

ORIGINAL

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION
DIRECT TESTIMONY
OF
MICHAEL J. MAJOROS, JR.
ON BEHALF OF
AND
AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.
AND
MCI TELECOMMUNICATIONS COMPANY
AND
MCI METRO ACCESS TRANSMISSION SERVICES, INC.
DOCKET NO. 960833-TP/960846-TP/971140-TP

November 13, 1997

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Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Michael J. Majoros, Jr. I am Vice President of the economic consulting firm of Snavely King Majoros O'Connor & Lee, Inc. ("Snavely King"). My business address is 1220 L Street, N.W., Suite 410, Washington, D.C. 20005.

Q. PLEASE DESCRIBE SNAVELY KING.

A. Snavely King was originally founded in 1970 to conduct research on a consulting basis into the rates, revenues, costs and economic performance of regulated firms and industries. The firm has a professional staff of 16 economists, accountants, engineers and cost analysts. Most of the firm's work involves the development, preparation and presentation of expert witness testimony before Federal and State

1 regulatory agencies. Over the course of the firm's 26-year history, its
2 members have participated in over 500 proceedings before almost all of
3 the state commissions and Federal commissions that regulate
4 telecommunications companies, utilities, and transportation industries.

5

6 **Q. PLEASE DESCRIBE THE TYPE OF WORK YOU HAVE PERFORMED**
7 **WHILE AT SNAVELY KING.**

8

9 A. I have provided consultation specializing in accounting, financial and
10 management issues. I have testified in over 80 regulatory proceedings. A
11 significant number of these appearances have related to the subject of
12 telecommunications and public utility depreciation. Exhibit MJM-1 to this
13 testimony summarizes my appearances relating to depreciation. I have
14 also negotiated and/or represented various user groups in fifteen of the
15 Federal Communications Commission's ("FCC's") three-way triennial
16 depreciation rescription conferences. Page 1 of MJM-2 identifies
17 those conferences. I have also participated in several regulatory
18 proceedings in which depreciation was an issue that was ultimately
19 settled. Page 2 of MJM-2 summarizes these proceedings.

20

21 **Q. WHAT WAS YOUR EMPLOYMENT PRIOR TO JOINING SNAVELY**
22 **KING?**

1 A. I joined Snavelly King in 1981 and have been with the firm since that time.
2 My prior employment and educational background is summarized in
3 Exhibit MJM-3 to this testimony.

4

5 **Q. FOR WHOM ARE YOU APPEARING IN THIS PROCEEDING?**

6

7 A. I am appearing on behalf of MCI Telecommunications Corporation ("MCI")
8 and AT&T Communications of the Southern States, Inc. ("AT&T").

9

10 **Q. WAS THIS TESTIMONY PREPARED BY YOU OR UNDER YOUR**
11 **DIRECT SUPERVISION?**

12

13 A. Yes, it was. I should note, however, that this testimony and its analytical
14 framework draws heavily upon work performed by myself and others at
15 Snavelly King on behalf of AT&T, MCI, and AT&T Canada LDS for use in
16 other proceedings.

17

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

19

20 A. AT&T and MCI have asked me to identify the appropriate plant lives to be
21 used in Total Element Long Run Cost ("TELRIC") and other incremental
22 cost studies. Specifically, I am to provide plant lives in conformance with
23 the FCC's requirements.¹

1 Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

2

3 A. I recommend that the projection lives and future net salvage values
4 underlying the depreciation rates prescribed by the FCC for BellSouth in
5 Florida as set forth in the FCC's 1995 prescription of BellSouth's
6 depreciation rates be used for the determination of cost based rates in this
7 proceeding.² A majority of this testimony addresses lives.

8

9 Q. DOES THE FCC SPECIFY THE PLANT LIVES TO BE USED IN THE
10 PRICING OF UNBUNDLED NETWORK ELEMENTS?

11

12 A. Yes, indirectly. The FCC rules require that only forward-looking costs be
13 used in the setting of interconnection prices.³ The Florida Public Service
14 Commission's adoption of TSLRIC reflects a consistent conceptual
15 requirement. Forward-looking costs require the use of economic
16 depreciation rates.⁴ To comply with this requirement, the plant lives used
17 in the calculation of costs must be based upon the expected economic
18 lives of newly placed plant.⁵ In depreciation proceedings, such plant lives
19 are termed "projection lives," to differentiate them from "remaining lives"
20 and "average service lives" which reflect past plant placements.

21

22 Q. ARE BELL SOUTH'S CURRENT INTRASTATE DEPRECIATION RATES
23 BASED ON PROJECTION LIVES?

1 A. No. BellSouth's current intrastate depreciation rates are based on
2 estimated remaining lives, and embedded plant and reserve balances as
3 of December 31, 1991. They are inappropriate for forward-looking cost
4 studies.

5
6 **Q. ARE THE FCC'S PROJECTION LIVES FORWARD-LOOKING?**

7
8 A. Yes. Over a decade ago the FCC directed its staff to put less emphasis
9 on historic data in estimating productive lives, and to pay "closer attention
10 to company plans, technological developments and other future-oriented
11 analyses."⁶

12
13 Recently, the FCC reaffirmed its forward-looking orientation in connection
14 with the simplification of its depreciation prescription practices. The
15 FCC prescribed a range of projection lives which could be selected by
16 carriers for prescription on a streamlined basis. The ranges were based
17 upon "statistical studies of the most recently prescribed factors. These
18 statistical studies required detailed analysis of each carrier's most recent
19 retirement patterns, the carriers' plans, and the current technological
20 developments and trends."⁷ As such, this streamlined prescription
21 practice assures the development of projection lives that allow forward-
22 looking capital recovery.

1 Q. DO YOU BELIEVE THE FCC STAFF HAS FOLLOWED THE FCC'S
2 DIRECTIVE TO EMPHASIZE FORWARD-LOOKING ANALYSES?

3

4 A. Yes. In my experience in fifteen FCC triennial represetion conferences
5 (including BellSouth represetion conferences), the FCC staff always
6 used a forward-looking approach to setting depreciation rates.

7

8 The FCC staff rarely relied solely on historical data to set depreciation
9 parameters. The FCC bases its parameter prescriptions upon the studies
10 and information supplied by the individual companies, specific company
11 plans, information submitted by state commission staffs, consumer groups
12 and its broad industry-wide experience.

13

14 Q. IS THERE EMPIRICAL EVIDENCE THAT THE PROJECTION LIVES
15 PRESCRIBED BY THE FCC HAVE BEEN FORWARD-LOOKING?

16

17 A. Yes. I would point to recent trends in the depreciation reserve levels in
18 the industry, generally, and BellSouth specifically. As the FCC has
19 recognized, "[t]he depreciation reserve is an extremely important indicator
20 of the depreciation process because it is the accumulation of all past
21 depreciation accruals net of plant retirements. As such, it represents the
22 amount of a carrier's original investment that has already been returned to
23 the carrier by its customers."⁸ The FCC's recognition of the reserve level

1 as an indicator of the depreciation process can best be understood by
2 examining a steady state example.

3
4 Assume that we start with a stable environment in which the average age
5 of plant is 9 years and the expected life of plant is 27 years. I have
6 assumed the addition rate, retirement rate and straight-line accrual rate
7 are all 3.7 percent (1/27), and the reserve level is stable at 33 percent of
8 plant in service (9 years/27 years).⁹

9
10 As we vary these factors, we can see the effect on the reserve level. For
11 example:

12

13 • If the addition rate were to increase above 3.7
14 percent, the reserve level would go down. This
15 should not be a cause for concern, since the average
16 age of plant would similarly represent a lower percent
17 of its expected life and the reduced reserve level is
18 anticipated in a growing environment.

19

20 • If the retirement rate were to increase above 3.7
21 percent, the reserve level would also go down. This
22 would be a cause for concern, since it would indicate
23 that the actual life of plant is shorter than previously

1 expected. If the actual life is shorter the reserve
2 should be higher, not lower than 33 percent.

- 3
- 4 • If the accrual rate were to increase above 3.7
5 percent, the reserve level would go up. This would
6 not be appropriate absent a reduction in the actual life
7 of the plant, since it would indicate that the age of
8 plant is higher than 33 percent of its expected life
9 when, in fact, it is not, without a reduction to the
10 actual service life of plant.

11

12 In summary, a declining reserve percent would be a reason for concern
13 absent indications that it is merely the result of growth in plant. On the
14 other hand, a rising reserve percent is generally a sign that accrual rates
15 anticipate increasing retirement levels. Indeed, absent indications that the
16 expected life of plant is decreasing, it might be a sign that accrual rates
17 are too high.

18

19 Exhibit MJM-4 to this testimony charts reserve levels and other plant rates
20 since 1944 for all local exchange carriers ("LEC's") providing full financial
21 reports to the FCC. As shown on Page 1 of Exhibit MJM-4, reserve
22 percents decreased steadily following World War II due to industry growth.
23 These declines continued through the 1970's due in part to accrual rates

1 which were too low.¹⁰ As shown on Page 1 of Exhibit MJM-4, however, the
2 FCC's change to forward-looking depreciation practices in the 1980s
3 resulted in a dramatic rise in reserve levels after 1980. The composite
4 reserve level rose from 18.7 percent in 1980 to an historic high of 47.1
5 percent in 1996. This track record indicates that the depreciation process
6 is resulting in adequate depreciation accruals, and that the FCC's
7 projection life estimates have been forward-looking and unbiased.

8 **Confirmation of the forward-looking unbiased nature of current FCC**
9 **prescriptions can be gained by comparing the 1996 accrual rate of**
10 **7.2 percent (Exhibit MJM-4, Page 4, Column l) to the 1996 retirement**
11 **rate of 3.7 percent (Exhibit MJM-4, Page 4, Column k). The**
12 **prescription of an accrual rate much higher than the current retirement**
13 **rate indicates an expectation that the retirement rate will be much higher**
14 **in the future. If the FCC were prescribing depreciation rates based only**
15 **upon historical indicators, it would be prescribing depreciation rates in the**
16 **range of 3 to 5 percent.**

17
18 Exhibit MJM-5 confirms that these national LEC trends apply also to
19 BellSouth. The depreciation reserve level for BellSouth has grown from
20 35.3 percent in 1990 to 48.9 percent in 1996. BellSouth depreciation
21 rates have averaged 7.3 percent over the last seven years, while its
22 retirement rates have averaged only 3.6 percent.

1 Q. HAVE YOU COMPARED BELLSOUTH FLORIDA'S HISTORICAL LIVES
2 AND RETIREMENT PATTERNS TO THE FCC'S PRESCRIBED LIVES
3 AND RETIREMENT PATTERNS?
4

5 A. Yes. Exhibit MJM-6 compares BellSouth Florida's historical lives and
6 retirement patterns to the FCC prescribed lives and retirement patterns for
7 the major accounts. Page 1 of Exhibit MJM-6 is replicated below:
8

9 Comparison of Recent Life Indications
10 to FCC-Prescribed Lives

11 BellSouth Florida

12

13 <u>Account Name</u>	14 <u>Recent Life Indications</u>	15 <u>FCC</u>
16 <u>Prescribed</u>		
17 Digital Switch	23.0	16.0
18 Digital Circuit	11.0	10.5
19 Aerial Cable-Metallic	25.0	18.0
20 Underground-Metallic	32.0	23.0
21 Buried Metallic	27.0	18.0

22 The FCC's prescribed projection lives are much shorter than the recent
23 historical indications. Also, as shown on pages 2 to 6 of Exhibit MJM-6,
the FCC's prescribed retirement patterns are much more accelerated than

1 indicated by recent historical experience. In my opinion, on this basis
2 alone, it is reasonable to conclude that the FCC's prescribed lives
3 and retirement patterns as set forth in the FCC's most recent
4 prescription of BellSouth Florida's depreciation rates are forward-
5 looking.

6

7 **Q. HAVE YOU SUMMARIZED THE FCC'S PRESCRIBED LIVES AND NET**
8 **SALVAGE VALUES FOR BELLSOUTH FLORIDA?**

9

10 A. Yes. The FCC's most recently prescribed lives for BellSouth Florida are
11 summarized in on Exhibit MJM-7, which compares the FCC's range of
12 lives and future net salvage values in Columns (a) and (b) to its most
13 recent state-specific parameters for Florida in Column (c).

14

15 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

16

17 A. Yes, it does at this time.

18

19

20

21

22

¹ FCC, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, first Report and Order, FCC 96-325, released August 8, 1996 ("August 8 Order"), Appendix B ("Rules"). While the court has ruled that state commissions are not required to follow the FCC's rules, the detailed guidelines described by the FCC for the calculation of depreciation of unbundled network elements continue to represent sound economic costing principles and should be applied in the context of this proceeding.

² FCC Docket No. 95-1635.

³ Rules, 47 CFR § 51.505 (a).

⁴ Rules, 47 CFR § 51.505 (b) (3).

⁵ The economic life of an asset is its total revenue producing life. Public Utility Depreciation Practices, National Association of Regulatory Utility Commissioners, August 1996, p. 318.

⁶ Report on Telephone Industry Depreciation, Tax and Capital/Expense Policy, Accounting and Audits Division, Federal Communications Commission, April 15, 1987 ("AAD Report"), p. 8.

⁷ FCC, Simplification of the Depreciation Prescription Process, CC Docket No. 92-296 ("Prescription Simplification" proceeding) Third Report and Order, FCC 95-181, released May 4, 1995, p. 6.

⁸ AAD Report, pp. 5-6.

⁹ Reserves will stabilize at 33 percent assuming a triangular (straight-line) mortality curve. See Notes for Engineering Economics Courses, American Telephone and Telegraph Company, Engineering Department - 1966, p. 121.

¹⁰ AAD Report, p. 7.

MICHAEL J. MAJOROS, JR.

APPEARANCES BEFORE REGULATORY AGENCIES
RELATED TO DEPRECIATION

<u>STATE</u>	<u>DOCKET NO.</u>	<u>UTILITY</u>
New Jersey	815-458	New Jersey Bell Telephone Co.
District of Columbia	785	Potomac Electric Power Co.
Maryland	7689	Washington Gas Light Co.
District of Columbia	813	Potomac Electric Power Co.
Pennsylvania	R-842621	Western Pennsylvania Water Co.
Maryland	7743	Potomac Edison Electric Co.
Maryland	7851	Chesapeake & Potomac Tel. Co.
California	I-85-03-78	Pacific Bell Telephone Co.
Pennsylvania	R-850174	Philadelphia Suburban Water Co.
Pennsylvania	R-850178	Pennsylvania Gas & Water Co.
Pennsylvania	R-850229	General Tel. of Pennsylvania
Maryland	7899	Delmarva Power & Light Co.
Pennsylvania	R-850268	York Water Co.
Pennsylvania	R-860350	Dauphin Water Co.
Idaho	U-1022-59	General Tel. of the Northwest
Maryland	7973	Baltimore Gas & Electric Co.
Pennsylvania	C-860923	Bell Telephone of Pennsylvania
Iowa	DPU-86-2	Northwestern Bell Telephone Co.
District of Columbia	842	Washington Gas Light Co.
Iowa	RPU-87-3	Iowa Public Service Company
Florida	880069-TL	Southern Bell Telephone

Docket No.: 960833-TP, 960846-TP
Majoros Exhibit MJM-1
Attachment 1

<u>STATE</u>	<u>DOCKET NO.</u>	<u>UTILITY</u>
District of Columbia	869	Potomac Electric Power Company
Iowa	RPU-88-6	Northwestern Bell Telephone Co.
New Jersey	1487-88	Morris County Transfer Station
Florida	890256-TL	Southern Bell Telephone
New Jersey	ER89110912	Jersey Central Power & Light Co.
New Jersey	WR900050497J	Elizabethtown Water Company
South Carolina	92-227-C	Southern Bell Telephone Company
Maryland	8485	Baltimore Gas & Electric Company
Pennsylvania	P-900465	United Tel. Co. of Pennsylvania
West Virginia	90-564-T-D	C&P Telephone Co.
New Jersey	90080792J	Hackensack Water Co.
New Jersey	WR90080884J	Middlesex Water Company
Pennsylvania	R-911892	Philadelphia Suburban Water
Kansas	176,716-U	Kansas Power & Light Co.
Indiana	39017	Indiana Bell Telephone Co.
Nevada	91-5054	Central Telephone Co. - Nevada
New Jersey	EE91081428	Public Service Elec. & Gas Co.
Maryland	8462	C&P Telephone Co.
West Virginia	91-1037-E-D	Appalachian Power Company
Maryland	8464	Potomac Electric Power Company
South Carolina	92-227-C	Southern Bell - South Carolina
Maryland	8485	Baltimore Gas & Electric Co.
Georgia	4451-U	Atlanta Gas Light Company
New Jersey	GR93040114	New Jersey Natural Gas Company
Iowa	RPU-93-9	U.S. West - Iowa
Iowa	RPU-94-3	Midwest Gas
Connecticut	94-10-03	Southern New England Telephone
Pennsylvania	R-00953300	Citizens Utilities Company
Arizona	E-1032-95-417 et. al.	Citizens Utilities Company
New Hampshire	DE 96-52	New England Telephone

<u>STATE</u>	<u>DOCKET NO.</u>	<u>UTILITY</u>
Iowa	DPU-96-1	U S West - Iowa
Ohio	96-922-TP-UNC	Ameritech - Ohio
Michigan	U-11280	Ameritech - Michigan
Michigan	U-11281	GTE North
Wyoming	7000-TR-96-323	U S West - Wyoming
Iowa	RPU-96-9	U S West - Iowa
Illinois	96-0486/0569	Ameritech - Illinois
Indiana	40611	Ameritech - Indiana
Utah	97-049-08	US West - Utah

MICHAEL J. MAJOROS, JR.

PARTICIPATION AS NEGOTIATOR IN FCC DEPRECIATION
RATE REPRESRIPTION CONFERENCES

<u>COMPANY</u>	<u>YEARS</u>	<u>CLIENT</u>
Diamond State Telephone Co.	1985 + 1988	Delaware Public Service Commission
Bell Telephone of Pennsylvania	1986 + 1989	PA Consumer Advocate
Chesapeake & Potomac Telephone Co. - Md.	1986	Maryland People's Counsel
Southwestern Bell Telephone - Kansas	1986	Kansas Corp. Commission
Southern Bell - Florida	1986	Florida Consumer Advocate
Chesapeake & Potomac Telephone Co. - W. Va.	1987 + 1990	West VA Consumer Advocate
New Jersey Bell Telephone Co.	1985 + 1988	New Jersey Rate Counsel
Southern Bell - South Carolina	1986 + 1989 + 1992	S. Carolina Consumer Advocate
GTE-North - Pennsylvania	1989	PA Consumer Advocate

MICHAEL J. MAJOROS, JR.

**PARTICIPATION IN PROCEEDINGS IN WHICH DEPRECIATION
WAS SETTLED BEFORE TESTIMONY WAS SUBMITTED**

<u>STATE</u>	<u>DOCKET NO.</u>	<u>UTILITY</u>
Maryland	7878	Potomac Edison
Nevada	88-728	Southwest Gas
New Jersey	WR90090950J	New Jersey American Water
New Jersey	WR900050497J	Elizabethtown Water
New Jersey	WR91091483	Garden State Water
West Virginia	91-1037-E	Appalachian Power Co.
Nevada	92-7002	Central Telephone - Nevada
Pennsylvania	R-00932873	Blue Mountain Water
West Virginia	93-1165-E-D	Potomac Edison
West Virginia	94-0013-E-D	Monongahela Power
New Jersey	WR94030059	New Jersey American Water
New Jersey	WR95080346	Elizabethtown Water
New Jersey	WR95050219	Toms River Water Co.
New Jersey	WR95070303	Hackensack Water Co. New
Jersey		

Michael J. Majoros

Attachment 3

Experience

Snavely King Majoros O'Connor & Lee, Inc. Washington, DC

*Vice President and Treasurer (1988 to Present)
Senior Consultant (1981-1987)*

Mr. Majoros provides consultation specializing in accounting, financial, and management issues. He has testified as an expert witness or negotiated on behalf of clients in more than fifty regulatory proceedings involving telephone, electric, gas, water and sewerage companies. Mr. Majoros has appeared before Federal and state agencies. His testimony has encompassed a wide variety of complex issues including taxation, divestiture accounting, revenue requirements, rate base, nuclear decommissioning and capital recovery.

Mr. Majoros has been responsible for developing the firm's consulting services on depreciation and other capital recovery procedures into a major area of practice. He has also developed the firm's capabilities in the management audit area and most recently he established the firm's office in San Juan, Puerto Rico. Mr. Majoros established and manages the firm's Management Information Systems division.

Van Scoyoc & Wiskup, Inc., Washington, DC

Consultant (1978-1981)

Mr. Majoros performed various management and regulatory consulting projects in the public utility field, including preparation of electric system load projections for a group of municipally and cooperatively owned electric systems; preparation of a system of accounts and reporting of gas and oil pipelines to be used by a state regulatory commission; accounting system analysis and design for rate proceedings involving electric, gas, and telephone utilities. Mr. Majoros also assisted in an antitrust proceeding involving a major electric utility. He submitted expert testimony in FERC Docket No. RP79-12 (El Paso Natural Gas Company). In addition, he co-authored a study entitled Analysis of Staff Study on Comprehensive Tax Normalization which was submitted to FERC in Docket No. RM80-42.

Handling Equipment Sales Company, Inc., Landover, MD

Treasurer (1976-1978)

Mr. Majoros' responsibilities included financial management, general accounting and reporting, and income taxes.

Ernst & Ernst (now Ernst & Young), Baltimore, MD

Auditor (1973-1976)

Mr. Majoros was a member of the audit staff where his responsibilities included auditing, supervision, business systems analysis, report preparation, and corporate income taxes.

Central Savings Bank, Baltimore, MD

(1969-1971)

Mr. Majoros was an Assistant Branch Manager at the time he left the bank to attend college as a full-time student. During his tenure at the bank, Mr. Majoros gained experience in each department of the bank. In addition, he attended night school at the University of Baltimore.

Education

University of Baltimore, B.S. in Accounting

Professional Affiliations

American Institute of Certified Public Accountants

Maryland Association of C.P.A.s

Society of Depreciation Professionals

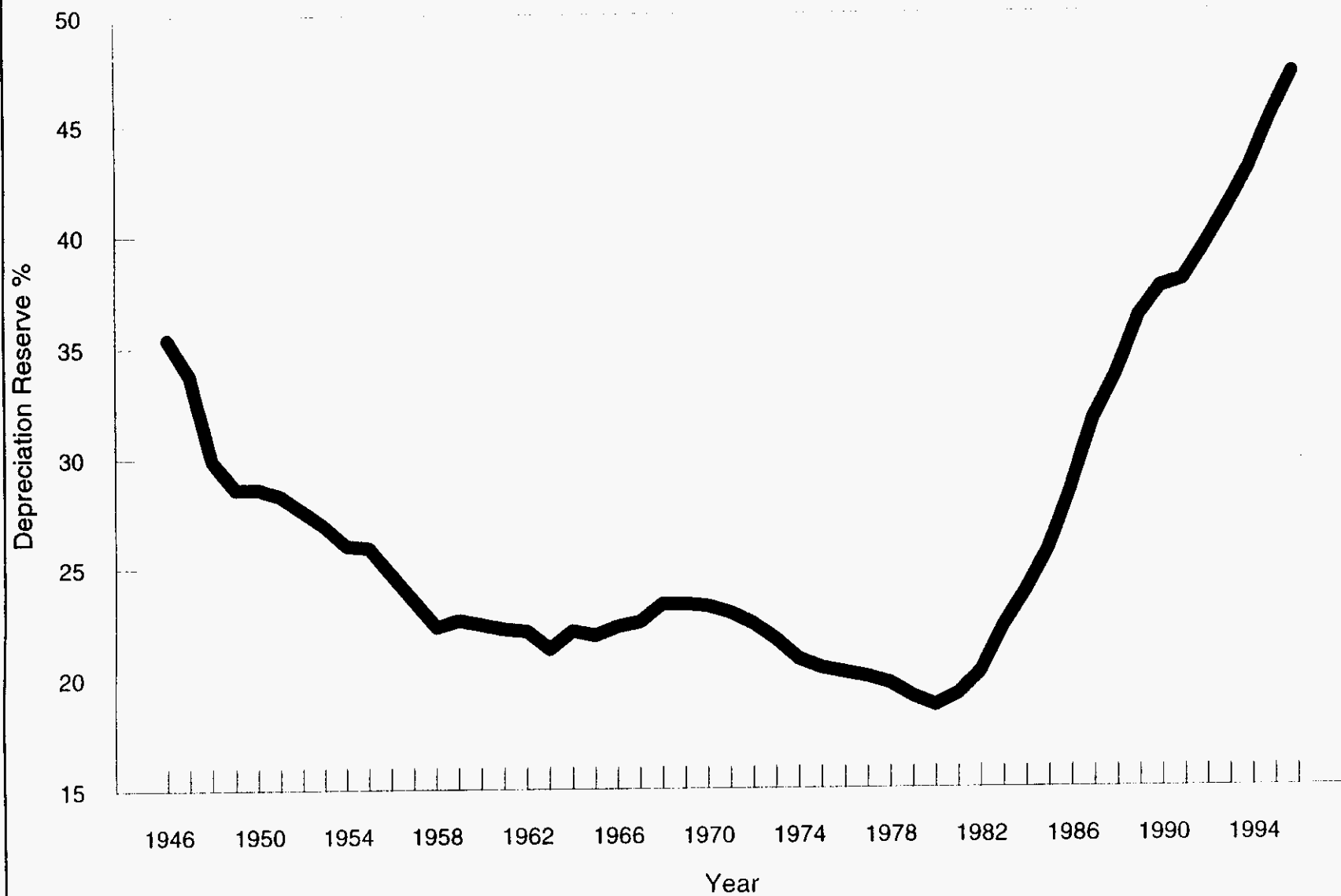
Publications

"Telephone Company Deferred Taxes and Investment Tax Credits - A Capital Loss for Ratepayers," Public Utility Fortnightly, September 27, 1984.

"The Use of Customer Discount Rates in Revenue Requirement Comparisons," Proceedings of the 25th Annual Iowa State Regulatory Conference, 1986

Depreciation Reserve Percent

All Lecs



All LEC's Plant Related Rates
(Dollars in Millions)

	Telecommunications Plant in Service				Add (e)	Ret (f)	Deprec (g)	EOY Reserve (h)	AVG Reserve (i)	Add Rate (j) = e/a	Retire Rate (k) = f/a	Deprec Rate (l) = g/c	Reserve Percent (m) = h/b
	BOY (a)	EOY (b)	Average (c)=(a+b)/2	Increase (d) = b-a									
1946		6,500	3,250	6,500			2,300						35.4
1947	6,500	7,400	6,950	900			2,500	2,400					33.8
1948	7,400	8,700	8,050	1,300			2,600	2,550					29.9
1949	8,700	9,800	9,250	1,100			2,800	2,700					28.6
1950	9,800	10,500	10,150	700			3,000	2,900					28.6
1951	10,500	11,300	10,900	800			3,200	3,100					28.3
1952	11,300	12,300	11,800	1,000			3,400	3,300					27.6
1953	12,300	13,400	12,850	1,100			3,600	3,500					26.9
1954	13,400	14,600	14,000	1,200			3,800	3,700					26.0
1955	14,600	15,800	15,200	1,200			4,100	3,950					25.9
1956	15,800	17,400	16,600	1,600			4,300	4,200					24.7
1957	17,400	19,600	18,500	2,200			4,600	4,450					23.5
1958	19,600	22,000	20,800	2,400			4,900	4,750					22.3
1959	22,000	23,000	22,500	1,000			5,200	5,050					22.6
1960	23,000	25,000	24,000	2,000	2,700	700	5,600	5,400	11.7	3.0	4.6		22.4
1961	25,000	27,000	26,000	2,000	2,800	800	6,000	5,800	11.2	3.2	4.6		22.2
1962	27,000	29,000	28,000	2,000	2,900	900	6,400	6,200	10.7	3.3	4.6		22.1
1963	29,000	32,000	30,500	3,000	4,000	1,000	6,800	6,600	13.8	3.4	4.6		21.3
1964	32,000	34,000	33,000	2,000	2,900	900	7,500	7,150	9.1	2.8	4.8		22.1
1965	34,000	37,000	35,500	3,000	4,100	1,100	8,100	7,800	12.1	3.2	4.8		21.9
1966	37,000	40,000	38,500	3,000	4,100	1,100	8,900	8,500	11.1	3.0	4.9		22.3

All LEC's Plant Related Rates
(Dollars in Millions)

BOY	Telecommunications Plant in Service				Add (e)	Ret (f)	Deprec (g)	EOY Reserve (h)	AVG Reserve (i)	Add Rate (j) = e/a	Retire Rate (k) = f/a	Deprec Rate (l) = g/c	Reserve Percent (m) = h/b
	EOY (b)	Average (c)=(a+b)/2	Increase (d) = b-a										
1967	40,000	44,000	42,000	4,000	5,100	1,100	2,100	9,900	9,400	12.8	2.8	5.0	22.5
1968	43,249	47,123	45,186	3,874	5,104	1,230	2,304	10,979	10,440	11.8	2.8	5.1	23.3
1969	47,175	51,724	49,450	4,549	6,022	1,473	2,507	12,072	11,526	12.8	3.1	5.1	23.3
1970	51,723	56,951	54,337	5,228	6,880	1,651	2,751	13,213	12,643	13.3	3.2	5.1	23.2
1971	56,972	63,090	60,031	6,118	8,052	1,933	3,016	14,447	13,830	14.1	3.4	5.0	22.9
1972	63,068	69,870	66,469	6,802	9,044	2,242	3,330	15,643	15,045	14.3	3.6	5.0	22.4
1973	69,951	77,442	73,697	7,491	10,085	2,595	3,659	16,769	16,206	14.4	3.7	5.0	21.7
1974	77,107	84,888	80,998	7,781	11,024	3,243	4,047	17,685	17,227	14.3	4.2	5.0	20.8
1975	84,799	92,284	88,542	7,485	10,881	3,396	4,486	18,809	18,247	12.8	4.0	5.1	20.4
1976	92,591	99,879	96,235	7,288	11,139	3,856	4,934	20,163	19,486	12.0	4.2	5.1	20.2
1977	101,237	109,496	105,367	8,259	12,438	4,136	5,630	21,903	21,033	12.3	4.1	5.3	20.0
1978	109,502	119,336	114,419	9,834	14,549	4,681	6,199	23,474	22,689	13.3	4.3	5.4	19.7
1979	118,612	129,972	124,292	11,360	16,843	5,452	6,820	24,881	24,178	14.2	4.6	5.5	19.1
1980	129,767	142,096	135,932	12,329	18,694	6,378	7,804	26,512	25,697	14.4	4.9	5.7	18.7
1981	142,121	155,845	148,983	13,724	19,482	5,749	8,664	29,932	28,222	13.7	4.0	5.8	19.2
1982	155,907	168,075	161,991	12,168	18,466	6,409	9,757	33,957	31,945	11.8	4.1	6.0	20.2
1983	169,162	178,482	173,822	9,320	16,076	6,664	11,340	39,571	36,764	9.5	3.9	6.5	22.2
1984	152,315	159,798	156,057	7,483	14,994	4,994	10,048	37,996	38,784	9.8	3.3	6.4	23.8
1985	174,218	186,294	180,256	12,076	18,972	6,667	11,469	43,837	40,917	10.9	3.8	6.9	25.7
1986	186,972	198,758	192,865	11,786	18,907	6,954	13,142	51,543	47,690	10.1	3.7	7.5	28.4
1987	199,063	209,687	204,375	10,624	18,535	7,886	15,263	61,471	56,507	9.3	4.0	8.1	31.6

All LEC's Plant Related Rates
(Dollars in Millions)

	Telecommunications Plant in Service				Add (e)	Ret (f)	Deprec (g)	EOY Reserve (h)	AVG Reserve (i)	Add Rate (j) = e/a	Retire Rate (k) = f/a	Deprec Rate (l) = g/c	Reserve Percent (m) = h/b
	BOY (a)	EOY (b)	Average (c)=(a+b)/2	Increase (d) = b-a									
1988	210,720	220,395	215,558	9,675	17,947	8,949	16,627	74,123	67,797	8.5	4.2	7.7	33.6
1989	220,126	229,326	224,726	9,200	16,868	8,145	16,839	83,115	78,619	7.7	3.7	7.5	36.2
1990	229,103	235,247	232,175	6,144	18,473	12,380	16,955	88,146	85,631	8.1	5.4	7.3	37.5
1991	236,093	241,620	238,857	5,527	18,322	12,896	16,607	91,427	89,787	7.8	5.5	7.0	37.8
1992	242,599	249,508	246,054	6,909	18,877	12,138	17,036	98,053	94,740	7.8	5.0	6.9	39.3
1993	250,570	258,782	254,676	8,212	18,864	11,217	17,676	106,079	102,066	7.5	4.5	6.9	41.0
1994	259,216	267,443	263,330	8,227	18,781	10,990	18,656	114,598	110,339	7.2	4.2	7.1	42.8
1995	268,555	278,946	273,751	10,391	19,482	9,411	19,393	125,789	120,194	7.3	3.5	7.1	45.1
1996	278,974	291,569	285,272	12,595	22,401	10,271	20,527	137,278	131,534	8.0	3.7	7.2	47.1
Avg.	'60-'71									12.0	3.1	4.9	
	'72-'83									13.1	4.1	5.5	
	'84-'96									8.5	4.2	7.2	

Source: 1946 - 1967 Report on Telephone Industry Depreciation, Tax and Capital/Expense Policy, Accounting and Audits Division, FCC, April 15, 1987, pp.6, 9
 1968 - 1983 FCC Statistics of Common Carriers, Tables 12 and 16
 1984 - 1987 FCC Statistics of Common Carriers, Tables 10 and 14
 1988 - 1996 FCC Statistics of Common Carriers, Tables 2.7 and 2.9

Note 1: 1946 - 1983 Includes AT&T

Note 2: From FCC Statistics of Common Carriers, Table 14

Col l = 1985 Col g/165,076
 1986 Col g/175,926
 1987 Col g/187,920
 Col m = 1985 Col h/170,355
 1986 Col h/181,496
 1987 Col h/194,343

BellSouth Telephone Plant Related Rates

(Dollars in Millions)

	Telecommunications Plant in Service				<u>Add</u> (e)	<u>Ret</u> (f)	<u>Deprec</u> (g)	<u>EOY</u> <u>Reserve</u> (h)	<u>AVG.</u> <u>Reserve</u> (i)	<u>Add</u> <u>Rate</u> (j) = e/a	<u>Retire</u> <u>Rate</u> (k) = f/a	<u>Deprec</u> <u>Rate</u> (l) = g/c	<u>Reserve</u> <u>Percent</u> (m) = h/b
	<u>BOY</u> (a)	<u>EOY</u> (b)	<u>Average</u> (c)=(a+b)/2	<u>Increase</u> (d) = b-a									
1990	32,462	34,216	33,339	1,754	3,026	1,272	2,506	12,063	11,378	9.3	3.9	7.5	35.3
1991	34,216	35,829	35,023	1,613	2,994	1,382	2,598	13,384	12,724	8.8	4.0	7.4	37.4
1992	36,034	37,644	36,839	1,610	2,768	1,159	2,615	15,096	14,240	7.7	3.2	7.1	40.1
1993	37,644	39,445	38,545	1,801	3,142	1,341	2,811	16,669	15,883	8.3	3.6	7.3	42.3
1994	39,445	41,095	40,270	1,650	3,143	1,493	2,919	18,203	17,436	8.0	3.8	7.2	44.3
1995	41,095	42,934	42,015	1,839	3,177	1,349	3,044	19,944	19,074	7.7	3.3	7.2	46.5
1996	42,934	45,318	44,126	2,384	3,731	1,347	3,174	22,176	21,060	8.7	3.1	7.2	48.9
Avg.										8.4	3.6	7.3	

Source: Annual Report Form M, Tables B-1 and B-5, 1990-1991
ARMIS 43-02 Reports, Tables B-1 and B-5, 1992-1996

Note: Excludes Customer Premise Wiring

Comparison of Prescribed Life and
Most Recent Life Indications

	FCC Prescribed <u>Life 1/</u>	Recent Life <u>Indication 2/</u>
1 Digital Switch	16.0	23.0
2 Digital Circuit	10.5	11.0
3 Aerial Cable - Metallic	18.0	25.0
4 Underground Cable - Metallic	23.0	32.0
5 Buried Cable - Metallic	18.0	27.00

1/ FCC Parameter Report, July 20, 1995

2/ Average of the most recent 3-year bands from BellSouth - Florida
1996 Depreciation Study

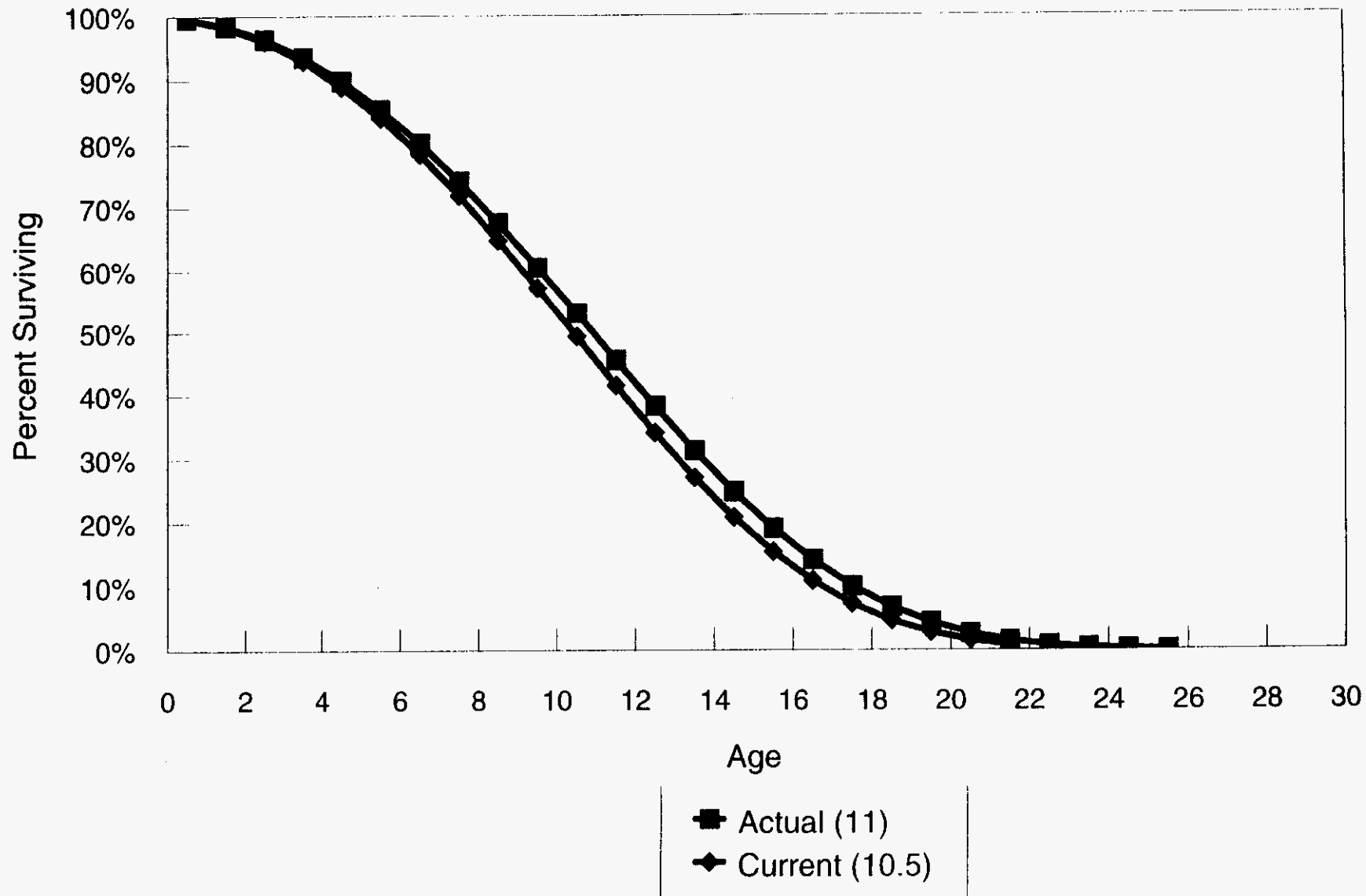
BellSouth - Florida

Comparison of Digital Switching Survivor Curves



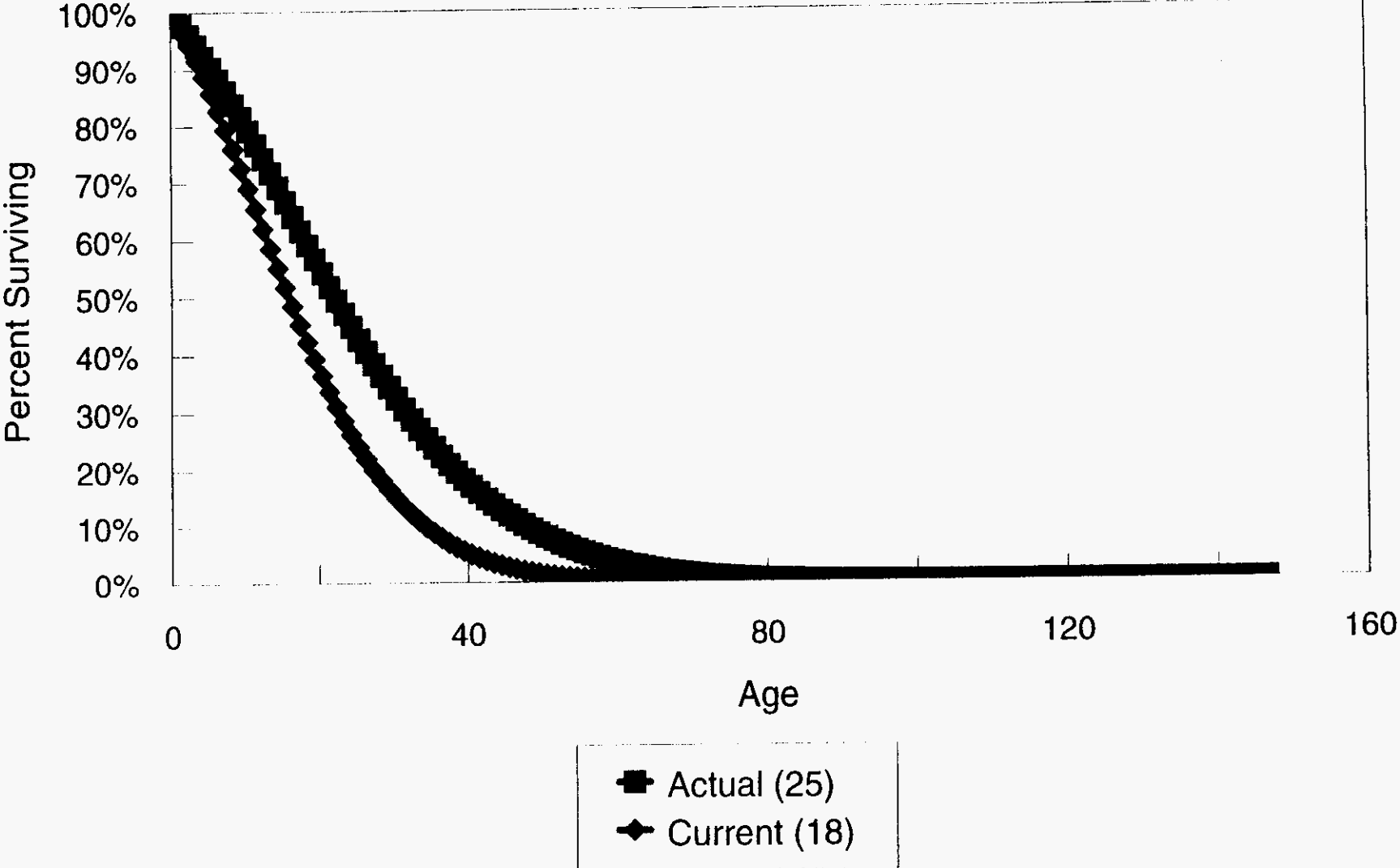
BellSouth - Florida

Comparison of Digital Circuit Survivor Curves



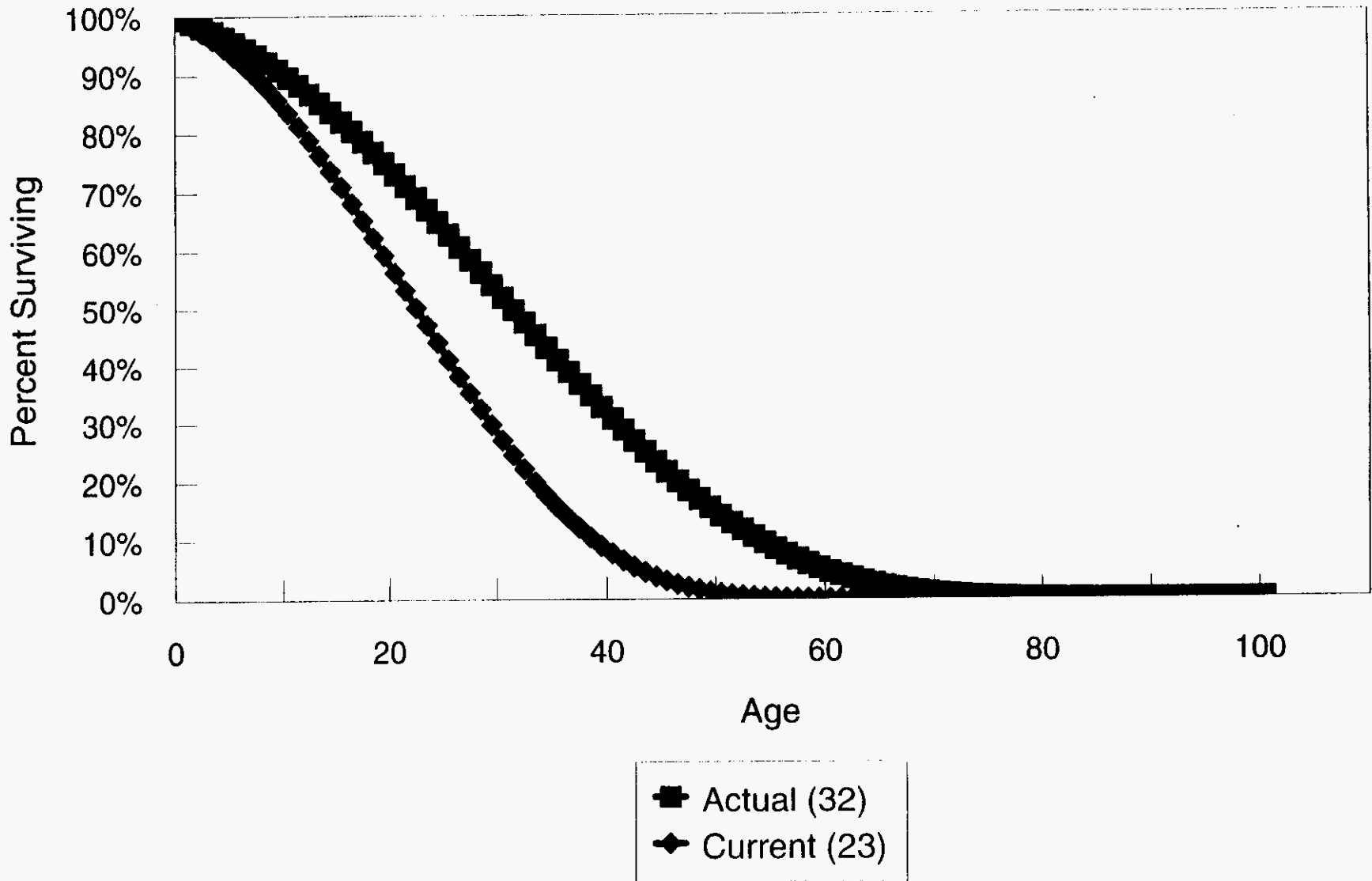
BellSouth - Florida

Comparison of Aerial Cable - Metallic Survivor Curves



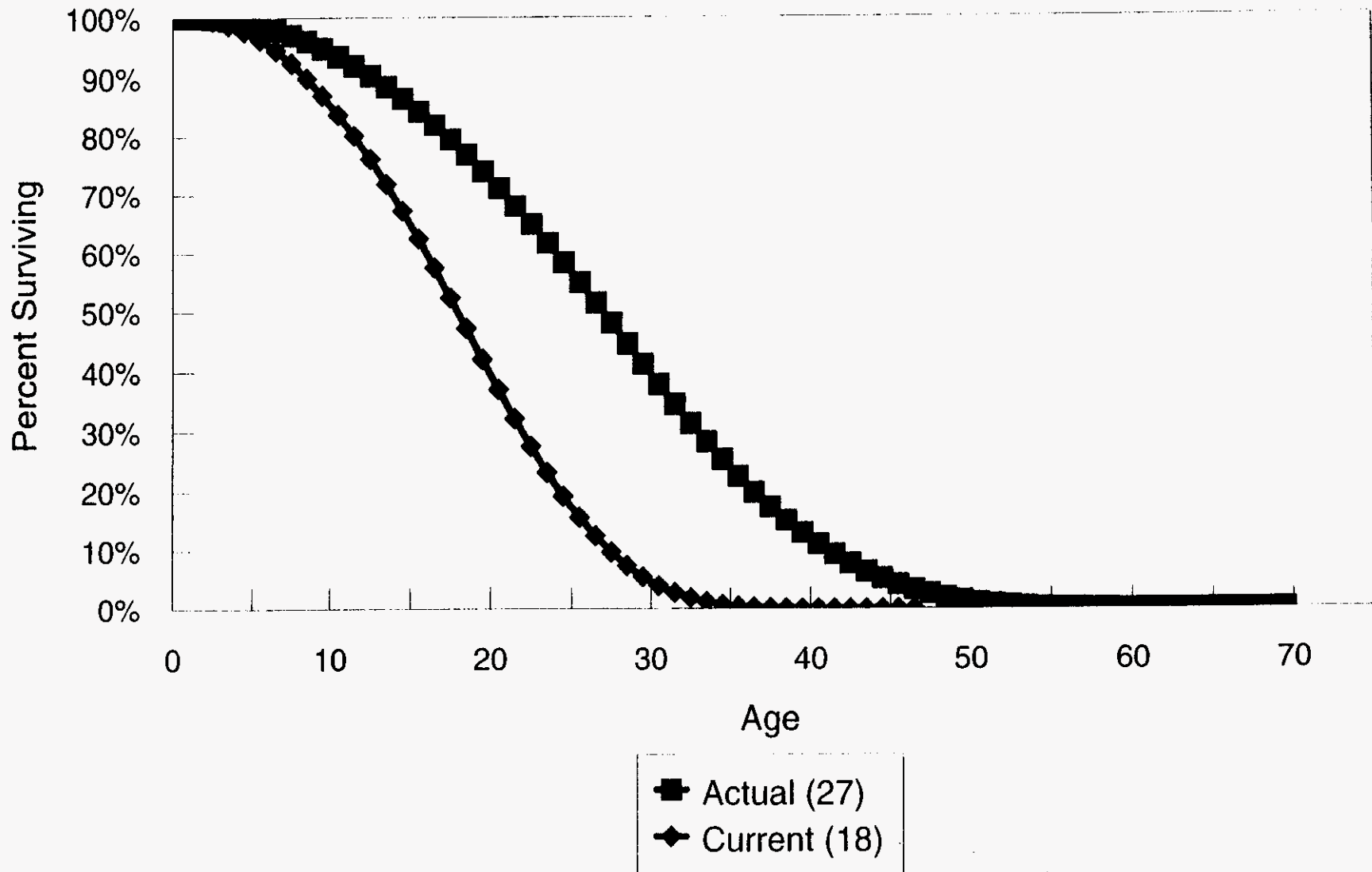
BellSouth - Florida

Comparison of Underground Cable - Metallic Survivor Curves



BellSouth - Florida

Comparison of Buried Cable - Metallic Survivor Curves



Projection Life Comparison

	<u>Account Number</u>	<u>Account Name</u>	<u>FCC Range</u>		<u>BS FL FCC</u>	<u>BS FL PSC</u>
			<u>Low (a)</u>	<u>High (b)</u>	<u>(c)</u>	<u>(d)</u>
	2112	Motor Vehicles	7.5	9.5	7.5	
2	2115	Garage Work Eqpt	12.0	18.0	12.0	
3	2116	Other Work Eqpt	12.0	18.0	15.0	
4	2121	Buildings	N/A	N/A	48.0	
5	2122	Furniture	15.0	20.0	11.0	
6	2123.1	Ofc. Support Eqpt	10.0	15.0	10.5	
7	2123.2	Co. Comm. Eqpt	7.0	10.0	7.0	
8	2124	Gen. Purpose Computers	6.0	8.0	5.5	
9	2212	Digital Switching	16.0	18.0	16.0	
10	2220	Operator Systems	8.0	12.0	10.0	
11	2232	Digital Circuit	11.0	13.0	10.5	
12	2351	Public Telephones	7.0	10.0	7.0	
13	2411	Poles	25.0	35.0	35.0	
14	2421	Aerial Cable - Met	20.0	26.0	18.0	
15	2421	Aerial Cable - Fiber	25.0	30.0	25.0	
16	2422	Underground Cable - Met	25.0	30.0	23.0	
17	2422	Underground Cable - Fiber	25.0	30.0	25.0	
18	2423	Buried Cable - Met	20.0	26.0	18.0	
19	2423	Buried Cable - Fiber	25.0	30.0	25.0	
20	2426	Intrabldg Cable - Met	20.0	25.0	20.0	
21	2426	Intrabldg Cable - Fiber	25.0	30.0	20.0	
22	2441	Conduit Systems	50.0	60.0	55.0	

Source: Col a, b = FCC Docket No. 92-296 Orders released 6/28/94 and 5/4/95
Col c = FCC Parameter Report, July 20, 1995
Col d = The Florida Public Service Commission did not prescribe projection lives.

Future Net Salvage Comparison

	Account Number	Account Name	FCC Range		BS FL	BS FL
			<u>Low</u> (a)	<u>High</u> (b)	<u>FCC</u> (c)	<u>PSC</u> (d)
1	2112	Motor Vehicles	10.0	20.0	10.0	14.0
2	2115	Garage Work Eqpt	0.0	10.0	0.0	N/A
3	2116	Other Work Eqpt	0.0	10.0	1.0	N/A
4	2121	Buildings	N/A	N/A	4.0	6.0
5	2122	Furniture	0.0	10.0	14.0	N/A
6	2123.1	Ofc. Support Eqpt	0.0	10.0	10.0	N/A
7	2123.2	Co. Comm. Eqpt	-5.0	10.0	10.0	N/A
8	2124	Gen. Purpose Computers	0.0	5.0	0.0	N/A
9	2212	Digital Switching	0.0	5.0	0.0	0.0
10	2220	Operator Systems	0.0	5.0	0.0	0.0
11	2232	Digital Circuit	0.0	5.0	0.0	2.0
12	2351	Public Telephones	0.0	10.0	10.0	20.0
13	2411	Poles	-75.0	-50.0	-75.0	-51.0
14	2421	Aerial Cable - Met	-35.0	-10.0	-11.0	-9.0
15	2421	Aerial Cable - Fiber	-25.0	-10.0	-11.0	0.0
16	2422	Underground Cable - Met	-30.0	-5.0	-7.0	0.0
17	2422	Underground Cable - Fiber	-20.0	-5.0	-6.0	2.0
18	2423	Buried Cable - Met	-10.0	0.0	-8.0	-4.0
19	2423	Buried Cable - Fiber	-10.0	0.0	0.0	3.0
20	2426	Intrabldg Cable - Met	-30.0	-5.0	-12.0	-9.0
21	2426	Intrabldg Cable - Fiber	-15.0	0.0	-12.0	-5.0
22	2441	Conduit Systems	-10.0	0.0	-7.0	-5.0

Source: Col a, b = FCC Docket No. 92-296 Orders released 6/28/94 and 5/4/95
Col c = FCC Parameter Report, July 20, 1995
Col d = FPSC Order No. PSC-93-0462-FOF-TL, Attachment A