found a decrease in basic local service bills of 2.8 percent.
- Finally, Hausman found that CLECs share of the local service market increased from 8% to 15.1% in Texas after BOC entry. This change was much larger than the CLEC increase of 0.9% in California where BOC entry has not occurred.

Instructions for the Local Competition and Broadband Reporting Form, FCC Form 477

FCC Form 477, Instructions for March 1, 2001 Filing (of data as of 12/31/00)
Approved by OMB 3060-0816
Estimated Average Burden Hours Per Response: 11 Hours

Instructions for the Local Competition and Broadband Reporting Form (FCC Form 477)

I. PURPOSE

The FCC Form 477 collects information on the deployment of broadband, local telephone and mobile telephony services from providers of these services. Data obtained from this form will be used to describe competition for local telecommunications services and deployment of broadband services. See *Local Competition and Broadband Reporting*, Order, FCC 00-114 (rel. March 30, 2000) for additional information about this collection.

II. WHO MUST FILE THIS FORM?

Three types of communications service providers must file this form:

• **Providers of Broadband Services:**

Facilities-based providers of broadband services (including incumbent and competitive LECs, cable companies, fixed wireless providers, terrestrial and satellite mobile wireless providers, MMDS providers, utilities, and others) must complete and file the applicable portions of this form for **each state** in which they provide **250 or more** "full or one-way broadband" lines (or wireless channels) or provide "full or one-way broadband" service to **250 or more** end user consumers. The applicable portions of the form are: 1) the Cover Page; 2) Part I; 3) Part IV (if necessary); and Part V.

Note: an entity is considered a "facilities-based broadband provider" if it provides broadband services over facilities that it owns or provisions/equips as broadband. More specifically, "facilities-based providers" include entities that provide broadband services over their own "local loop" facilities connecting to end users, or over unbundled network elements (UNEs), special access lines, and other leased lines and wireless channels that they obtain from other entities and equip as broadband.

• **Providers of Local Telephone Services:**

Incumbent and competitive local exchange carriers (LECs) must complete and file the applicable portions of the form for **each state** in which they provide **10,000 or more** "voice-grade equivalent lines (or wireless channels)." For purposes of this threshold, filers need only consider the number of voice-grade equivalent lines (or wireless channels) that would be reported in Line D.II-7(a) of the form. The applicable portions of the form are: 1) the Cover Page; 2) Part II; 3) Part IV (if necessary); and Part V.

• **Providers of Mobile Telephony Services:**

Facilities-based providers of mobile telephony services (see 47 C.F.R. 20.15(b)(1)) must complete and file the applicable portions of this form for **each state** in which they serve **10,000 or more** mobile telephony subscribers. Firms providing mobile telephony services using spectrum obtained via lease or other agreement with a Band Manager must also complete the applicable portions of this form. The applicable portions of the form are: 1) the Cover Page; 2) Part III; 3) Part IV (if necessary).

Note: Mobile telephony is defined as real-time, two-way switched voice service that is interconnected with the public switched network using an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless handoff of subscriber calls.

Important Note for All Providers about Calculating Reporting Thresholds: Reporting thresholds are calculated based collectively on all commonly-owned and commonly-controlled affiliates operating in a given state. [See 47 U.S.C. § 153(1) (establishing a 10% equity interest as indicia of ownership).] That is, a provider must report for each state in which it and all affiliates collectively meet reporting thresholds. Such affiliates are, nevertheless, permitted to file forms for such states either combined or separately -- at their discretion.

III. LINE-BY-LINE INSTRUCTIONS FOR COMPLETING FORM FCC 477

A. Cover Page -- Name and Contact Information (All Filers)

Line 1: Select from the drop-down menu the applicable filing status.

Line 2: Provide the name of the entity whose data is contained in the form.

Line 3: Select the category that best describes the type of technology that you use to provide services. Choose from Cable Coaxial, Fiber, Fixed Wireless, Mobile Wireless, Reseller, Satellite, Wireline Local Exchange Carrier, or Other.

Line 4: In general, you can combine operations in a state or report them separately. However, entities that are, or are affiliated with, an incumbent LEC must complete and file separate forms for their incumbent LEC and non-incumbent LEC operations. All filers should indicate whether this filing is for an incumbent LEC filing or a non-incumbent LEC filing.

Line 5: You must provide a single name, such as a holding company name, so that all affiliated or commonly operated companies can be identified. See "Important Note for All Providers about Calculating Reporting Thresholds," above, for more information on which companies should be considered to be affiliated or commonly-controlled. The Excel 97 spreadsheet version of the form (preferred) has a drop down box with standardized names. The Lotus 123 spreadsheet version of the form has a list of standardized names. If your company's name is not in the list, enter a name in the space provided.

Line 6: File a separate form for each state in which you meet the filing threshold. In this line, indicate the state for which you are filing data. For this purpose, treat the District of Columbia, Puerto Rico, and the U.S. Virgin Islands as states. Voluntary submissions for American Samoa, Guam, and the Northern Mariana Islands may also be indicated on this line.

Line 7: Provide a contact name for the person who prepared this filing.

Line 8: Provide the telephone number and e-mail address for the contact person listed in Line 7.

Line 9: File a revised form if you discover mistakes. Use Line 9 to indicate whether this filing is an original or a revised filing.

Line 10: Indicate whether you request non-disclosure of some or all of the information reported in the Form 477. You may request non-disclosure if you believe that this information is privileged and confidential and that public disclosure of such information would likely cause substantial harm to the competitive position of the filer. Note that if you request non-disclosure of some or all of the data, you must also file a public version of the form with such information redacted, as explained below in Sections IV-B and IV-C of the instructions.

Line 11: If you requested non-disclosure in Line 10, indicate whether the file is your complete or redacted filing. See Sections IV-B and IV-C of the instructions for information on preparing a redacted file.

B. Part I: Broadband (Broadband Providers Only)

INCLUDE in Part I: In this section, broadband providers report information about their **full and one-way broadband lines/wireless channels** (for purposes of this section “lines”) in service to end users. **Full broadband lines** are lines with information carrying capability in excess of 200 Kbps in both directions, simultaneously. **One-way broadband lines** are lines with information carrying capacity in excess of 200 Kbps in one direction (typically downstream) and less than or equal to 200 Kbps in the other direction (typically upstream). For purposes of this information collection, the information carrying capacity of a line or wireless circuit is the customer's authorized maximum usage (“speed”) on that line or wireless circuit. Filers must report broadband lines that they provide over their own “local loop” facilities connecting to end users as well as those provided over UNEs, special access lines, and other leased lines that the filer obtains from another entity and equips as broadband.

EXCLUDE in Part I: Broadcast cable television service and other multi-channel video programming; video-on-demand type service unless it is bundled with Internet-type access or uses Internet-type delivery protocols; and channelized services which restrict the customer to both transmitting and receiving data at 200 Kbps or less. Exclude lines that connect two locations of the same customer (not to be reported anywhere on FCC Form 477) and special access and private line services that you believe are used for exchange telephone service (to be reported in Part II-C). Where a provider does not know whether a high capacity line or wireless channel is being used as a broadband line or as a telephone service line, it should report that line in Part II, on Line C.II-6. If you provide a line to another filer who is likely to include services provided over that line in its own report (for example, because the other filer equips the line or UNE as broadband), then that line should be reported in Part II-C of your filing.

Report broadband lines on Lines I-1 through I-8 based on the technology employed by the part of the line that actually connects to the end user's premises. If different technologies are used in different directions, then report the line based on the direction for which you provide the greatest bandwidth.

Lines

Important note about categorizing services to provide line counts: In general, a single service offering should be reported in only one part of the form by a single reporter. In categorizing lines, base your response on the portion of the line or channel that connects to the end user's premises and the type

of service that is provided. **Count only lines that are in service**, including lines that you provide to end users and lines that you provide to companies that in turn use those lines to provide broadband or telephone service to end users.

Line A.I-1: Report the number of broadband lines/wireless channels used to provide asymmetric xDSL service.

Line A.I-2: Report the number of broadband lines/wireless channels provided over other traditional wireline facilities including symmetric xDSL service.

Line A.I-3: Report the number of broadband lines/wireless channels provided over coaxial carrier systems (including hybrid fiber-coaxial systems).

Line A.I-4: Report the number of broadband lines/wireless channels provided over optical carrier (fiber to the end user).

Line A.I-5: Report the number of broadband lines/wireless channels provided over satellite.

Line A.I-6: Report the number of broadband lines/wireless channels provided over terrestrial fixed wireless.

Line A.I-7: Report the number of broadband lines/wireless channels provided over terrestrial mobile wireless.

Line A.I-8: Report the number of broadband lines/wireless channels provided over all other technologies.

Columns

Note about Reporting Percentage Breakouts: Parts I, II, and III of Form 477 direct filers to provide percentages breakouts for specific line/wireless channel counts. If disaggregated counts exist for another purpose, then these must be used to calculate the requested percentage breakouts. However, filers are not expected to calculate percentages based on exhaustive counts performed solely for this task. Rather, where disaggregated counts do not exist, filers may provide good faith estimates of percentages based on the best information available to the filer. For example, if there is a pricing distinction between services provided to residential, small business and large business customers, then billing information should be used to estimate the percentage of lines provided to residential and small business customers. In the absence of such counts, however, filers should rely on studies done for other purposes, such as marketing and business plan information, demographic data, etc. A filer should conduct limited special studies only in the event that it cannot provide estimates that it reasonably expects to be accurate within plus or minus five percentage points.

Column (a): Report the number of total one-way and full-broadband lines/wireless channels in service that are used to provide service for each of the lines described above (Lines A.I-1 through A.I-8).

Column (b): Report the percentage of total lines from column (a) that are used by residential and small business customers (as opposed to large business, institutional, or other customers). In Part I, classify service provided to customers as residential and small business if they take broadband services normally associated with residential customers. Such lines could be classified as residential and small business

based on marketing information, such as demographics associated with the geographic area where the lines are provided.

Column (c): Report the percentage of broadband lines and wireless channels from column (a) that are provided over your own **local loop** facilities connecting to the end user's premises. Count as your own such facilities, those facilities that you actually owned as well as facilities that you obtained the right to use from other entities as dark fiber or satellite transponder capacity (and that you used as part of your own system). Do **not** include, in column (c), broadband lines that you provided over UNEs, special access lines, and other leased lines that you obtained from another entity and equipped as broadband.

Column (d): Report the percentage of total lines from column (a) that are provided – that is, billed – directly to end users by the filer. End users are residential, business, institutional and government customers who use the services for their own purposes and do not resell them to other entities. Classify lines/wireless channels as end-user lines if they are billed or marketed by your agents. For example, do not classify as end user, broadband lines/channels provided to Internet Service Providers that are incorporated into their premium Internet service options for provision to their end-user consumers.

Column (e): Report the percentage of total lines from column (a) that deliver to the end-user consumer greater than 200 Kbps in both directions, simultaneously.

Column (f): Report the percentage of total lines from column (a) that deliver to the end-user consumer greater than 2 Mbps in both directions, simultaneously. Note that every line reported in this column would, by definition, also be reported in column (e). Thus, column (f) should not contain a greater percentage than column (e).

C. Part II: Wireline and Fixed Wireless Local Telecommunications (Local Telephone Service Providers Only)

INCLUDE in Part II: Report all **voice-grade equivalent local exchange service lines** and all lines that are used for exchange access services that you do not report in Part I. Include lines you provide using wireline as well as fixed wireless technologies. Include lines (or wireless channels) that you reported as broadband in Part I, but that your customer can switch between broadband and local exchange or exchange access service without you changing how the line (or wireless channel) is provisioned.

EXCLUDE in Part II: Do **not** report in Part II lines not yet in service, lines used for interoffice trunking, lines that connect two locations of the same customer, company official lines, or lines that you provide as a broadband service reported in Part I. Do not report in Part II transport lines between your switching center and Internet protocol, ATM or circuit switched networks, where you already are reporting the portion of the line between the end user and your switching center, even if you multiplexed those lines and provided higher capacity lines between your switching center and those networks.

Note for reporting channelized service: In Part II-A and Part II-B, providers are to report voice-grade equivalent lines. Count as one voice-grade equivalent line: traditional analog POTS lines, Centrex-CO extensions, and Centrex-CU trunks. Count lines based on how they are charged to the customer rather than how they are physically provisioned. For example, count Basic Rate Integrated (BRI) Services Digital Network (ISDN) lines as two voice-grade equivalent lines. Report 8 voice-grade equivalent lines if a customer buys 8 trunks that happen to be provisioned over a DS1 circuit. If a customer buys a DS1 circuit that is provided as channelized service, report 24 voice-grade equivalent lines, even if there is

some indication that the customer is only using 8 of the derived lines. Lines reported in Part II, section C, however, should **not** be reported in voice-grade equivalents, but should reflect actual circuit counts. **Note for competitive LECs providing local exchange service over hybrid fiber-coaxial cable television systems:** If you cannot determine the number of lines from your records, you are permitted to report the number of subscribers.

Lines

Important note about categorizing services to provide line counts: see this note, above, at page 3.

In **Lines A.II-1** (service provided to end users) and **Lines B.II-2 through B.II-3** (service provided to other carriers), report voice-grade equivalent lines (or wireless channels) used to provide voice telephone service. By “voice telephone service,” we mean local exchange or exchange access services that allow end users to originate and terminate local telephone calls on the public switched network, whether used by the end user for voice telephone calls or for other types of calls carried over the public switched network (for example, lines used for facsimile equipment). Filers report voice telephone service in terms of voice-grade equivalent lines or wireless channels. Thus, a voice-grade equivalent line (or wireless channel) is a line or channel that directly connects an end user to a carrier and allows the end user to originate and terminate local telephone calls on the public switched network. Voice-grade equivalent lines include high capacity lines that are channelized to provide voice-grade service. See “Note for reporting channelized service,” above, at page 5.

Line A.II-1: Report total voice-grade equivalent lines/wireless channels you provided directly to end-user consumers. Include lines provided to end users by your agents or under traditional marketing arrangements. For example, include lines provided to shared tenant service providers.

Line B.II-2: Report total lines/wireless channels you provided to other communications carriers under a Total Service Resale arrangement (i.e., provided pursuant to section 251(c)(4) of the Communications Act of 1934, as amended).

Line B.II-3: Report total lines/wireless channels you provided to other communications carriers under other resale arrangements.

In **Lines C.II-4 through C.II-6**, report the actual number of lines billed to the customer. Note that in Line C.II-6, the customer may be either an end user or another telecommunications carrier. Do not convert high capacity lines into voice-grade equivalent counts. Include high capacity lines that would meet the definition of broadband, but that are provided to another entity who is likely to report as broadband any services provided over those lines.

Line C.II-4: Report lines/wireless channels that you provided under a UNE loop arrangement, where you do **not** provide switching for the line. Include the high frequency portion of the loop if sold as a UNE.

Line C.II-5: Report lines/wireless channels that you provided under a UNE loop arrangement, where you also provide switching for the line.

Line C.II-6: Report special access lines that you do not provide as broadband and private lines that connect an end-user premise to a telecommunications carrier and that you do not provide as broadband.

Line D.II-7: Report the total lines/wireless channels reported in Lines A.II-1, B.II-2, and B.II-3.

Columns

Column (a): For **Lines A.II-1** (service provided to end users), **Lines B.II-2 through B.II-3** (service provided to other carriers), and **Line D.II-7** (total voice-grade equivalent lines in service), report voice-grade equivalent lines used to provide local exchange services. For **Lines C.II-4 through C.II-6** (UNEs, and special access and private lines not provided as broadband), report the number of lines or wireless channels (*i.e.*, **not** the voice-grade equivalent of those lines or wireless channels) that are used for exchange access services that you do not report in Part I.

Note: See note above, page 4, about reporting data on percentages.

Column (b): Report percentage of column (a) used for service billed to residential and small business customers. In Part II, classify lines provided to other carriers as residential and small business if the lines are ordered in quantities of fewer than four (4) voice-grade equivalent lines, if they are ordered as services rated as residential or small business, or based on marketing information, such as demographic information associated with the geographic areas where the lines are provided. Include as residential lines that you provide to a shared tenant service provider in an apartment building.

Column (c): Report percentage of lines and wireless channels in column (a) provided over your own **local loop** facilities connecting to the end user's premises. Count as your own such facilities, those facilities that you actually owned as well as facilities that you obtained the right to use from other entities as dark fiber or satellite transponder capacity (and that you used as part of your own system). Do **not** include, in column (c), lines provided over UNE loops that you obtained from another carrier.

Note for competitive LECs that own telephone switches: A competitive LEC should include, in column (c), a line for which it provided its own switching **only** if it also owned (as just discussed) the local loop connecting to the end user's premises.

Column (d): Report percentage of column (a) provided over UNE loops (including UNE loops obtained on a stand-alone basis and also UNE loops obtained in combination with other UNEs).

Column (e): In column (e), **incumbent LECs** should report the percentage of column (a) that they offered through switching centers in which another carrier had at least one operational collocation arrangement ("ILEC COLO switching center"). **Other reporting carriers** should report in column (e) the percentage of column (a) that they provided through use of a collocation arrangement. Thus, a competitive LEC that provided lines on a pure resale basis would report 0% in column (e), even if some of its resold lines were served from incumbent LEC switching centers in which some other entity had a collocation arrangement. Also, a competitive LEC would **not** report in column (e) any line served by means of a combination of UNEs (e.g., "UNE-Platform") that allows the competitive LEC to avoid using a collocation arrangement to serve that line. Therefore, a competitive LEC's entry in column (e) logically cannot be larger than its entry in column (d).

Note: For the purposes of completing Part II, an "ILEC COLO switching center" is an incumbent LEC switching center in which one or more competitive LECs has an operational collocation arrangement as defined in 47 C.F.R. §51.5. A switching center is a location containing one or more switches. Do not consider separate three-digit telephone prefixes as separate switching centers. Consider a remote as a separate switching center if a competing carrier could obtain a UNE loop **only** at the remote switch rather than at the host switch. This definition of a switching center is different from wire center based definitions of switching centers, which include all remote switch locations as switching centers. If

collocation occurs only at a remote switch, treat all lines served at the remote as being provided at an ILEC COLO switching center and treat lines at the host switch as not being provided at an ILEC COLO switching center.

Column (f): For Line D.II-7, report percentage of column (a) carried over cable coaxial facilities used in the part of the line/wireless channel at the end user location.

Column (g): For Line D.II-7, report percentage of column (a) carried over fixed wireless facilities used in the part of the line/wireless channel at the end user location.

Column (h): For Line D.II-7, report percentage of column (a) carried over all other facilities, including but not limited to twisted copper pair, used in the part of the line/wireless channel at the end user location.

D. Part III: Mobile Local Telephone (Mobile Telephony Providers Only)

Line A. III-1: Report all mobile telephone subscribers served over your own facilities that give customers the ability to place or receive calls from the public switched telephone network. Include: satellite, cellular, and PCS telephone service & other terrestrial mobile services; and, units in service that combine voice telephone with other services. Report only mobile telephony subscribers that you serve using spectrum licenses you own or manage, and not subscribers that you serve via resale of another firm's facilities.

Note: Exclude mobile services that customers cannot use to directly place calls to subscribers of ordinary telephone service, such as dispatch services and one-way or two-way paging services. Also exclude voice services that permit communications between only a narrow range of locations such as automobile units that permit drivers to communicate only with a specific road service.

Column (a): Report the total number of subscribers, as described above, in the state. Count as a subscriber a mobile handset, car-phone or other activated voice unit that has a unique phone number and that can place and receive calls from the public switched network. Mobile telephony subscriber counts by state should be based on billing addresses, not area codes of telephone numbers provided to subscribers.

Column (b): Report the percentage of subscribers in column (a) that you bill directly to end users (as opposed to those units in service that were provided through resellers or distributors for pre-paid service).

E. Part IV: Explanations and Comments (All Filers, only if necessary)

Complete Part IV if you wish to furnish any explanatory information with your data. Filers should identify the Part and Line to which their comment applies in the columns provided.

F. Part V: Zip Code Listings (Broadband Providers and Local Telephone Service Providers)

Line V-1: Report the 5 digit Zip Codes -- for this state -- in which you provide service to end user locations.

Column (a): If you file broadband information in Part I, you must provide a list of Zip Codes in the

state in which you provide broadband service.

Column (b): If you file local exchange service information in Part II, then you must provide a list of Zip Codes in the state in which you provide local exchange service. Providers of mobile telephony services need not provide this information.

Note: These Zip Code lists should correspond to areas in which service is actually being used by customers, including "point Zip Codes" (i.e., a Zip Code assigned to a particular customer). The list should not include authorized territory in which you have no customers in service, planned build-out, location of facilities, etc. The list can be based on engineering information (such as maps showing actual service territory) or on billing information, such as the Zip Codes of actual customers. If the latter approach is selected, please review the resulting list and delete any Zip Codes which clearly are out of your service territory and which appear only because the billing address is likely different from the service address.

IV. GENERAL INFORMATION

A. Where and When to File

1. When to File

Service providers that meet the reporting thresholds must file the FCC Form 477 semi-annually:

- March 1st of each year: providers must file data as of December 31 of the preceding year.
- September 1st of each year: providers must file data as of June 30 of the same year.

2. Where to File

All filers **must mail the Certification Statement and 3.5 inch floppy diskette(s), or compact disk, containing your completed Form 477(s) to:** Industry Analysis Division, Rm. 6-A220, 445 12th St., S.W., Washington, D.C. 20554. The Certification Statement is the single page that constitutes Section V of these Instructions.

B. How to File

1. Preparation of Data Files

You must file your local competition and broadband deployment data using the electronic version available at <http://www.fcc.gov/formpage.html> or by contacting International Transcription Services (ITS) at (202) 857-3800. Form 477 will change over time, so filers must obtain the latest version of this spreadsheet each filing period.

The electronic version of Form 477 is provided in two formats: Excel 97 and Lotus 123 Version 5. The Excel 97 version contains drop-down boxes and some edit checks. The Lotus version should be usable in most spreadsheet programs. **Once you complete a filing, rename the file in accordance with instructions provided below.** If you wish to assert confidentiality for any information provided in the filing, you must provide a redacted version of the file, renamed in accordance with the instructions provided below. If you do not provide a redacted version of the file using the proper file names, you risk having confidential information released.

Note: If you are required to complete a particular Part of Form 477, answer all the questions within that Part; if a particular question in that Part does not apply to you, enter the number "0" (zero) as your response. For non-zero entries, enter all digits of the number. You may not move cells, insert or delete rows, or change the validation or formatting characteristics of any cell. **If the FCC cannot load your files into its databases as a result of modifications to the file, the file will be returned to you for correction and resubmission.** When a filer submits multiple Form 477s, the filer may place multiple spreadsheet files on a single 3.5 inch IBM format floppy diskette, or on a compact disk. However, filers must save each Form 477 as a separate spreadsheet file. Do not submit multiple Form 477 worksheets within a single Excel 97 workbook or as multiple levels in a single Lotus file.

Each file name must adhere to the following convention:

SST#Hyearname.XLS or SST#Hyearname.WK4; where:

SS is the two letter post office abbreviation for the state.

T is a single character representing principal filing type. Since incumbent LEC (ILEC) data must be filed separately from non-ILEC data, this convention distinguishes the files. In addition, this character is used to distinguish refiled and redacted data. Use the following codes:

- A = original filing for non-ILEC operations
- B = original filing for ILEC operations
- C = original redacted filing for non-ILEC operations
- D = original redacted filing for ILEC operations
- E = revised filing for non-ILEC operations
- F = revised filing for ILEC operations
- G = revised redacted filing for non-ILEC operations
- H = revised redacted filing for ILEC operations

is a "sequence number" (i.e., 1, 2, 3, etc.) to be used to differentiate what would otherwise be identically named files when the file names are constructed according to the convention specified here. If no such redundancy of file names occurs, use the number "1" in place of the character "#".

H is the half of year, use:
"J" for data as of June 30
"D" for data as of December 31

year is the last two digits of the year in which the filing is being made (e.g., 2000 = 00).

name is the name identified on Line 2 of the Cover Page of Form 477. If you use software that limits file names to 8 characters plus a three character file extension, then use a one-character name abbreviation and identify that name in the Certification Statement.

Example: NCB1J00BellSouth.XLS

2. Additional Directions for Filing

Filers must mail the Certification Statement (which is the single page that constitutes Section V of these Instructions) and 3.5 inch floppy diskette(s), or compact disk, containing your completed Form 477(s) to: Industry Analysis Division, Rm. 6-A220, 445 12th St., S.W., Washington, D.C. 20554. **The Certification statement must be signed in ink by an officer of the filer of one of the legal entities whose data is included.** An officer is a person who occupies a position specified in the articles of incorporation (or partnership agreement), and would typically be president, vice president for operations, vice-president for finance, comptroller, treasurer or a comparable position. If the filer is a sole proprietorship, the owner must sign the certification.

C. Requesting Confidentiality

Some information from the FCC Form 477 may be made publicly available. Any respondent to this form may submit a request that information on the FCC Form 477 not be made routinely available for public inspection by so indicating on Line 10 of the form and on the Certification Statement. See also 47 C.F.R. §§0.457, 0.459, 1.7001(d), 43.11(c); *Examination of the Current Policy Concerning the Treatment of Confidential Information Submitted to the Commission*, FCC 98-184 (rel. Aug. 4, 1998). Respondents seeking confidential treatment should provide a separate floppy diskette, or compact disk, containing a redacted version of all files. Note that these redacted files must be given different names from the complete filings, as specified above. Redacted data should be replaced with "xxxxxx" in the redacted data file.

D. Obligation to File Revisions

Filers must submit a revised form if the filer discovers a significant error in the data. For counts, a difference amounting to 5 percent of the filed number must be refiled. For percentages, a difference of 5 percentage points is significant and must be refiled.

Revisions should consist of a certification statement and one or more electronic files. Carriers should refile all data for a state if one or more data element must be revised. A refiled Form 477 spreadsheet should contain all appropriate data for the state, not just the corrected figures. Note that files containing revisions must be given different names from the original filings, as specified above, Section IV-B.1.

E. Compliance

Service providers that are required to file the Form 477 but fail to do so may be subject to the enforcement provisions of the Communications Act and any other applicable law.¹

¹ 47 U.S.C. §§ 502, 503.

V. CERTIFICATION STATEMENT

**FCC Form 477 Local Competition and Broadband Reporting
CERTIFICATION STATEMENT**

Mail to Industry Analysis Division
 Rm. 6-A220
 445 12th St, SW
 Washington, D.C. 20554

This filing is an (check one) original filing revised filing

Organization name: _____

Number of files provided for this reporting period: _____

Year (of the data): _____ Data as of: [Check one: June 30___; December 31 ___]

I certify that I am an officer of _____; that I have examined the information contained in the data files attached herein and that to the best of my knowledge, information and belief, all statements of fact contained in such files are true and that said files represent an accurate statement of the affairs of the above named respondent as of the following date:

If I have requested non-disclosure of some or all of the information in FCC Form 477 by so indicating on Line 10 of the form, I certify that this information is privileged and confidential and that public disclosure of such information would likely cause substantial harm to the competitive position of the respondent.

PRINTED NAME: _____

POSITION: _____

SIGNATURE: _____

DATE: _____

Persons making willful false statements in the report form can be punished by fine or imprisonment under the Communications Act, 47 U.S.C. 220(e).

CONTACT PERSON: _____

TELEPHONE NUMBER: _____

VI. DISCLOSURE, PRIVACY ACT, PAPERWORK REDUCTION ACT NOTICE

The Privacy Act of 1974 and the Paperwork Reduction Act of 1995 require that when we ask you for information, we must first tell you our legal right to ask for the information, why we are asking for it, and how it will be used. We must also tell you what could happen if we do not receive it and whether your response is voluntary, required to obtain a benefit, or mandatory under the law. See Privacy Act of 1974, P.L. 93-579, December 31, 1974, 5 U.S.C. § 552a (e)(3), and the Paperwork Reduction Act of 1995, P.L. No. 104-13, 44 U.S.C. § 3501, *et seq.*

Our legal right to ask for this information is sections 1.7000-1.7002, 20.15, 43.01, 43.11 of the Federal Communications Commission's rules require. 47 C.F.R. §§ 1.7000-1.7002, 20.15, 43.01, 43.11. Your response is mandatory.

This collection of information stems from the Commission's authority under Sections 4(i), 201, 218-220, 251-252, 303(r), 332, and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 201, 218-220, 251-252, 303(r), 332, and 403, and section 706 of the Telecommunications Act of 1996. The data in the worksheet will be used to monitor the deployment of broadband services and the development of local telephone service competition. Selected information provided in the worksheet will be made available to the public in a manner consistent with the Commission's rules and orders.

We have estimated that each response to this collection of information will take, on average, 11 hours. Note that many companies will file multiple responses and that this estimated average reflects the fact that many companies will be required to file only a single service count that should be readily available from internal company records. Our estimate includes the time to read the instructions, look through existing records, gather and maintain the required data, enter the data in a Form 477 spreadsheet, prepare a floppy diskette, or compact disk, and certification for each state, and actually file the report. If you have any comments on this estimate, or how we can improve the collection and reduce the burden it causes you, please write the Federal Communications Commission, AMD-PER, Washington, D.C. 20554, Paperwork Reduction Project (3060-0855). We also will accept your comments via the Internet if you send them to jboley@fcc.gov. Please **DO NOT SEND COMPLETED WORKSHEETS TO THIS ADDRESS.**

Remember -- You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid Office of Management and Budget (OMB) control number. This collection has been assigned an OMB control number of 3060-0816.

The Commission is authorized under the Communications Act of 1934, as amended, to collect the personal information we request in this form. If we believe there may be a violation or potential violation of a statute or a Commission regulation, rule, or order, your filing may be referred to the Federal, state, or local agency responsible for investigating, prosecuting, enforcing, or implementing the statute, rule, regulation, or order. In certain cases, the information in your worksheet may be disclosed to the Department of Justice, court, or other adjudicative body when (a) the Commission; or (b) any employee of the Commission; or (c) the United States government, is a party to a proceeding before the body or has an interest in the proceeding.

Reporting entities failing to file the worksheet in a timely fashion may be subject to penalties under the Communications Act, including Sections 502 and 503 (b).