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FEDERAL COMMUNICATIONS COMMISSION RELEASES STUDY ON TELEPHONE TRENDS

Washington D.C. – Today, the Federal Communications Commission (FCC) released its *Trends in Telephone Service* report, which summarizes in one convenient reference source information published in various reports over the course of the past year. The report provides answers to some of the most frequently asked questions about the telephone industry coming from consumers, members of Congress, other government agencies, telecommunications carriers, and members of the business and academic communities.

The report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, S.W., Washington, D.C. 20554. Copies may be purchased by contacting Best Copy and Printing, Inc., Portals II, 445 12th Street S.W., Room CY-B402, Washington, D.C. 20554, telephone 800-378-3160, facsimile 202-488-5563, or via e-mail at fcc@bcpiweb.com. This report can be downloaded from the **FCC-State Link** Internet site at: www.fcc.gov/wcb/iatd/trends.html.

- FCC -

For additional information, contact Katie Rangos of the Wireline Competition Bureau's Industry Analysis and Technology Division, (202) 418-0940, or for users of TTY equipment, call (202) 418-0484.

Trends in Telephone Service

Industry Analysis and Technology Division
Wireline Competition Bureau

Tables Compiled as of
April 2005

This report is available for reference in the FCC's Information Center at 445 12th Street, S.W., Courtyard Level. Copies may be purchased by calling Best Copy and Printing, Inc., Portals II, 445 12th Street S.W., Room CY-B402, Washington DC 20554 at 800-378-3160, facimile 202-488-5563, or via e-mail fcc@bcpiweb.com. The report can also be downloaded from the **FCC-State Link** Internet site at: www.fcc.gov/wcb/trends.html.

Table of Contents

1 Introduction

Trends in Telephone Service is published by the Industry Analysis and Technology Division of the Federal Communication Commission's Wireline Competition Bureau.[1] This report is designed to provide answers to some of the most frequently asked questions about the telephone industry -- questions asked by consumers, members of Congress, other government agencies, telecommunications carriers, and members of the business and academic communities. To this end, the report contains summary information about the size, growth, and development of the telephone industry, including data on market shares, minutes of calling, number of lines, and telephone subscribership. The report also provides information about access charges, advanced telecommunications, consumer expenditures for service, infrastructure, international telephone traffic, local telephone competition, telephone rates and price changes, toll service providers, and universal service support.

Trends in Telephone Service summarizes a variety of information contained in other reports that are published periodically by the Industry Analysis and Technology Division.[2] In most cases, these other reports provide more detailed information than that provided here. These reports can be accessed from our Internet site, **FCC-State Link**, at www.fcc.gov/wcb/stats.html. In addition, to facilitate further information gathering by consumers and others, we have listed additional sources of information in Appendix B, and we have provided information on co ntacting the authors of this report in Appendix C.

Access Charges

Long distance companies rely on the loops, switches, and transport facilities of local telephone companies for access to their customers. As a result, local telephone companies recover a portion of their costs from long distance companies accessing their networks. Both the manner in which these access charges have been assessed and the proportion of the costs they have recovered have varied considerably over time.

In the early 1980s, AT&T provided about three-quarters of the nation's local telephone service and almost all interstate long distance service. Because revenue sharing was largely an internal process for AT&T, it was able to charge prices above true economic cost for long distance calls and share the revenues with local telephone companies. These transfers, while reducing the pressures on the local companies to raise monthly rates, contributed to inefficiently high long distance rates. The high rates were responsible for suppressing demand for long distance calls and inducing large corporations to bypass the public switched network. Moreover, while such revenue sharing arrangements were sustainable in an industry where one firm monopolized both long distance and local service, they were not compatible with a competitive long distance industry.

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[1] *Trends in Telephone Service* was last published in May 2004.

[2] See Appendix A for a list of these publications.

In mid-1984 the FCC, in cooperation with a Federal-State Joint Board composed of both federal and state regulators, introduced sweeping changes in the way that local telephone companies charged for their services. The historic method of sharing revenues was replaced with a new system of access charges that provided a uniform method for local telephone companies to charge long distance carriers for the origination and termination of interstate traffic on their local networks. In addition, monthly subscriber line charges (SLCs) were introduced to recover a portion of the fixed costs of the local telephone companies' loops directly from end users on a per-line basis. Since local telephone companies were required to reduce their charges to long distance carriers -- dollar for dollar -- as SLCs were introduced, the pricing changes reduced the implicit subsidy from long distance use to local service. The rebalancing of prices between local service and interstate long distance calls during the 1980s had a fundamental impact on the telephone industry as the price of long distance service fell and the volume of long distance calling surged.

In mid-1997, as part of its implementation of the 1996 Telecommunications Act, the FCC introduced further interstate access charge reform. Prior to the 1997 reform, local carriers continued to recover part of their fixed costs in per-minute charges (from long distance carriers) and part from end users (in SLCs.) Presubscribed interexchange carrier charges (PICCs) were created in order to allow local carriers to recover the remaining portion of their fixed loop costs from long distance carriers on a per-line, instead of a per-minute, basis.

As part of access charge reform in May of 2000, the FCC started the process to eliminate PICCs and consolidate them with SLCs. All price-cap local exchange carriers implemented lower access charges paid by long distance carriers. In October of 2001, the FCC modified its interstate access charge rules for rate-of-return incumbent local exchange carriers. These changes for the rate-of-return carriers were designed to align the interstate access rate structure more closely with the manner in which costs are incurred by driving per-minute access charges towards lower, more cost-based levels.

Average monthly SLCs and PICCs are shown in Table 1.1, and average per-minute rates charged to long distance carriers are shown in Table 1.2. Both tables report historical averages for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool. Current per-line charges and per-minute charges are reported for each of the carriers in Tables 1.3 and 1.4, respectively.

Table 1.1

Interstate Per-Line Access Charges

(National Average per Month per Line) [1]

Rates in Effect		Charged to End Users [2] (Subscriber Line Charges)			Charged to Long Distance Carriers [3] (Presubscribed Interexchange Carrier Charges)			
From	To	Residential and Single-Line Business	Non-Primary Residential	Multiline Business and Centrex	Residential and Single-Line Business	Non-Primary Residential	Multiline Business	Centrex
05/26/84	05/31/85	$0.00		$4.99				
06/01/85	09/30/85	1.00		4.99				
10/01/85	05/31/86	1.00		4.97				
06/01/86	12/31/86	2.00		4.97				
01/01/87	06/30/87	2.00		5.12				
07/01/87	12/31/87	2.60		5.12				
01/01/88	11/30/88	2.60		5.01				
12/01/88	03/31/89	3.20		5.01				
04/01/89	12/31/89	3.50		4.94				
01/01/90	06/30/90	3.48		4.84				
07/01/90	12/31/90	3.48		4.83				
01/01/91	06/30/91	3.48		4.77				
07/01/91	11/27/91	3.49		4.74				
11/28/91	06/30/92	3.49		4.76				
07/01/92	06/30/93	3.49		4.68				
07/01/93	06/30/94	3.50		5.37				
07/01/94	06/30/95	3.50		5.45				
07/01/95	06/30/96	3.50		5.50				
07/01/96	06/30/97	3.50		5.53				
07/01/97	12/31/97	3.50		5.68				
01/01/98	06/30/98	3.50	$4.98	6.92	$0.49	$1.50	$2.52	$0.35
07/01/98	12/31/98	3.50	4.99	7.11	0.49	1.38	2.38	0.38
01/01/99	06/30/99	3.50	5.88	7.05	0.49	1.38	2.22	0.32
07/01/99	12/31/99	3.50	5.84	6.94	0.95	1.77	2.78	0.42
01/01/00	06/30/00	3.50	5.81	6.94	0.92	1.70	2.44	0.35
08/11/00	06/30/01 [4]	4.28	5.99	6.88	0.00	0.00	2.30	0.37
07/01/01	12/31/01	4.78	5.93	6.66	0.00	0.00	1.35	0.22
01/01/02	06/30/02	4.92	5.93	6.79	0.00	0.00	1.35	0.22
07/01/02	06/30/03	5.62	5.88	6.45	0.00	0.00	0.48	0.08
07/01/03	06/30/04	5.96	5.94	6.37	0.00	0.00	0.20	0.04
07/01/04	06/30/05	5.92	5.85	6.24	0.00	0.00	0.19	0.05

[1] This table shows average rates (weighted by access lines) for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool.

[2] Prior to 1/01/98, carriers did not charge separate subscriber line charge (SLC) rates for primary and non-primary residential lines. Therefore, the residential and single-line business average SLCs reported prior to 1/01/98 include all residential SLC charges. The average residential and single-line business SLC rate as of 1/01/98 excludes non-primary residential SLCs. Non-primary SLCs are now reported separately, except for the LECs in the NECA pool, which continue to charge a single residential SLC. Under price-cap regulation, as of July 1, 2003, the caps on SLCs for primary residential and single-line business, non-primary residential, and multiline business and Centrex lines equal $6.50, $7.00, and $9.20, respectively. For NECA pool companies, the residential SLC cap is $6.50, while the multiline business and Centrex SLC cap equals $9.20.

[3] On 1/01/98, price-cap carriers began to charge presubscribed interexchange carrier charges (PICCs). The reported PICCs are averages per line including both price-cap and NECA pool lines. While carriers did not charge different rates for Centrex and multiline business SLCs, they did charge different PICC rates for these lines. Therefore, the average multiline business and Centrex PICC rates are reported separately. However, multiline business line counts, used to compute average PICC rates, include Centrex lines for LECs in the NECA pool, which do not charge PICCs or distinguish in access filings between the two line types. On 7/01/00, price-cap carriers stopped charging residential and single-line business PICCs. Therefore, under price-cap regulation, as of July 1, 2000, the caps on PICCs for multiline business lines equal $4.31. Centrex groups of 9 or fewer lines are capped at the multiline business PICC rate of $4.31 per group. Centrex groups with more than 9 lines are capped at $0.48 per line (1/9th the multiline business rate).

[4] Although the charges took effect on July 1, 2000, some companies made adjustments to the tariffs which did not take effect until August 11, 2000.

Source: Access tariff filings.

Table 1.2

Interstate Per-Minute Access Charges

(National Average in Cents per Minute) [1]

Rates in Effect		Interstate Charges for Switched Access Service				
From	To	Carrier Common Line per Originating Access Minute [1]	Carrier Common Line per Terminating Access Minute [1]	Traffic Sensitive per Switched Minute	Non-Traffic Sensitive per Switched Minute [2]	Total Charge per Conversation Minute [3]
05/26/84	01/14/85	5.24 ¢	5.24 ¢	3.10 ¢		17.26 ¢
01/15/85	05/31/85	5.43	5.43	3.10		17.66
06/01/85	09/30/85	4.71	4.71	3.10		16.17
10/01/85	05/31/86	4.33	4.33	3.10		15.38
06/01/86	12/31/86	3.04	4.33	3.10		14.00
01/01/87	06/30/87	1.55	4.33	3.10		12.41
07/01/87	12/31/87	0.69	4.33	3.10		11.49
01/01/88	11/30/88	0.00	4.14	3.10		10.56
12/01/88	02/14/89	0.00	3.39	3.00		9.60
02/15/89	03/31/89	0.00	3.25	3.00		9.46
04/01/89	12/31/89	1.00	1.83	3.00		9.11
01/01/90	06/30/90	1.00	1.53	2.50		7.78
07/01/90	12/31/90	1.00	1.23	2.50		7.48
01/01/91	06/30/91	1.00	1.14	2.40		7.18
07/01/91	06/30/92	0.88	1.06	2.40		6.97
07/01/92	06/30/93	0.79	0.95	2.40		6.76
07/01/93	06/30/94	0.88	1.16	2.20		6.66
07/01/94	06/30/95	0.84	1.08	2.10	0.28 ¢	6.89
07/01/95	06/30/96	0.74	0.89	1.96	0.21	6.16
07/01/96	06/30/97	0.72	0.89	1.95	0.17	6.04
07/01/97	12/31/97	0.64	0.84	1.63	0.14	5.18
01/01/98	06/30/98	0.68	0.23	1.29	0.21	4.04
07/01/98	12/31/98	0.91	0.20	0.99	0.30	3.82
01/01/99	06/30/99	0.82	0.16	0.98	0.32	3.71
07/01/99	12/31/99	0.37	0.10	0.86	0.28	2.82
01/01/00	06/30/00	0.32	0.10	0.86	0.31	2.85
08/11/00	06/31/00 [4]	0.23	0.07	0.52	0.26	1.91
07/01/01	12/31/01	0.15	0.07	0.48	0.24	1.71
01/01/02	06/30/02	0.15	0.07	0.47	0.24	1.69
07/01/02	06/30/03	0.02	0.01	0.48	0.22	1.46
07/01/03	06/30/04	0.00	0.00	0.48	0.22	1.44
07/01/04	06/30/05	0.00	0.00	0.50	0.25	1.53

[1] This table shows average rates (weighted by minutes of use) for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool. The average rates reported here do not include the average revenue per minute from subscriber line charges (SLCs) or primary interexchange carrier charges (PICCs), both of which are reported in Table 1.1. Effective 07/01/03, the carrier common line (CCL) rates for NECA carriers were eliminated.

[2] Non-traffic-sensitive charges include charges assessed on a per-month, per-unit basis. Prior to 07/01/94, these charges were included in the average traffic-sensitive rates.

[3] The total charge per conversation minute consists of charges on the originating end of the call, which are adjusted for dialing and call setup time, plus charges on the terminating end. Originating charges per conversation minute equal the carrier common line charge per originating access minute plus the traffic-sensitive charge per switched minute, both multiplied by 1.07 to account for dialing and call setup time, plus the non-traffic-sensitive charge per switched minute. Terminating charges per conversation minute equal carrier common line charges per terminating access minute plus both traffic-sensitive and non-traffic-sensitive charges per switched minute.

[4] Although the charges took effect on July 1, 2000, some companies made adjustments to the tariffs which did not take effect until August 11, 2000.

Source: Access tariff filings.

Table 1.3

Interstate Per-Line Access Charges by Carrier
(In Dollars per Month per Line) [1]

Company	Rates Effective from 07/01/04 to 06/30/05							2003 Average Monthly Access Lines [2] (Thousands)		
	Subscriber Line Charges			Presubscribed Interexchange Carrier Charges						
	Residential and Single-Line Business	Non-Primary Residential	Multiline Business and Centrex	Residential and Single-Line Business	Non-Primary Residential	Multiline Business	Centrex	Residential and Single-Line Business	Non-Primary Residential	Multiline Business and Centrex
ALLTEL (KY & NE)	$6.00	$6.36	$8.04	$0.00	$0.00	$0.88	$0.62	586	39	180
BellSouth	6.50	6.76	6.76	0.00	0.00	0.00	0.00	13,448	1,843	5,212
CenturyTel [3]	6.40	6.60	7.70	0.00	0.00	1.04	0.41	469	32	128
Cincinnati Bell	5.37	5.37	5.37	0.00	0.00	0.00	0.00	639	66	270
Citizens	6.11	6.48	9.20	0.00	0.00	4.30	0.72	1,640	159	425
Iowa Telecom	6.50	7.00	9.20	0.00	0.00	4.31	0.86	200	13	41
Qwest	6.12	6.36	6.84	0.00	0.00	0.08	0.08	9,236	1,499	3,273
SBC	4.95	4.86	4.89	0.00	0.00	0.00	0.00	26,291	5,066	14,670
Sprint	5.52	5.43	6.57	0.00	0.00	0.00	0.00	4,628	593	1,440
Valor	6.49	6.65	7.99	0.00	0.00	1.51	0.95	373	53	92
Verizon	6.31	6.35	6.71	0.00	0.00	0.40	0.07	29,657	5,430	13,249
Price-cap Carriers	5.86	5.85	6.07	0.00	0.00	0.21	0.05	87,167	14,793	38,980
NECA	6.50	NA	9.20	0.00	NA	0.00	NA	10,082	NA	2,242
Price-cap Carriers and NECA	$5.92	$5.85	$6.24	$0.00	$0.00	$0.19	$0.05	97,249	14,793	41,222

NA - Not Applicable.

[1] This table shows average rates (weighted by access lines) for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool. Rates are composites of all regions and subsidiaries of each local exchange carrier. No information is available for those carriers that are not in the NECA pool, but are subject to rate-of-return regulation.

[2] Access line counts measure lines that companies report as qualified to receive subscriber line charges (SLCs). ISDN-BRI lines, which are charged non-primary SLC and PICC rates, are included in the non-primary residential line counts. ISDN-PRI lines, which are charged rates equal to five times the multiline business SLC and PICC rates, are multiplied by five and added to multiline business counts.

[3] Data reflect only those company study areas subject to price-cap regulation.

Source: Access tariff filings.

Table 1.4

Interstate Per-Minute Access Charges by Carrier
(In Cents per Minute) [1]

Company	Rates Effective from 7/1/04 to 06/30/05					Year 2003 Minutes of Use (Millions)		
	Carrier Common Line per Originating Access Minute [2]	Carrier Common Line per Terminating Access Minute [2]	Switched Traffic Sensitive per Access Minute	Switched Non-Traffic Sensitive per Access Minute [3]	Total Charge per Conversation Minute [4]	Carrier Common Line		Local Switching
						Originating	Terminating	
ALLTEL (KY & NE)	0.00 ¢	0.00 ¢	0.49 ¢	0.44 ¢	1.90 ¢	691	1,507	2,245
BellSouth	0.00	0.00	0.39	0.27	1.34	19,691	60,348	60,285
CenturyTel [5]	0.01	0.00	0.53	0.73	2.55	454	1,524	1,978
Cincinnati Bell	0.00	0.00	0.52	0.31	1.69	769	2,175	2,944
Citizens	0.04	0.00	0.57	0.41	1.99	2,133	4,129	6,264
Iowa Telecom	0.00	0.00	1.15	0.61	3.60	274	429	704
Qwest	0.00	0.00	0.62	0.16	1.61	16,077	29,870	46,146
SBC	0.00	0.00	0.42	0.24	1.35	57,523	62,245	118,294
Sprint	0.00	0.00	0.61	0.14	1.54	4,656	17,943	21,559
Valor	0.00	0.00	0.77	0.38	2.34	306	994	1,301
Verizon	0.00	0.00	0.45	0.20	1.32	36,547	102,421	139,757
Price-cap Carriers	0.00	0.00	0.46	0.22	1.41	139,121	283,585	401,476
NECA	0.00	0.00	1.26	0.71	4.03	*	*	18,994
All Price-cap Carriers and NECA	0.00 ¢	0.00 ¢	0.50 ¢	0.25 ¢	1.53 ¢	*	*	420,470

* NECA no longer files information regarding originating and terminating Carrier Common Line (CCL) charges

[1] This table shows average rates (weighted by minutes of use) for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool. Rates are composites of all regions and subsidiaries of each local exchange carrier. No information is available for those carriers that are not in the NECA pool, but are subject to rate-of-return regulation. The average rates reported here do not include the average revenue per minute from subscriber line charges (SLCs) or primary interexchange carrier charges (PICCs), both of which are reported in Table 1.1.

[2] Effective 07/01/03, the carrier common line (CCL) rates for NECA carriers were eliminated.

[3] Non-traffic sensitive charges include charges assessed on a per-month, per-unit basis. Prior to 07/01/94 these charges were included in the average traffic-sensitive rates.

[4] The total charge per conversation minute consists of charges on the originating end of the call, which are adjusted for dialing and call setup time, plus charges on the terminating end. Originating charges per conversation minute equal the carrier common line charge per originating access minute plus the traffic-sensitive charge per switched minute, both multiplied by 1.07 to account for dialing and call setup time, plus the non-traffic-sensitive charge per switched minute. Terminating charges per conversation minute equal carrier common line charges per terminating access minute plus both traffic-sensitive and non-traffic-sensitive charges per switched minute.

[5] Data reflect only those company study areas subject to price-cap regulation.

Source: Access tariff filings.

2 Advanced Telecommunications

Congress directed the Commission and the states, in section 706 of the Telecommunications Act of 1996, to encourage deployment of advanced telecommunications capability in the United States on a reasonable and timely basis. To assist in its evaluation of such deployment, the Commission launched a formal data collection program (FCC Form 477) to gather standardized information about subscribership to high-speed services, including advanced services, from wireline telephone companies, cable TV companies, terrestrial wireless providers, satellite providers, and any other facilities-based providers of advanced telecommunications capability.

A facilities-based provider of high-speed service lines (or wireless channels) in a given state reports to the Commission basic information about its service offerings and customers if the provider has at least 250 such lines in service in that state. While providers not meeting the reporting threshold may provide information on a voluntary basis, as some have done, we have no assurance that all such providers have reported data.

Table 2.1 shows high-speed lines (over 200 Kbps in at least one direction) for the following types of technology: Asymmetric digital subscriber lines (ADSL), wireline other than ADSL, coaxial cable, fiber, and satellite and fixed wireless. ADSL technologies provide speed in one direction greater than speed in the other direction. Wireline technologies other than ADSL include traditional telephone company high-speed services and symmetric DSL services that provide equivalent functionality. Coaxial cable includes the typical hybrid fiber-coax (HFC) architecture of upgraded cable TV systems. Fiber technologies are those optical fiber technologies deployed to the subscriber's premises (fiber-to-the-home, or FTTH). Satellite and fixed terrestrial wireless systems use radio spectrum to communicate with a radio transmitter located at the subscriber's premises. Chart 2.1 shows the growth of high-speed lines from December 1999 through June 2004, and Chart 2.2 shows the proportion of high-speed lines by technology during December 1999 and June 2004.

Table 2.2 shows advanced services lines (over 200 Kbps in both directions) by the above technologies. Chart 2.3 shows the growth of advanced services lines from December 1999 through June 2004, and Chart 2.4 shows the proportion of advanced services lines by technology during December 1999 and June 2004. Table 2.3 and Table 2.4 show comparable data with respect to residential and small business customers only. Charts 2.5 through 2.8 show the residential and small business categories comparable to the information in Charts 2.1 through 2.4, described above. Table 2.5 shows high-speed lines by state by the above technologies as of June 30, 2004. Table 2.6 shows high-speed lines by state over time.

The National Telecommunications and Information Administration (NTIA) has periodically asked the U.S. Census Bureau to include questions on telephones, computers, and Internet access as part of its *Current Population Survey*. NTIA uses this information to publish a report examining which American households have access to telephones, computers, and the Internet, and which do not. Their most recent and sixth report, *A Nation Online: Entering the*

Broadband Age, expands the outlook. Chart 2.9 shows the percent of U.S. households with computers, Internet access, and high-speed access for October 1997, December 1998, August 2000, September 2001, and October 2003. Table 2.10 and Chart 2.10 show the percentage of Internet, dial-up, and high-speed services for rural areas versus urban areas. NTIA's web site can be accessed at www.ntia.doc.gov.

Table 2.1
High-Speed Lines [1]
(Over 200 kbps in at Least One Direction)

Types of Technology [2]	1999	2000		2001		2002		2003		2004	Percent Change	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Jun 2003 - Dec 2003	Dec 2003 - Jun 2004
ADSL	369,792	951,583	1,977,101	2,693,834	3,947,808	5,101,493	6,471,716	7,675,114	9,509,442	11,398,199	24 %	20 %
Other Wireline	609,909	758,594	1,021,291	1,088,066	1,078,597	1,186,680	1,216,208	1,215,713	1,305,070	1,407,121	7	8
Coaxial Cable	1,411,977	2,284,491	3,582,874	5,184,141	7,059,598	9,172,895	11,369,087	13,684,225	16,446,322	18,592,636	20	13
Fiber	312,204	307,151	376,203	455,593	494,199	520,884	548,471	575,613	602,197	638,812	5	6
Satellite or Wireless	50,404	65,615	112,405	194,707	212,610	220,588	276,067	309,006	367,118	421,690	19	15
Total Lines	2,754,286	4,367,434	7,069,874	9,616,341	12,792,812	16,202,540	19,881,549	23,459,671	28,230,149	32,458,458	20 %	15 %

See notes following Table 2.4.

Chart 2.1
Total High-Speed Lines

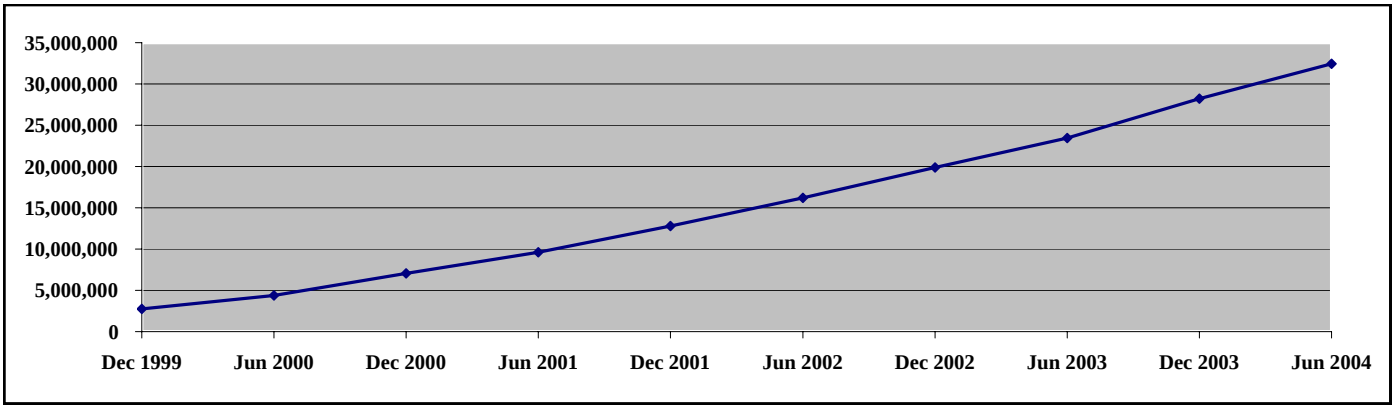


Chart 2.2
High-Speed Lines by Technology

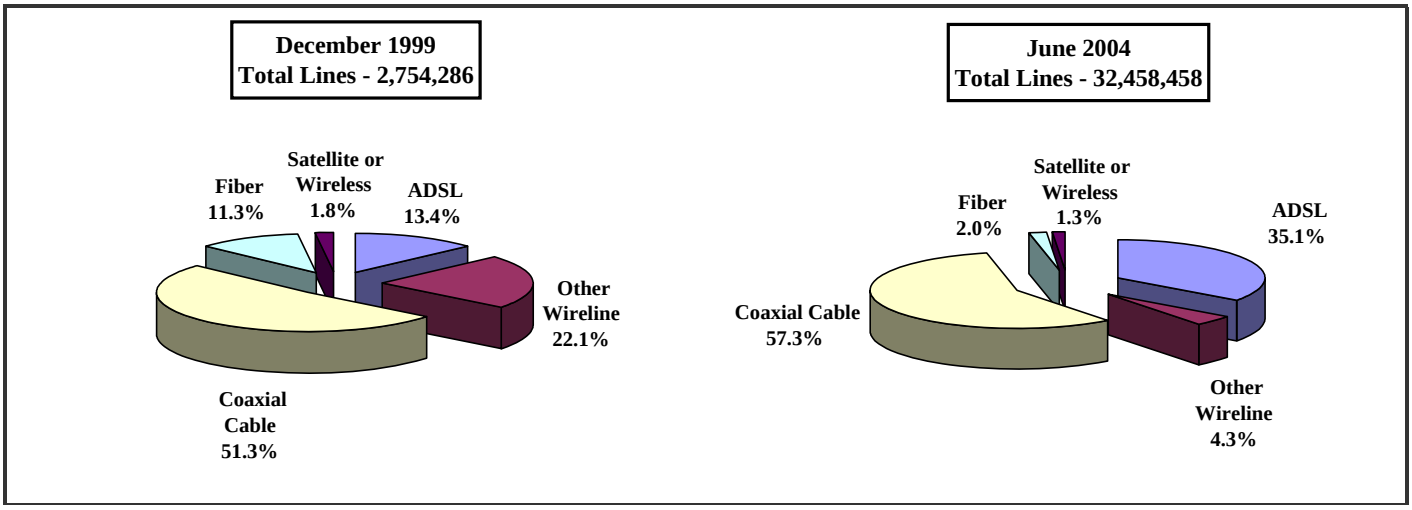


Table 2.2
Advanced Services Lines [1]
(Over 200 kbps in Both Directions)

Types of Technology [2]	1999	2000		2001		2002		2003		2004	Percent Change	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Jun 2003 - Dec 2003	Dec 2003 - Jun 2004
ADSL	185,950	326,816	675,366	998,883	1,369,143	1,852,879	2,178,394	2,536,368	3,037,474	3,768,019	20 %	24 %
Other Wireline	609,909	758,594	1,021,291	1,088,066	1,078,597	1,186,680	1,216,208	1,215,713	1,305,070	1,407,121	7	8
Coaxial Cable	877,465	1,469,130	2,193,609	3,329,976	4,394,778	6,819,395	8,342,234	11,935,866	15,327,247	17,567,468	28	15
Fiber	307,315	301,143	376,197	455,549	486,483	518,908	548,123	575,057	601,441	637,520	5	6
Satellite or Wireless	7,816	3,649	26,906	73,476	75,341	66,073	65,929	64,393	73,222	93,805	14	28
Total Lines	1,988,455	2,859,332	4,293,369	5,945,950	7,404,343	10,443,935	12,350,888	16,327,396	20,344,453	23,473,932	25 %	15 %

See notes following Table 2.4.

Chart 2.3
Advanced Services Lines

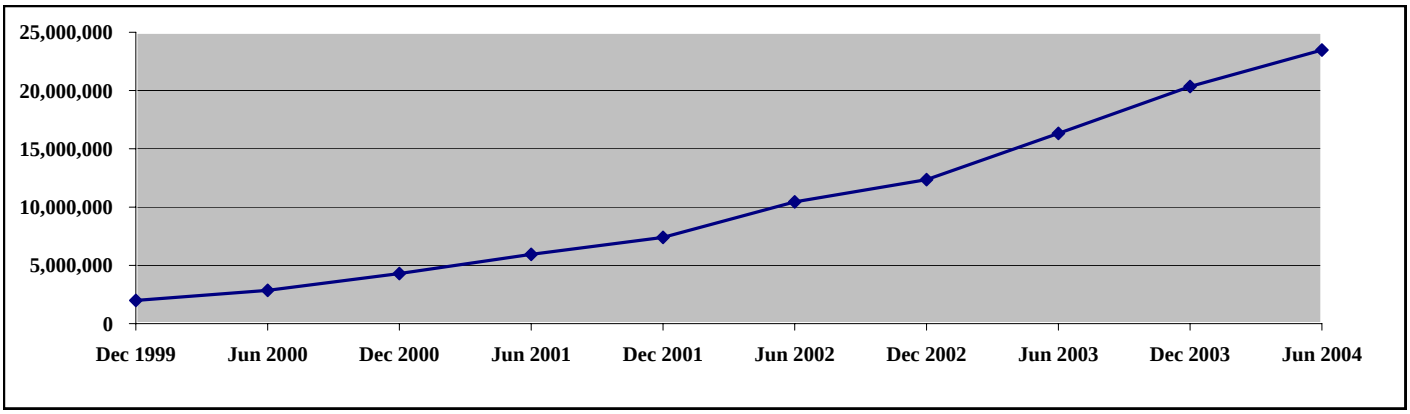


Chart 2.4
Advanced Services Lines by Technology

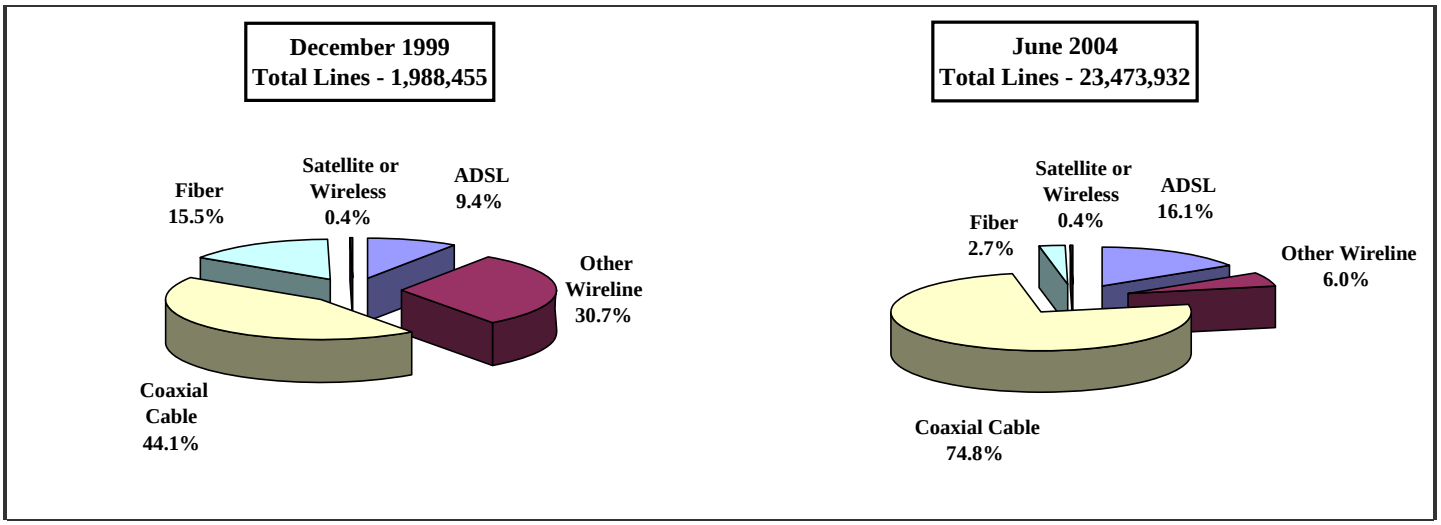


Table 2.3
Residential and Small Business High-Speed Lines [1]
(Over 200 kbps in at Least One Direction)

Types of Technology [2]	1999	2000		2001		2002		2003		2004	Percent Change	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Jun 2003 - Dec 2003	Dec 2003 - Jun 2004
ADSL	291,757	772,272	1,594,879	2,490,740	3,615,989	4,395,033	5,529,241	6,429,938	8,909,027	10,759,495	39 %	21 %
Other Wireline	46,856	111,490	176,520	138,307	139,660	223,599	213,489	250,372	289,764	393,049	16	36
Coaxial Cable	1,402,394	2,215,259	3,294,546	4,998,540	7,050,709	9,157,285	11,342,512	13,660,541	16,416,364	18,525,265	20	13
Fiber	1,023	325	1,994	2,623	4,139	6,120	14,692	16,132	19,830	22,719	23	15
Satellite or Wireless	50,189	64,320	102,432	182,165	194,897	202,251	256,978	288,786	341,864	387,563	18	13
Total Lines	1,792,219	3,163,666	5,170,371	7,812,375	11,005,396	13,984,287	17,356,912	20,645,769	25,976,850	30,088,091	26 %	16 %

See notes following Table 2.4.

Chart 2.5
Residential and Small Business High-Speed Lines

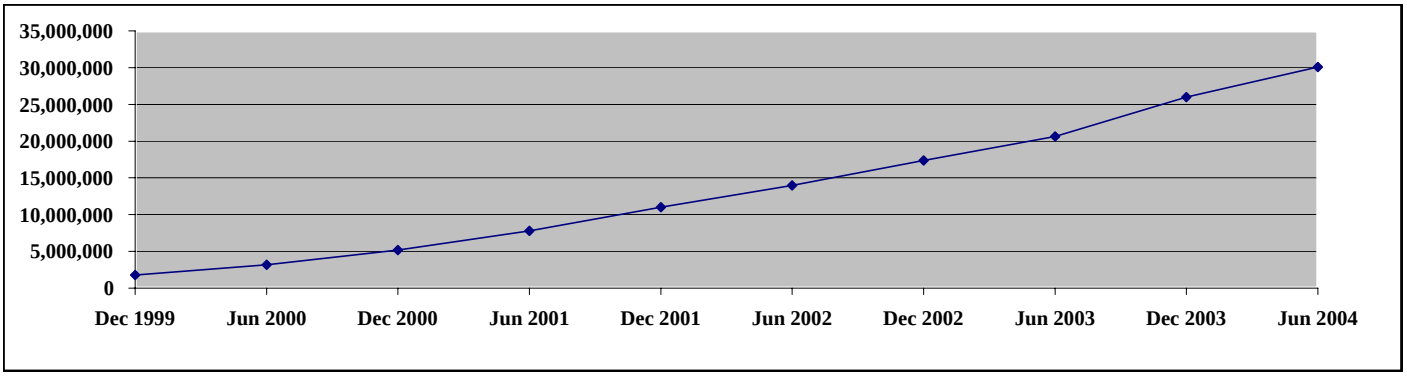


Chart 2.6
Residential and Small Business High-Speed Lines by Technology

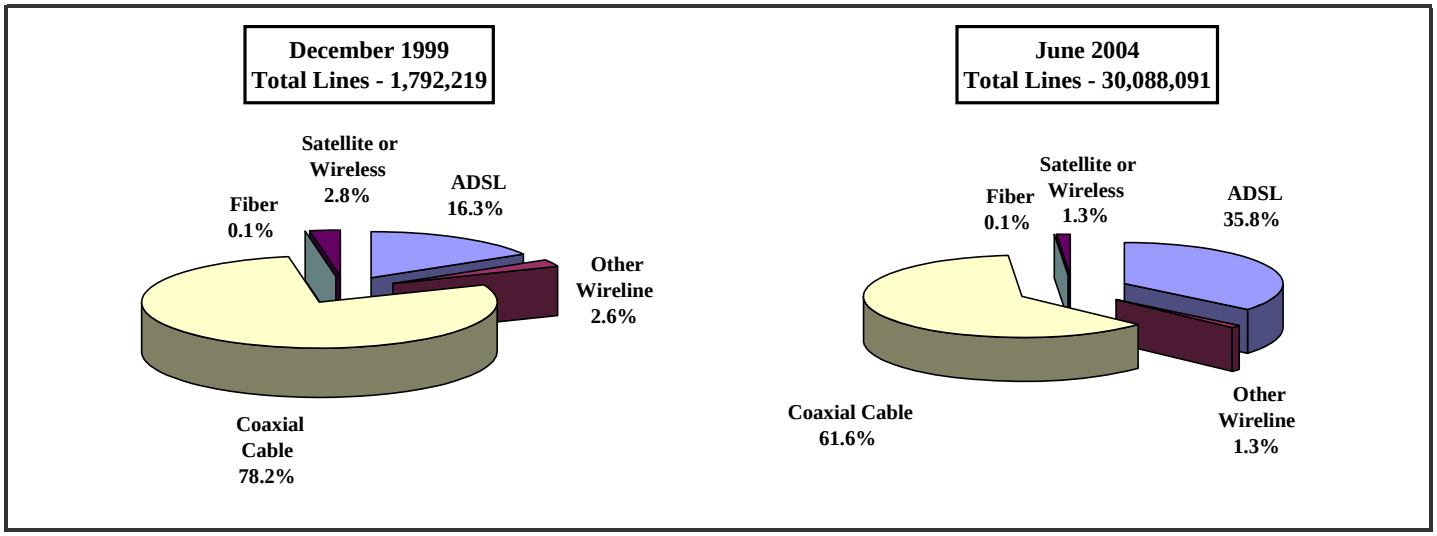


Table 2.4
Residential and Small Business Advanced Services Lines [1]
(Over 200 kbps in Both Directions)

Types of Technology [2]	1999	2000		2001		2002		2003		2004	Percent Change	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Jun 2003 - Dec 2003	Dec 2003 - Jun 2004
ADSL	116,994	195,324	393,246	916,364	1,243,996	1,580,575	1,827,547	2,071,779	2,437,059	3,174,022	18 %	30 %
Other Wireline	46,856	111,490	176,520	138,307	139,660	223,599	213,489	250,372	289,764	393,049	16	36
Coaxial Cable	872,024	1,401,434	2,177,328	3,146,953	4,388,967	6,809,170	8,322,157	11,920,207	15,297,289	17,505,907	28	14
Fiber	138	325	1,992	2,617	3,523	5,118	14,408	15,751	19,074	21,866	21	15
Satellite or Wireless	7,682	2,916	17,043	60,988	58,113	47,787	47,903	46,407	51,944	72,485	12	40
Total Lines	1,043,694	1,711,488	2,766,130	4,265,229	5,834,258	8,666,249	10,425,505	14,304,515	18,095,131	21,167,329	26 %	17 %

See notes following charts.

Chart 2.7
Residential and Small Business Advanced Services Lines

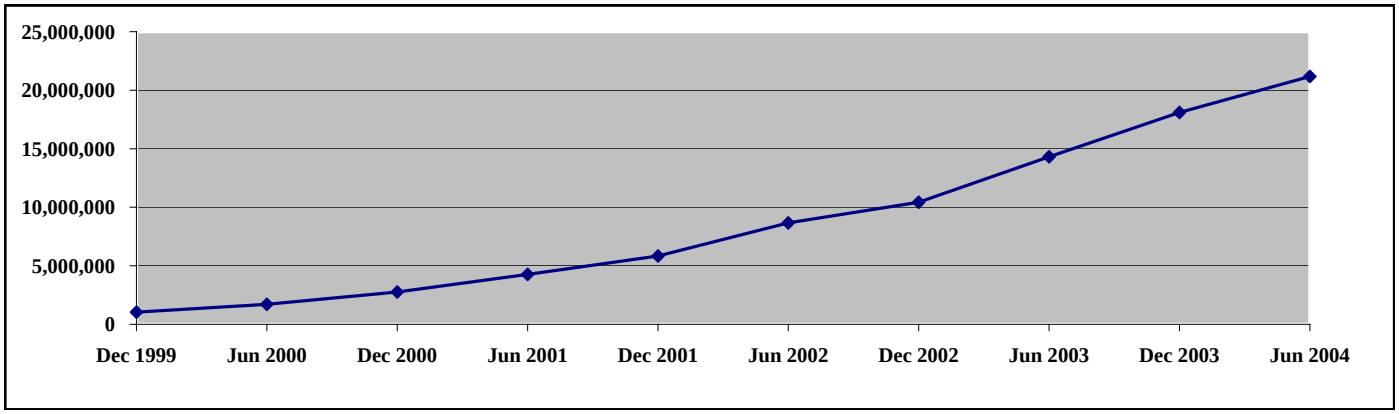
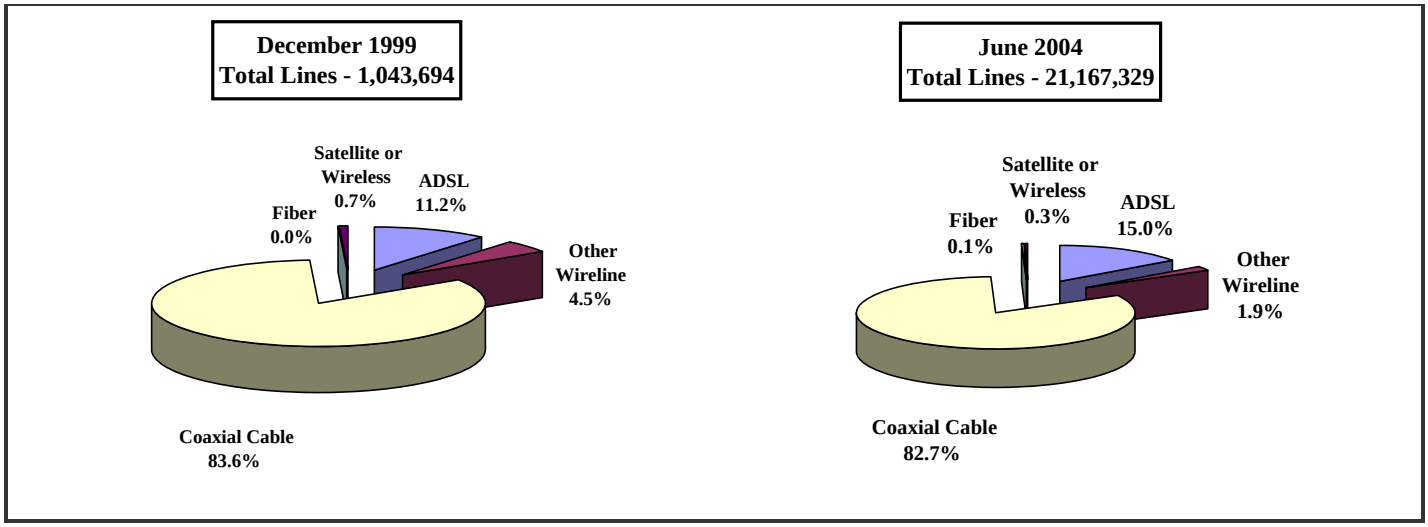


Chart 2.8
Residential and Small Business Advanced Services Lines by Technology



Notes for Tables 2.1 - 2.4.

NM - Not meaningful due to small number of lines.

Notes: Residential and small business advanced services lines are estimated based on data from FCC Form 477.

[1] A high-speed line is a connection to an end-user customer that is faster than 200 kbps in at least one direction. Advanced services lines, which are a subset of high-speed lines, are connections to end-user customers that are faster than 200 kbps in both directions. The speed of the purchased service varies among end-user customers. For example, a high-speed service delivered to the end-user customer over other traditional wireline technology, such DS1 or DS3 service, or over optical fiber to the end user's premises may be much faster than the ADSL or cable modem service purchased by a different, or by the same, end user. Numbers of lines reported here are not adjusted for the speed of the service delivered over the line or the number of end users able to utilize the lines.

[2] The mutually exclusive types of technology are, respectively: Asymmetric digital subscriber line (ADSL) technologies, which provide speeds in one direction greater than speeds in the other direction; wireline technologies "other" than ADSL, including traditional telephone company high-speed services and symmetric DSL services that provide equivalent functionality; coaxial cable, including the typical hybrid fiber-coax (HFC) architecture of upgraded cable TV systems; optical fiber to the subscriber's premises (e.g., Fiber-to-the-Home, or FTTH); and satellite and terrestrial wireless systems, which use radio spectrum to communicate with a radio transmitter.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of June 30, 2004* (December 2004).

Table 2.5
High-Speed Lines by Technology as of June 30, 2004
(Over 200 kbps in at Least One Direction)

State	ADSL	Coaxial Cable	Other [1]	Total
Alabama	112,059	206,208	32,424	350,691
Alaska	20,686	*	*	88,076
Arizona	108,735	457,869	56,638	623,242
Arkansas	80,981	95,528	11,924	188,433
California	2,342,186	1,929,080	421,923	4,693,189
Colorado	201,523	280,909	39,596	522,028
Connecticut	204,034	299,176	17,096	520,306
Delaware	10,572	*	*	75,593
District. of Columbia	44,231	*	*	96,078
Florida	928,402	1,171,641	158,259	2,258,302
Georgia	535,088	407,038	119,693	1,061,819
Guam	*	0	0	*
Hawaii	*	*	*	*
Idaho	35,166	*	*	99,845
Illinois	588,906	589,025	127,160	1,305,091
Indiana	179,942	304,866	34,706	519,514
Iowa	65,580	151,299	12,932	229,811
Kansas	88,246	209,233	25,738	323,217
Kentucky	119,709	154,567	26,428	300,704
Louisiana	136,406	257,405	27,115	420,926
Maine	31,577	*	*	124,191
Maryland	192,139	433,754	42,366	668,259
Massachusetts	253,576	704,956	66,200	1,024,732
Michigan	236,310	656,263	62,669	955,242
Minnesota	159,137	358,477	49,751	567,365
Mississippi	52,892	72,271	14,797	139,960
Missouri	233,916	266,493	42,780	543,189
Montana	28,238	22,856	6,556	57,650
Nebraska	35,180	142,555	21,547	199,282
Nevada	74,879	*	*	291,291
New Hampshire	31,843	129,024	7,785	168,652
New Jersey	301,789	862,834	76,599	1,241,222
New Mexico	51,375	56,369	8,106	115,850
New York	536,980	1,752,189	175,173	2,464,342
North Carolina	264,248	623,414	78,742	966,404
North Dakota	19,412	14,428	5,434	39,274
Ohio	369,386	709,145	79,256	1,157,787
Oklahoma	129,996	*	*	335,686
Oregon	142,483	262,513	34,451	439,447
Pennsylvania	346,720	724,101	70,942	1,141,763
Puerto Rico	*	*	*	43,091
Rhode Island	*	*	4,962	143,250
South Carolina	96,583	228,648	29,646	354,877
South Dakota	15,230	12,114	6,682	34,026
Tennessee	147,922	340,883	47,094	535,899
Texas	930,997	1,162,797	153,068	2,246,862
Utah	95,656	*	*	198,346
Vermont	22,519	*	*	56,033
Virgin Islands	*	0	*	*
Virginia	196,568	579,580	57,154	833,302
Washington	300,804	426,487	47,736	775,027
West Virginia	*	97,463	*	127,283
Wisconsin	159,167	371,106	34,887	565,160
Wyoming	13,510	*	*	35,464
Nationwide	11,398,199	18,592,636	2,467,623	32,458,458

* Data withheld to maintain firm confidentiality.

[1] Other includes wireline technologies other than asymmetric digital subscriber line (ADSL), optical fiber-to-the subscriber's premises, satellite, and terrestrial wireless systems.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of June 30, 2004* (December 2004).

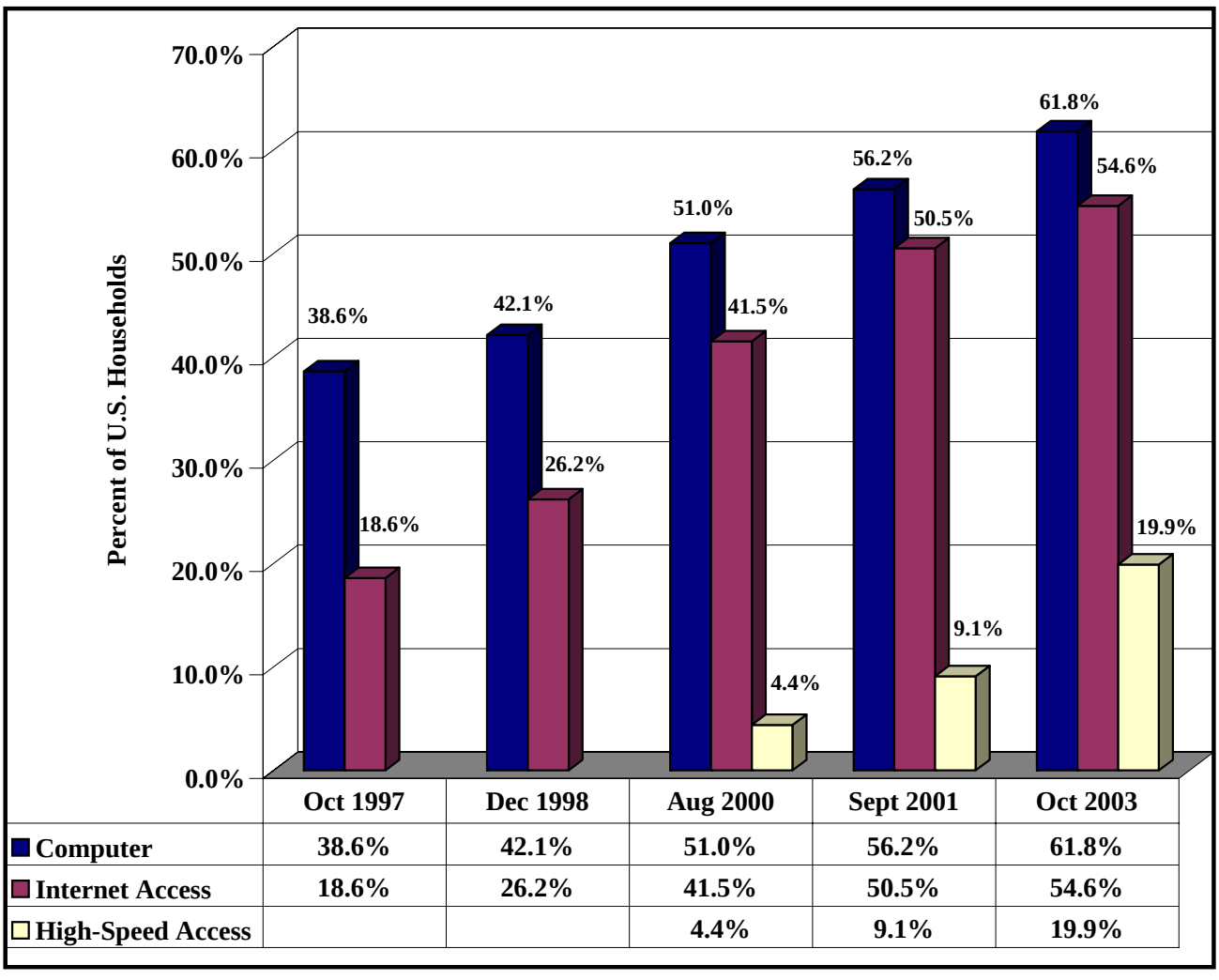
Table 2.6
High-Speed Lines by State
(Over 200 kbps in at Least One Direction)

State	1999	2000		2001		2002		2003		2004
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Alabama	19,796	32,756	63,334	86,234	138,979	172,365	227,888	283,946	352,215	350,691
Alaska	*	*	934	20,906	50,277	46,791	55,975	61,121	71,778	88,076
Arizona	58,825	111,678	153,500	158,122	251,709	308,621	370,939	445,179	536,465	623,242
Arkansas	8,155	15,539	28,968	40,803	66,537	84,235	100,280	128,311	158,197	188,433
California	547,179	910,006	1,386,625	1,705,814	2,041,276	2,598,491	3,035,756	3,456,681	4,165,658	4,693,189
Colorado	36,726	64,033	104,534	147,220	177,419	243,810	298,265	344,154	425,431	522,028
Connecticut	36,488	63,772	111,792	149,057	191,257	236,490	307,860	368,186	444,525	520,306
Delaware	1,558	3,660	7,492	12,771	26,601	36,619	51,100	55,030	69,010	75,593
District of Columbia	13,288	16,926	27,757	39,101	43,278	55,197	64,310	70,715	88,683	96,078
Florida	190,700	244,678	460,795	651,167	911,261	1,119,693	1,405,976	1,653,537	1,986,938	2,258,302
Georgia	75,870	130,292	203,855	302,598	420,206	512,135	654,833	768,060	927,398	1,061,819
Guam	0	0	0	0	0	0	0	0	0	*
Hawaii	*	*	*	*	*	*	*	*	*	*
Idaho	*	8,070	15,908	20,233	18,445	43,119	54,963	64,353	80,455	99,845
Illinois	77,672	166,933	242,239	350,241	422,706	553,442	734,171	871,469	1,088,770	1,305,091
Indiana	20,059	49,702	60,494	80,364	123,704	159,392	205,946	237,030	419,131	519,514
Iowa	19,258	49,159	58,199	72,583	82,024	102,932	121,053	162,257	191,464	229,811
Kansas	26,179	42,679	68,743	101,734	125,963	149,733	193,568	248,796	284,911	323,217
Kentucky	23,570	24,237	32,731	39,297	67,870	90,284	99,265	121,594	243,005	300,704
Louisiana	28,133	43,294	74,950	121,685	164,760	207,257	262,093	315,690	368,528	420,926
Maine	19,878	17,864	26,266	38,149	49,523	61,406	73,061	85,615	99,200	124,191
Maryland	52,749	71,005	124,465	181,021	260,634	316,666	391,397	469,826	578,004	668,259
Massachusetts	114,116	185,365	289,447	357,256	505,819	583,627	679,084	821,135	919,638	1,024,732
Michigan	81,223	135,318	198,230	395,583	433,858	538,416	640,766	736,755	848,837	955,242
Minnesota	38,268	65,272	117,283	148,012	199,856	273,907	335,562	400,370	485,839	567,365
Mississippi	*	6,514	12,305	21,517	35,586	57,595	80,922	96,111	116,495	139,960
Missouri	23,347	46,903	100,403	123,915	181,794	224,282	260,752	366,978	439,067	543,189
Montana	*	*	7,378	10,446	13,037	17,969	20,090	28,023	39,240	57,650
Nebraska	36,748	44,188	54,085	55,188	71,451	92,849	117,219	141,172	173,524	199,282
Nevada	23,514	40,582	59,879	78,535	109,850	138,042	159,179	209,732	247,442	291,291
New Hampshire	22,807	33,045	42,364	55,658	71,200	86,200	102,590	118,879	149,180	168,652
New Jersey	101,832	144,203	285,311	428,514	590,192	693,036	839,095	967,840	1,106,541	1,241,222
New Mexico	*	2,929	28,497	20,482	31,940	44,942	57,956	71,969	91,736	115,850
New York	186,504	342,743	603,487	893,032	1,199,159	1,460,894	1,725,296	1,997,340	2,262,804	2,464,342
North Carolina	57,881	81,998	136,703	205,616	357,906	461,736	594,039	681,304	842,130	966,404
North Dakota	*	2,437	4,227	6,277	6,082	14,164	20,024	25,474	31,571	39,274
Ohio	160,792	156,980	230,525	358,965	436,766	580,078	710,355	821,935	977,886	1,157,787
Oklahoma	96,730	163,703	95,138	92,947	114,931	151,213	196,556	234,823	286,510	335,686
Oregon	27,062	44,186	76,839	93,242	158,048	199,549	275,449	318,460	380,507	439,447
Pennsylvania	71,926	79,892	176,670	263,236	376,439	516,488	631,717	772,276	971,170	1,141,763
Puerto Rico	*	*	*	*	*	*	22,732	32,063	31,100	43,091
Rhode Island	*	20,628	30,919	49,215	64,293	72,553	89,821	105,610	122,255	143,250
South Carolina	25,229	32,824	63,914	96,839	135,165	175,088	222,980	262,868	310,906	354,877
South Dakota	*	3,516	2,839	5,448	9,585	12,555	18,060	22,016	28,557	34,026
Tennessee	66,307	87,317	122,391	152,510	237,401	294,573	369,370	414,713	471,341	535,899
Texas	152,518	276,087	522,538	646,839	840,665	1,050,511	1,349,628	1,610,935	1,924,664	2,246,862
Utah	11,635	19,612	35,970	55,103	72,977	93,928	121,744	135,007	162,905	198,346
Vermont	*	1,551	7,773	16,230	21,795	29,990	32,814	39,773	44,724	56,033
Virgin Islands	0	*	*	*	*	*	*	*	*	*
Virginia	51,305	72,436	139,915	212,808	292,772	360,722	463,455	567,513	716,839	833,302
Washington	71,930	118,723	195,628	227,066	335,667	422,348	485,063	577,378	672,247	775,027
West Virginia	*	1,835	6,498	16,697	32,848	58,209	78,980	90,173	100,937	127,283
Wisconsin	18,599	34,262	76,257	127,755	182,395	257,099	335,991	401,995	488,620	565,160
Wyoming	*	*	*	*	7,856	10,990	14,696	17,507	24,818	35,464
Nationwide	2,754,286	4,367,434	7,069,874	9,616,341	12,792,812	16,202,540	19,881,549	23,459,671	28,230,149	32,458,458

* Data withheld to maintain firm confidentiality.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau,*High-Speed Services for Internet Access: Status as of June 30, 2004* (December 2004).

Chart 2.9
Percent of U.S. Households
With Computers, Internet Access, and High-Speed Access
Selected Years (1997 - 2003) *



	Oct 1997	Dec 1998	Aug 2000	Sept 2001	Oct 2003
Computer	38.6%	42.1%	51.0%	56.2%	61.8%
Internet Access	18.6%	26.2%	41.5%	50.5%	54.6%
High-Speed Access			4.4%	9.1%	19.9%

* Years 2001 and 2003 reflect Census-based weights and earlier years use 1990 Census-based weights.

Source: *A Nation Online: Entering the Broadband Age*, September 2004, U.S. Department of Commerce, Economics and Statistics Administration (ESA), National Telecommunications and Information Administration (NTIA), and U.S. Census Bureau.

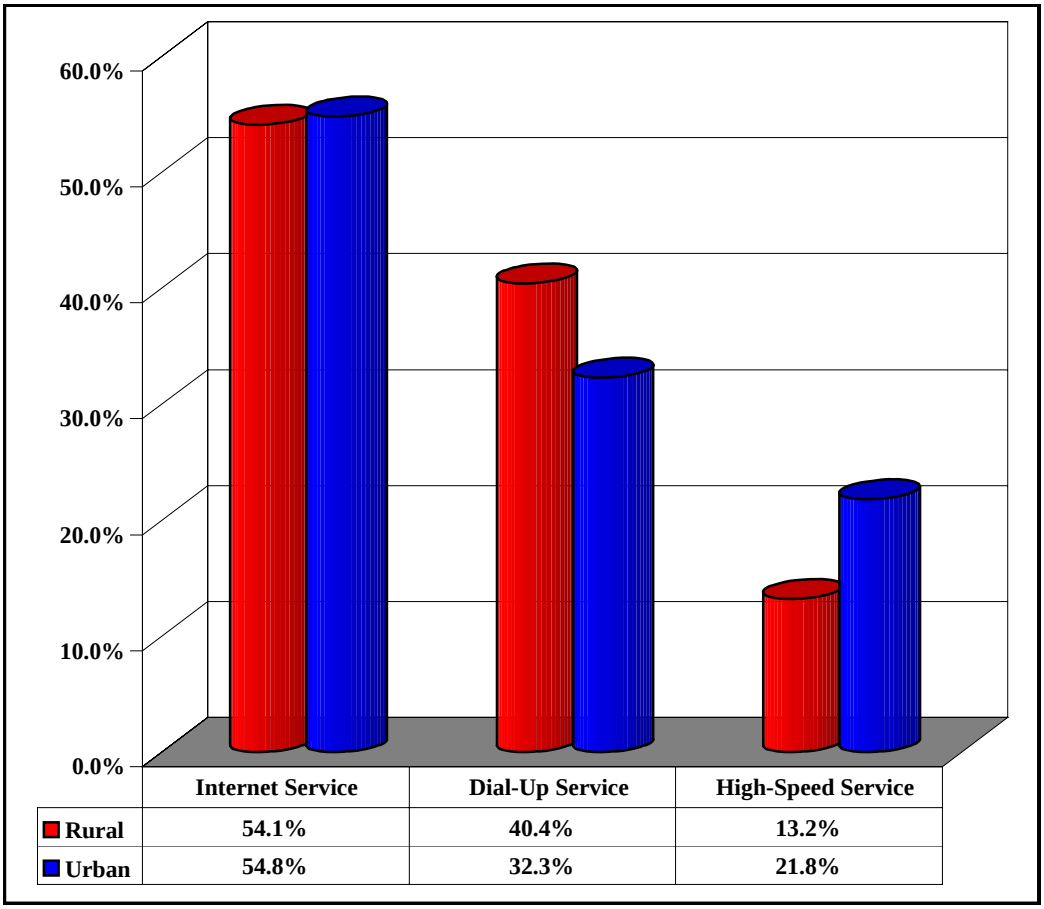
Table 2.7
Percent of U.S. Households with Internet and High-Speed Access:
Rural versus Urban
(As of October 2003)

	Rural	Urban	Total
Internet Service	54.1 %	54.8 %	54.6 %
Dial-Up Service	40.4	32.3	34.3
High-Speed Service	13.2	21.8	19.9
Cable Modem	7.7	12.4	11.2
DSL	5.0	9.4	8.3
Satellite and Fixed Wireless (MMDS[1])	0.6	0.3	0.4
Other	0.4	0.5	0.4

[1] MMDS - Multi-Media Distribution Systems.

Source: *A Nation Online: Entering the Broadband Age*, September 2004, U.S. Department of Commerce, Economics and Statistics Administration (ESA), National Telecommunications and Information Administration (NTIA), and U.S. Census Bureau

Chart 2.10
Percent of U.S. Households with Internet and High-Speed Access:
Rural versus Urban
(As of October 2003)



3 Consumer Expenditures

The Bureau of Labor Statistics conducts surveys of consumer expenditures, in part, to develop weights for CPI indices. Table 3.1 shows total annual expenditures for telephone service for all consumer units.

About 2% of all consumer expenditures are devoted to telephone service. This percentage has remained virtually unchanged over the past fifteen years, despite major changes in the telephone industry and in telephone usage. Average annual expenditures on telephone service increased from $375 per household in 1982 to $956 in 2003.

Bill Harvesting® data collected by TNS Telecoms provide information on the telecommunications expenditures of households. (Additional information on TNS Telecoms can be found in Section 14 and Appendix B.)

Expenditures can be classified by the type of service provider. Table 3.2 presents average monthly household bills to local exchange, long distance and wireless providers for 1995 through 2003. The upper portion of the table shows average monthly expenditures for the entire sample of households while the lower shows average monthly expenditures among those households billed by each type of service provider. The average monthly household bill from local exchange service providers is the same in both portions of the table since every household in the sample was billed by a local exchange service provider. For long distance and wireless providers, average monthly household expenditures are greater in the latter portion of the table since those households not billed by these providers are removed from the average.

It's important to note that categorizing telecommunications providers by the type of service they provide has become increasingly difficult. For some households taking bundled local and long distance service, it was impossible to separate the bill into its component parts. In those cases, the entire bill was allocated to the local exchange service provider.
.

Table 3.1

Household Expenditures for Telephone Service

Year	Annual Expenditures for All Households		Telephone Expenditures as a Percent of All Expenditures
	All Expenditures	Telephone Expenditures	
1981	$17,558	$360	2.1 %
1982	18,071	375	2.1
1983	19,692	415	2.1
1984	21,975	435	2.0
1985	23,490	455	1.9
1986	23,866	471	2.0
1987	24,414	499	2.0
1988	25,892	537	2.1
1989	27,810	567	2.0
1990	28,381	592	2.1
1991	29,614	618	2.1
1992	29,846	623	2.1
1993	30,692	658	2.1
1994	31,731	690	2.2
1995	32,264	708	2.2
1996	33,797	772	2.3
1997	34,819	809	2.3
1998	35,535	830	2.3
1999	36,995	849	2.3
2000	38,045	877	2.3
2001	39,518	914	2.3
2002	40,677	957	2.4
2003	40,817	956	2.3

Source: Bureau of Labor Statistics, *Consumer Expenditure Survey.*

Table 3.2
Average Monthly Household Telecommunications Expenditures By Type of Provider

(Averages for all Households)

Year	Wireline Providers			Wireless Providers	Total
	Local Exchange	Long Distance	Total		
1995	$30	$21	$51	$7	$58
1996	30	21	51	9	60
1997	32	25	57	11	68
1998	33	23	56	14	69
1999	34	21	55	17	72
2000	35	18	52	23	75
2001	36	15	50	29	79
2002	36	12	49	35	83
2003	37	10	47	41	88

(Averages for only those Households Billed for Service)

Year	Wireline Providers			Wireless Providers	Total
	Local Exchange	Long Distance	Total		
1995	$30	$24	$54	$46	$100
1996	30	26	56	45	101
1997	32	28	60	40	100
1998	33	28	61	41	102
1999	34	25	58	42	100
2000	35	24	59	46	104
2001	36	21	57	51	108
2002	36	19	55	56	111
2003	37	16	53	62	114

Note: **Average monthly household expenditures are estimates based on sample data.** All households in the sample have wireline telephone service. Households in Alaska and Hawaii are excluded from the analysis. No effort was made to distinguish bundled prices from a la carte prices. For households taking bundled local and long distance from the same provider, the entire bill is generally considered local.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™, Bill Harvesting®.*

4 Earnings

Beginning in the mid-1980s, local exchange carriers that file access tariffs with the Commission were required to file rate-of-return reports (FCC Form 492). The first reports were filed for the monitoring period October 1, 1985 - December 31, 1986. Carriers filed reports for each subsequent two-year monitoring period (1987-88 and 1989-90).

In 1991, carriers that became subject to price-cap incentive regulation began filing reports on a yearly basis. Non-price-cap carriers continued to file reports for each two-year monitoring period (1991-1992, 1993-1994, 1995-1996, 1997-1998, 1999-2000, and 2001-2002), as well as annual reports for 1991, 1993, 1995, 1997, 1999, 2001, and 2003. Rate-of-return reports were previously required for AT&T but have been discontinued. Table 4.1 is a summary of rates of return for 1997-2003 for price-cap carriers. Rates of return for 1991-1996 can be found in the August 2001 *Trends* report which can be accessed at www.fcc.gov/wcb/stats.

The rates of return shown in Table 4.1 were those posted at the time of the carriers' individual FCC Form 492 filings. They do not reflect revisions filed by the carriers at a later date. Thus, they are not necessarily the official versions for regulatory purposes, but they do illustrate general industry trends. Summaries of the filings can be found on the **FCC-State Link** web site at www.fcc.gov/wcb/stats. Copies of the FCC Form 492 reports are on file in the FCC's Reference Information Center, Courtyard Level, 445 12th Street S.W., Washington, D.C. 20554.

Table 4.1

Interstate Rate of Return Summary *
Years 1997 through 2003
Price-Cap Companies Reporting FCC Form 492A
(Final Reports for 1997 Through 2002 and Initial Report for 2003) [1]

	Reporting Entity	2003	2002	2001	2000	1999	1998	1997
1	**BellSouth Telecommunications, Inc.**	21.93 %	19.35 %	21.25 %	22.83 %	20.99 %	20.80 %	17.91 %
2	**Qwest Corporation, Including Malheur and El Paso**	23.03	20.08	19.14	19.93	19.06	16.56	15.41
	SBC Communications, Inc.							
3	Southwestern Bell Telephone Company L.P.	15.60	14.88	18.81	15.17	10.22	9.91	10.32
4	Ameritech Operating Companies	20.55	20.24	25.72	30.24	28.93	22.59	18.22
5	Nevada Bell Telephone Company	20.16	14.86	20.86	21.55	19.26	16.02	19.47
6	Pacific Bell Telephone Company	26.23	21.00	23.79	19.20	21.01	16.50	11.98
7	Southern New England Telephone Company, The	23.93	18.47	23.57	18.21	12.12	10.99	12.70
	Verizon Telephone Companies							
8	Verizon Telephone Companies (Verizon FCC Tariff No. 1)	7.99	11.95	12.93	13.36	13.66		
	(Former Bell Atlantic Companies)							
	Bell Atlantic						13.88	14.73
	Bell Atlantic (NYNEX)						11.40	13.72
	New England Telephone and Telegraph Co.							
	New York Telephone							
9	Verizon California Inc. (California - GTCA)	29.99	28.50	28.48	25.87	22.01	17.19	17.68
10	Verizon California Inc. (California - COCA)	29.90	28.22	29.80	28.74	28.28	22.71	19.16
11	Verizon California Inc. (Arizona - COAZ)	2.03	6.99	13.25	10.9	15.57	13.80	14.17
12	Verizon California Inc. (Nevada - CONV)	28.50	24.08	26.66	28.82	20.57	24.01	31.44
13	Verizon Florida Inc. (Florida - GTFL)	24.16	22.03	29.23	21.90	18.93	14.58	19.14
14	Verizon Hawaii Inc. (Hawaii - GTHI)	16.85	15.30	16.72	17.87	17.62	15.64	10.55
15	Verizon North Inc. (COPA + COQS = COPT)	41.44	43.61	39.71	41.05	39.58	45.97	36.83
16	Verizon North Inc. (Illinois - COIL)	59.89	54.09	53.67	44.51	41.03	14.11	41.14
17	Verizon North Inc. (Indiana - COIN)	47.29	46.06	46.55	47.67	41.40	34.61	33.26
18	Verizon North Inc. (Ohio - GTOH)	19.54	19.53	20.45	21.88	21.7	21.83	24.37
19	Verizon North Inc. (Pennsylvania - GTPA)	13.62	22.50	23.17	21.95	21.41	14.67	20.62
20	Verizon North Inc. (Wisconsin - GTWI)	10.85	9.90	14.16	16.99	17.85	16.08	18.75
21	Contel of the South, Inc. dba Verizon North Sys (IN - GLIN)	20.00	24.75	32.82	33.00	32.47	29.06	23.61
22	Verizon North/Contel South (GTMI + GLMI = GAMI)	15.11	16.64	17.49	16.45	15.75	13.17	15.33
23	Verizon North/Verizon South (GTIL + GLIL = GAIL)	22.82	21.54	23.67	23.90	22.35	23.07	21.59
24	Verizon Northwest Inc. (Oregon - GTOR)	26.40	26.10	31.69	30.95	31.56	27.03	28.23
25	Verizon Northwest Inc. (West Coast CA - GNCA)	(14.17)	(5.17)	1.91	(8.35)	(9.93)	(6.85)	(25.83)
26	Verizon Northwest Inc. (Washington - COWA)	37.26	31.57	40.06	39.49	39.17	30.41	31.85
27	Verizon Northwest Inc. (Washington - GTWA)	30.24	28.97	34.03	33.26	32.91	27.33	24.41
28	Verizon Northwest Inc. (Idaho - GTID)	28.19	33.01	38.74	34.17	32.24	30.89	30.52
29	Verizon South Inc. (North Carolina - GTNC)	16.82	23.45	30.08	26.44	24.85	27.92	24.48
30	Verizon South Inc. (N. Carolina - CONC)	14.80	21.97	22.17	17.75	19.87	12.78	16.63
31	Verizon South Inc. (GTSC + COSC = GTST)	28.92	29.82	32.44	31.19	30.70		
	Verizon South Inc. (Alabama - GTAL)			24.02	20.24	22.23	17.59	23.49
	Verizon South Inc. (Kentucky - COKY)			30.95	20.60	9.55	5.97	6.62
	Verizon South Inc. (Kentucky - GTKY)			27.21	25.07	24.03	22.34	20.57
	GTE South Inc. (South Carolina - GTSC)						30.62	24.06
	GTE South Inc. (South Carolina - COSC)						26.14	25.09
32	Verizon South Inc. (Virginia - COVA)	39.51	40.41	40.69	40.85	34.74	35.19	33.65
33	Verizon South Inc. (Virginia - GTVA)	(17.50)	1.76	9.53	6.62	9.94	20.56	23.76
34	GTE Southwest Inc. dba Verizon Southwest (Texas - COTX)	10.01	12.46	11.9	12.17	17.13	14.96	18.10
35	GTE Southwest Inc. dba Verizon Southwest (Texas - GTTX)	18.70	20.47	24.35	21.65	21.42	16.43	14.81
36	Micronesian Telecomms. Corp. (N. Mariana Islands - GTMC)	33.91	32.75	21.83	23.58	29.24	34.45	21.17
	GTE Midwest Inc. (Missouri - COMO + COCM + COEM = COMT)			20.33	17.06	15.29	12.56	12.39
	GTE Midwest Inc. (Missouri - GTMO)			23.92	19.15	11.82	16.08	17.88
	GTE Systems of The South (Alabama - COAL)			15.77	14.93	10.88	7.97	15.31

Table 4.1

Interstate Rate of Return Summary *
Years 1997 through 2003
Price-Cap Companies Reporting FCC Form 492A - Continued
(Final Reports for 1997 Through 2002 and Initial Report for 2003) [1]

	Reporting Entity	2003	2002	2001	2000	1999	1998	1997
	Sprint							
37	Central Telephone Company - Nevada Division	34.16 %	23.80 %	19.61 %	19.29 %	21.15 %	17.79 %	17.07 %
38	Sprint - Florida Incorporated	35.54	29.41	25.89	27.38	27.17	26.14	20.05
39	Sprint Local Telephone Cos. - Eastern (NJ & PA)	45.38	37.78	26.21	25.62	20.87	14.59	17.36
40	Sprint Local Telephone Cos. - Midwest (MO, KS, MN, NE, WY, TX)	25.24	18.89	16.63	18.88	17.69	19.66	19.97
41	Sprint Local Telephone Cos. - North Carolina	45.89	36.64	25.56	22.23	15.92	12.55	16.54
42	Sprint Local Telephone Cos. - Northwest (OR & WA)	33.51	34.62	31.55	32.77	31.86	32.54	30.59
43	Sprint Local Telephone Cos. - Southeast (TN, VA & SC)	34.34	33.76	25.33	23.32	17.50	15.87	17.62
44	United Telephone Co. of Indiana, Inc.	46.47	41.75	35.19	38.21	28.98	24.19	26.13
45	United Telephone Co. of Ohio	31.50	30.89	27.13	20.03	20.16	17.33	13.91
	Central Telephone of Illinois							18.92
	All Other Companies							
46	ALLTEL Nebraska, Inc.	13.43	12.20	12.57	12.99	19.27	15.02	12.27
47	Kentucky ALLTEL - Lexington, Inc.	26.75	27.78					
48	Kentucky ALLTEL - London, Inc.	26.26	28.76					
49	CenturyTel of Belle-Hermann/So Missouri/Sw Missouri (CNMO)	23.20	4.69 [2]					
50	CenturyTel of Central Missouri (CNMC)	47.17	11.83 [2]					
51	CenturyTel of Northern Alabama (CNAN)	17.17	7.49 [3]					
52	CenturyTel of Southern Alabama (CNAS)	34.53	15.78 [3]					
53	Cincinnati Bell Telephone Company	32.48	28.64 [4]	30.09	28.95	25.45	17.81	20.04
54	Citizens Telecommunications Cos. (CTC1)	24.40	19.27	15.73	19.68	16.71	17.87	9.77
55	Citizens Telecommunications Cos. (CTC2)	16.14	20.67	17.30	24.05	15.74	14.29	13.25
56	Citizens Telecommunications Cos. (CTC3)	10.40	8.94	4.52	16.12	15.56		
57	Citizens Telecommunications Cos. (CTC4)	35.38	23.31	13.08	30.94			
58	Citizens Telecommunications Cos. (CTC5)	40.37	4.90	0.86	(11.23)			
59	Frontier Telephone of Rochester	10.67	11.47	12.32	18.91	16.77	18.37	13.19
60	Frontier Tier 2 Concurring Companies	38.49	33.34	38.12	38.95	43.42	45.45	31.93
61	Frontier Communications of Minnesota & Iowa	32.16	31.15	25.24	33.16	35.40	29.28	28.26
62	Iowa Telecom Service Group	17.58	14.26 [4]	13.07				
63	Iowa Telecom Systems Service Group	23.97	20.47 [4]	18.45				
64	Valor New Mexico #1164	18.45	16.86	11.45	20.67			
65	Valor New Mexico #1193	20.41	15.88	8.39	13.35			
66	Valor Oklahoma	8.69	9.31	11.65	11.22			
67	Valor Texas	15.21	10.66	5.70	5.24			
	Maximum Rate of Return	59.89 %	54.09 %	53.67 %	47.67 %	43.42 %	47.21 %	48.69 %
	Minimum Rate of Return	(17.50)	(5.17)	0.86	(11.23)	(9.93)	(6.85)	(25.83)
	Weighted Arithmetic Mean	18.06	17.69	19.62	18.04	18.50	16.52	15.60
	Standard Deviation	8.63	5.69	5.80	5.17	5.96	5.13	3.96

* The interstate rates of return reported by carriers on the FCC Form 492A may not necessarily agree with the interstate rates of return reported by the carriers on other Commission forms. For example, price-cap carriers also report interstate rates of return on the Commission's Automated Reporting Management Information System's (ARMIS) 43-01 report. The interstate rates of return reported by carriers on the ARMIS 43-01 include revenues and costs for non-price-cap services.

[1] For years 1991 - 1996, see Industry Analysis Division, Common Carrier Bureau, *Trends in Telephone Service* (August 2001).

[2] For the reporting period 9/1/02 - 12/31/02.

[3] For the reporting period 7/1/02 - 12/31/02.

[4] For final 2002, there were no changes to the preliminary.

5 Employment and Labor Productivity

The Bureau of Labor Statistics (BLS) publishes monthly data regarding the total number of employed workers in the communications industry. Specifically, BLS compiles employment statistics for the entire telephone communications industry.[1] These are classified according to the North American Industry Classification System (NAICs).

NAICS is a collaborative effort between the United States, Canada, and Mexico to provide new comparability in statistics about business activity across North America. The telecommunications industry subsector (517) can be found in the NAICS *Information Sector – 51*. The industry groups under telecommunications are as follows: wired telecommunications carriers (5171); wireless telecommunications carriers – wireless (excluding satellite), paging, cellular and other wireless (5172); telecommunications resellers (5173); telecommunications distribution (5175); and other telecommunications (5179). Further information on NAICS can be found on the Census Bureau web site at http://www.census/gov/epcd/www/naics.html.

Table 5.1 and the associated graph show the information compiled by BLS for the annual average employment figures for the telecommunications industry – NAICS 517, as well as the industry distributions for wired telecommunications carriers – NAICS 5171, wireless telecommunications carriers – NAICS 5172, telecommunications resellers – NAICS 5173, and cable and other program distribution – NAICS 5175. Wireless telecommunications carriers' employees are further shown for cellular and other wireless carriers – NAICS 517212. Monthly employment data for these categories from 1990 to the present can be found on the BLS web site at www.bls.gov.

Table 5.2 and the associated graph show the information compiled by BLS for the labor productivity index for wired telecommunications carriers – NAICS 5171 and wireless telecommunications carriers – NAICS 5172. The BLS index of labor productivity relates output to the employee hours expended in producing that output.

Table 5.3 presents estimates of the number of telecommunications service providers that the Small Business Administration's Office of Size Standards defines as small businesses (i.e., 1,500 or fewer employees, including all affiliates).

[1] In the past, BLS compiled the data based on the Standard Industrial Classification (SIC) system. With the May 2003 data, the employment series underwent a complete industry reclassification, changing from the 1987 SIC system to the 2002 NAICS. Employment statistics from 1951 to 2002 based on the SIC system can be found in Table 5.1 of the Industry Analysis and Technology, Wireline Competition Bureau, *Trends in Telephone Service* (August 2003). The Labor Productivity Index for the telephone communications industry for the years 1951 to 2002 based on the SIC system can also be found in the August 2003 edition of *Trends* in Table 5.2.

Table 5.1

Annual Average Number of Employees in the Telecommunications Industry
(In Thousands)

Year	Telecom Carriers 517	Wired Telecom Carriers 5171	Wireless Telecom Carriers 5172	Cellular and Other Wireless Carriers 517212	Telecom Resellers 5173	Cable and Other Program Distribution 5175
1990	980.3	672.2	35.8	30.4	179.5	70.1
1991	973.1	662.7	41.8	35.4	178.1	71.3
1992	946.0	637.2	47.8	40.3	172.6	72.7
1993	942.2	624.5	56.3	47.4	170.5	75.8
1994	961.1	621.9	71.7	60.3	171.8	80.4
1995	975.7	611.1	90.3	75.9	171.2	86.6
1996	997.0	603.2	110.1	92.5	171.6	94.6
1997	1,059.5	629.9	132.1	111.0	181.3	96.9
1998	1,107.8	652.1	144.2	121.1	188.7	102.4
1999	1,179.7	688.1	160.0	134.3	200.2	110.9
2000	1,262.6	719.2	185.6	155.7	213.6	123.0
2001	1,302.1	732.2	201.4	171.0	214.1	129.2
2002	1,186.5	650.7	197.3	170.4	179.5	130.3
2003	1,082.3	579.2	189.8	166.9	154.9	132.5
2004	1,042.3 *p*	548.3 *p*	189.0 *p*	168.0 *p*	149.8 *p*	129.6 *p*

p - preliminary for annual 2004 as of March 2, 2005.

Source: Bureau of Labor Statistics.

Chart 5.1
Annual Average Number of Employees in the Telecommunications Industry
(In Thousands)

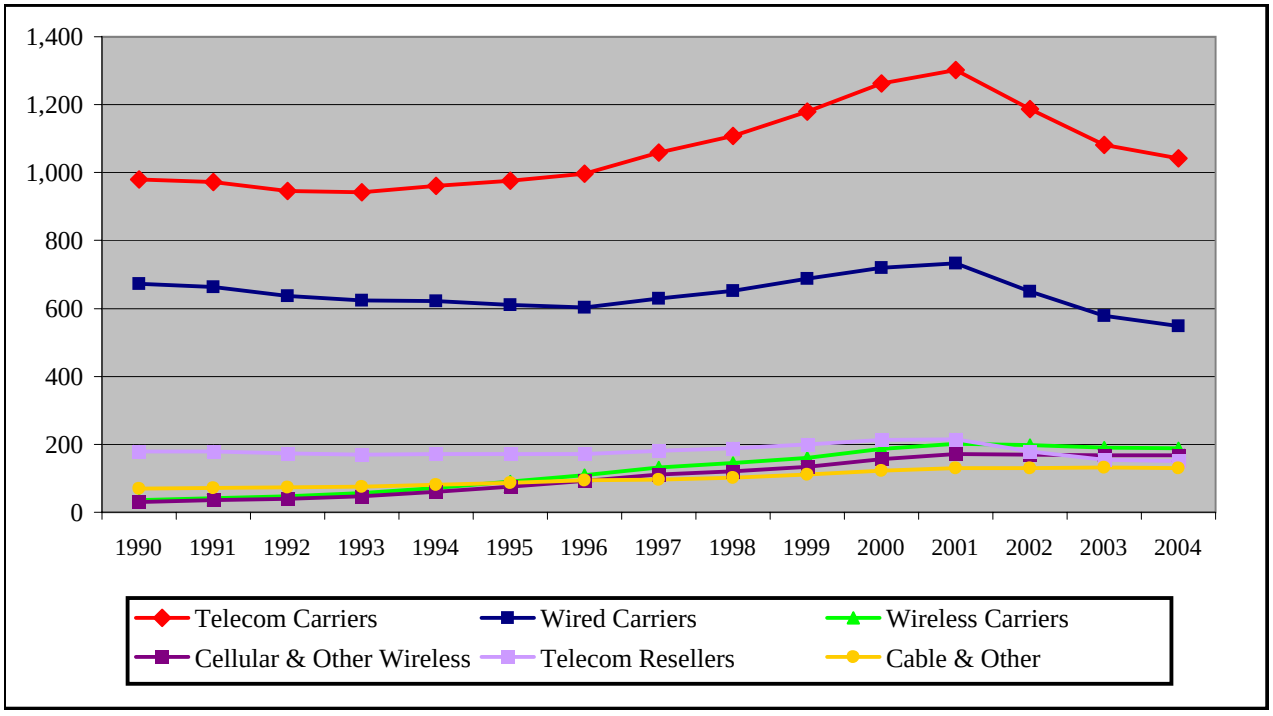


Table 5.2

Labor Productivity Index for the Wired and Wireless Telecommunications Industry Measured in Output per Hour (OPH) (Base Year 1997 = 100)

Year	Wired Carriers (NAICS 5171)	Wireless Carriers (NAICS 5172)
1987	56.1	77.7
1988	59.7	86.2
1989	63.3	79.6
1990	64.8	76.3
1991	68.4	73.8
1992	74.5	85.6
1993	79.7	94.8
1994	85.1	97.1
1995	90.6	98.3
1996	97.5	103.0
1997	100.0	100.0
1998	105.5	114.2
1999	112.7	134.3
2000	119.9	139.0
2001	121.0	172.7
2002	130.6	192.0

Source: Bureau of Labor Statistics as of September 10, 2004.

Chart 5.2

Wired and Wireless Telecommunications Carriers (NAICS 5171 and 5172) Labor Productivity Index

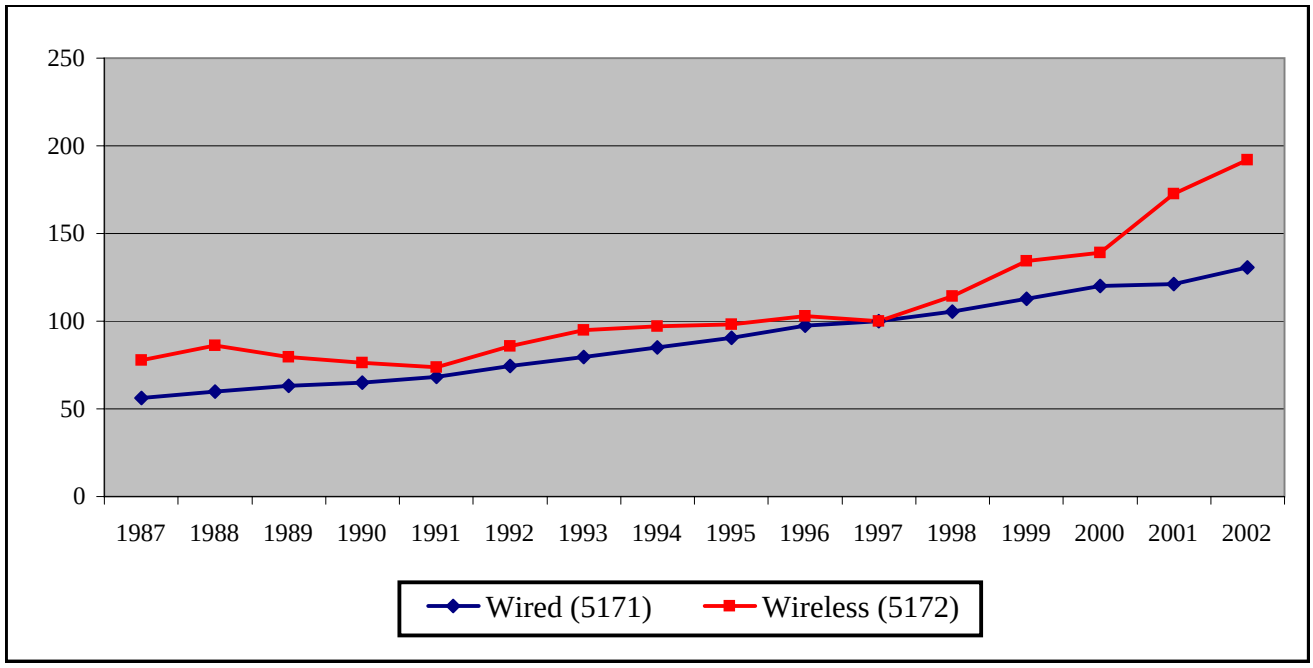


Table 5.3
Number of Telecommunications Service Providers by Size of Business
(As of October 1, 2004)

Type of Provider	Number of FCC Form 499-A Filers [1]	Filers that in Combination with Affiliates Have	
		1,500 or Fewer Employees [2]	More than 1,500 Employees [2]
Incumbent Local Exchange Carriers (ILECs)	1,303	1,020	283
Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs)	769	676	93
Local Resellers	143	141	2
Shared-Tenant Service Providers	12	12	0
Other Local Service Providers	39	38	1
Total Local Competitors	963	867	96
Total Fixed Local Service Providers	2,266	1,887	379
Payphone Service Providers	654	652	2
Private Service Providers	45	42	3
Wireless Telephony Including Cellular, Personal Communications Service (PCS) and SMR Telephony Carriers	437	260	177
Paging and Messaging Service Providers	375	370	5
Specialized Mobile Radio (SMR) Dispatch	167	167	0
Wireless Data and Other Mobile Service Providers	33	32	1
Total Wireless Service Providers	1,012	829	183
Interexchange Carriers (IXCs)	316	292	24
Operator Service Providers (OSPs)	23	20	3
Prepaid Calling Card Providers	89	88	1
Satellite Service Providers	43	40	3
Toll Resellers	770	747	23
Other Toll Carriers	65	64	1
Total Toll Service Providers	1,306	1,251	55
All Filers	5,283	4,661	622
Holding Company Analysis			
Filers without Affiliates:			
Holding Company Level	3,526	3,510	16
Filer Level	3,526	3,510	16
Filers with Affiliates [3]:			
Holding Company Level	419	382	37
Filer Level	1,757	1,151	606
Total, Holding Company Level	3,945	3,892	53
Total, Filer Level	5,283	4,661	622

Note: Estimates are based on gross revenue data filed on the 2004 FCC Form 499-A worksheets, and public employment data from ARMIS and Securities and Exchange Commission filings. Filers were considered affiliated based on information from their FCC Form 499-A filings. These estimates do not reflect affiliates that do not provide telecommunications service or that operate solely outside the United States.

[1] While FCC Form 499-A filings are not publicly available, filer registration information is published by the Industry Analysis and Technology Division (IATD) in the *Telecommunications Provider Locator* (March 2005), which can be accessed at www.fcc.gov/wcb/stats. This same information is searchable online at www.fcc.gov/wcb/iatd/locator.html.

[2] Employee counts are estimated at the holding company level, yet presented at the filer level. If our analysis indicates that, at the holding company level, a group of filers together employs more than 1,500 people, then each of the individual filers that comprise the holding company are entered in the column labeled as such. Therefore, our estimates **do not imply** that each or any of the individual filers alone employs more than 1,500 persons.

[3] In some cases, affiliated companies may file a single FCC Form 499A for all operations. Such consolidated filings are included in this category.

Source: FCC Form 499-A filings and IATD staff estimates.

6 International Telephone Service

International telecommunications has become an increasingly important segment of the telecommunications market. International telephone calling -- propelled by technological innovation, and increased international trade and travel -- has skyrocketed. The number of calls made from the United States to other countries increased from 200 million in 1980, to 1.4 billion in 1991, 5.3 billion in 1999, and by 2003, 7.4 billion. U.S. billed minutes increased about 76% over the last five years to 42.7 billion. Americans spent $8.9 billion on international calls in 2003. On average, carriers billed 21 cents per minute for international calls in 2003, a decline of 84% since 1980, and 60% since 1999. International private line revenues have also increased substantially since 1980. These trends are shown in Table 6.1. Chart 6.1 shows the trends in billed revenues per minute and per call since 1980.

U.S. and foreign carriers compensate each other when one carries traffic that the other bills. Since 1980, the number of calls billed in the United States increased at a faster pace than calls billed in foreign countries, contributing to rapid increases in net settlement payments to foreign carriers. These net payments from the United States to other countries were $2.8 billion in 2003. Trends in settlement payments are shown in Table 6.2.

International traffic data are available on a country-by-country basis. Table 6.3 summarizes traffic by region of the world. Five markets -- Canada, Mexico, the United Kingdom, Germany, and India -- currently account for about 37% of the international billed minutes in the United States. Chart 6.2 shows the percentage breakout for the five markets.

Since 1985, when MCI began to compete with AT&T for international calls, numerous carriers have begun to provide international service. Fifty-seven carriers provided international telecommunications service in 2003 by using their own facilities or lines leased from other carriers. These carriers provided $8.4 billion of international telephone service between the U.S. and foreign points, $620 million of international private line service, and $156 million other miscellaneous international services. Table 6.4 shows the U.S.-billed revenues for each of the 57 carriers. Together, AT&T, MCI, Inc., and Sprint, accounted for 88% of the international service billed in the United States.

In addition to the 57 carriers that owned or leased facilities, 703 carriers reported the resale of international message telephone service. These carriers reported $5.4 billion of resale revenues in 2003. The revenues of the fifty largest resellers are shown in Table 6.5.

The data compiled in Tables 6.1 - 6.5 are filed pursuant to section 43.61 of the Commission's rules. Preliminary data are filed July 31st of each year and final data are filed October 31st. Additional information can be found in a number of international reports on the Internet on the **FCC-State Link** web page at www.fcc.gov/wcb/stats.

Table 6.1
International Service from the United States
(Minute, Message, and Revenue Amounts Shown in Millions)

	Telephone Service					Other Services			
			Billed Revenues			Billed Revenues			
	Minutes	Messages	Total End-User [1]	Per Minute [2]	Per Call	Telex	Telegraph	Private Line	Misc. Services
1980	1,569	199	$2,097	$1.34	$10.53	$325	$63	$115	
1981	1,857	233	2,239	1.21	9.61	350	62	126	
1982	2,187	274	2,382	1.09	8.70	363	56	138	
1983	2,650	322	2,876	1.09	8.92	379	54	154	
1984	3,037	367	3,197	1.05	8.71	394	46	158	
1985	3,446	411	3,487	1.01	8.49	415	45	172	
1986	4,126	482	4,004	0.97	8.30	390	42	175	
1987	4,819	570	4,751	0.99	8.33	360	35	191	
1988	5,679	687	5,806	1.02	8.45	310	30	194	
1989	6,751	835	6,912	1.02	8.28	243	27	208	
1990	8,030	984	8,059	1.00	8.19	196	24	201	
1991	9,072	1,384	9,263	1.02	6.69	201	15	309	$23
1992	10,294	1,663	10,382	1.01	6.25	156	16	323	24
1993	11,513	1,945	11,564	1.00	5.95	136	12	366	23
1994	13,616	2,347	12,543	0.92	5.35	123	12	441	25
1995	15,889	2,830	14,335	0.90	5.07	120	6	514	48
1996	19,325	3,520	14,598	0.76	4.15	119	5	661	26
1997	22,753	4,259	15,661	0.69	3.68	110	4	851	28
1998	24,250	4,477	14,726	0.61	3.29	64	2	921	36
1999	28,515	5,305	14,980	0.53	2.82	57	2	1,216	31
2000	30,135	5,742	14,909	0.49	2.60	33	1	1,480	251
2001	33,287	6,265	11,380	0.34	1.82	10	*	1,419	199
2002	35,064	5,926	9,956	0.28	1.64	**	**	988	113
2003	42,664	7,350	8,944	0.21	1.22	**	**	620	156

Note: Data represent traffic and circuits from all U.S. points.

* Denotes revenues less than $500,000.

** Data not filed.

[1] Billed revenues in Table 6.1 differ from billed revenues in Table 6.3. The amounts shown here represent charges to end-user customers and equal the amounts billed by underlying carriers plus estimated reseller markups. The amounts shown in Table 6.3 are the amounts reported by the underlying carriers that carried the traffic to foreign destinations.

[2] Billed revenue per minute for international service differs in Table 6.1 and Table 13.3. Data in Table 6.1 are calculated using all U.S. billed minutes and revenues. Data for Table 13.3 represent charges for most U.S. billed calls that originate or terminate in the United States. International-to-international revenues and reorigination, country-beyond and country-direct minutes are not included in that table.

Source: International Bureau, *Trends in the International Telecommunications Industry* (July 2004).
Data for 2003 from International Bureau, *International Telecommunications Data* (January 2005).

Chart 6.1
Billed Revenues per Minute and per Call

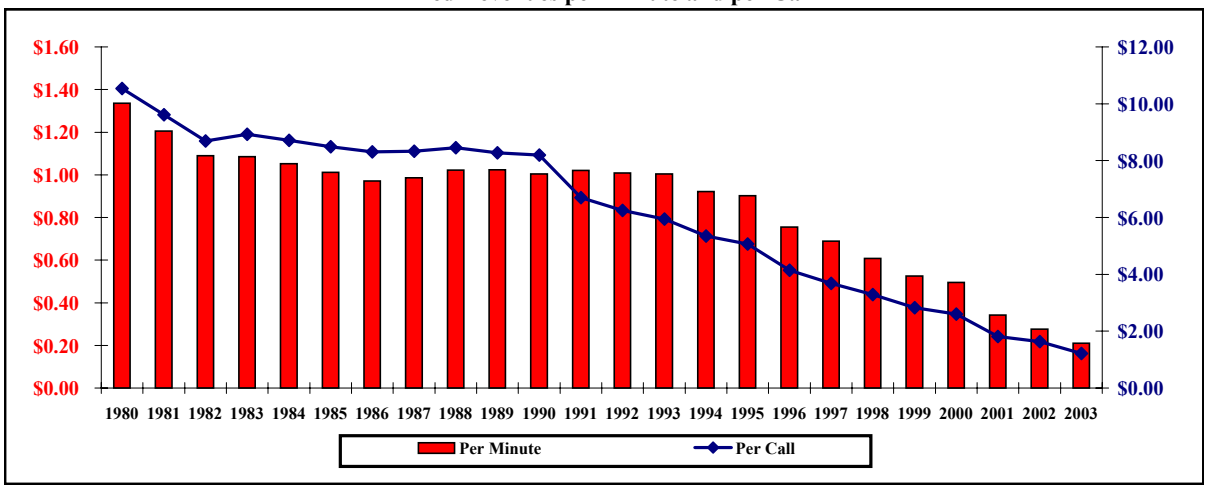


Table 6.2
International Telephone Service Settlements
(Revenue Amounts Shown in Millions)

	End-User Billed Revenues 1/	Owed to Foreign Carriers	Retained End-User Revenues 1/	Due from Foreign Carriers 2/	Net Settlements	Net End-User Revenues 1/	Average per Minute		
							Settlement Owed to Foreign Carriers for U.S. Billed Calls	Settlement Due from Foreign Carriers for Foreign Billed Calls	U.S. Carrier Net End-User Revenues All Traffic 3/
1980	$2,097	$1,063	$1,034	$716	($347)	$1,750	$0.68	0.62	$0.64
1981	2,239	1,330	910	799	(531)	1,708	0.72	0.56	0.52
1982	2,382	1,674	708	961	(712)	1,670	0.77	0.60	0.44
1983	2,876	2,036	841	1,086	(950)	1,926	0.77	0.60	0.43
1984	3,197	2,269	928	1,066	(1,203)	1,994	0.75	0.54	0.40
1985	3,487	2,398	1,089	1,243	(1,155)	2,332	0.70	0.55	0.41
1986	4,004	2,865	1,140	1,396	(1,469)	2,536	0.69	0.56	0.38
1987	4,751	3,423	1,328	1,671	(1,752)	2,999	0.71	0.59	0.39
1988	5,806	4,039	1,767	1,906	(2,133)	3,674	0.71	0.59	0.41
1989	6,912	4,735	2,177	2,213	(2,523)	4,390	0.70	0.58	0.42
1990	8,059	5,297	2,762	2,426	(2,871)	5,188	0.66	0.56	0.42
1991	9,263	5,852	3,411	2,536	(3,317)	5,946	0.65	0.51	0.42
1992	10,382	6,008	4,375	2,650	(3,357)	7,025	0.58	0.46	0.44
1993	11,564	6,372	5,192	2,667	(3,705)	7,859	0.55	0.43	0.44
1994	12,543	7,010	5,533	2,719	(4,291)	8,252	0.51	0.39	0.40
1995	14,335	7,569	6,766	2,631	(4,938)	9,397	0.48	0.35	0.40
1996	14,598	8,252	6,345	2,594	(5,658)	8,939	0.43	0.30	0.32
1997	15,661	8,031	7,630	2,602	(5,429)	10,232	0.35	0.27	0.31
1998	14,726	7,022	7,704	2,538	(4,484)	10,242	0.29	0.21	0.28
1999	14,980	6,383	8,597	1,782	(4,601)	10,379	0.22	0.15	0.26
2000	14,909	5,536	9,373	1,609	(3,927)	10,982	0.18	0.11	0.25
2001	11,380	4,526	6,854	1,181	(3,346)	8,034	0.14	0.08	0.17
2002	9,956	3,733	6,223	892	(2,842)	7,114	0.11	0.05	0.14
2003	8,944	3,649	5,295	873	(2,777)	6,167	0.09	0.04	0.10

Note: Data represent traffic to and from all U.S. points.

1/ Billed revenues in Table 6.2 differ from billed revenues in Table 6.3. The amounts shown here represent charges to end-user customers and equal the amounts billed by underlying carriers plus estimated markups, where service was provided through resellers. The amounts shown in Table 6.3 are the amounts reported by the underlying carriers. Similar differences exist for retained end-user and net revenues.

2/ Beginning in 1991, includes net settlement receipts for transiting traffic.

3/ Beginning in 1991, includes transiting traffic.

Source: International Bureau *Trends in the International Telecommunications Industry* (July 2004).
Data for 2003 from International Bureau, *International Telecommunications Data* (January 2005).

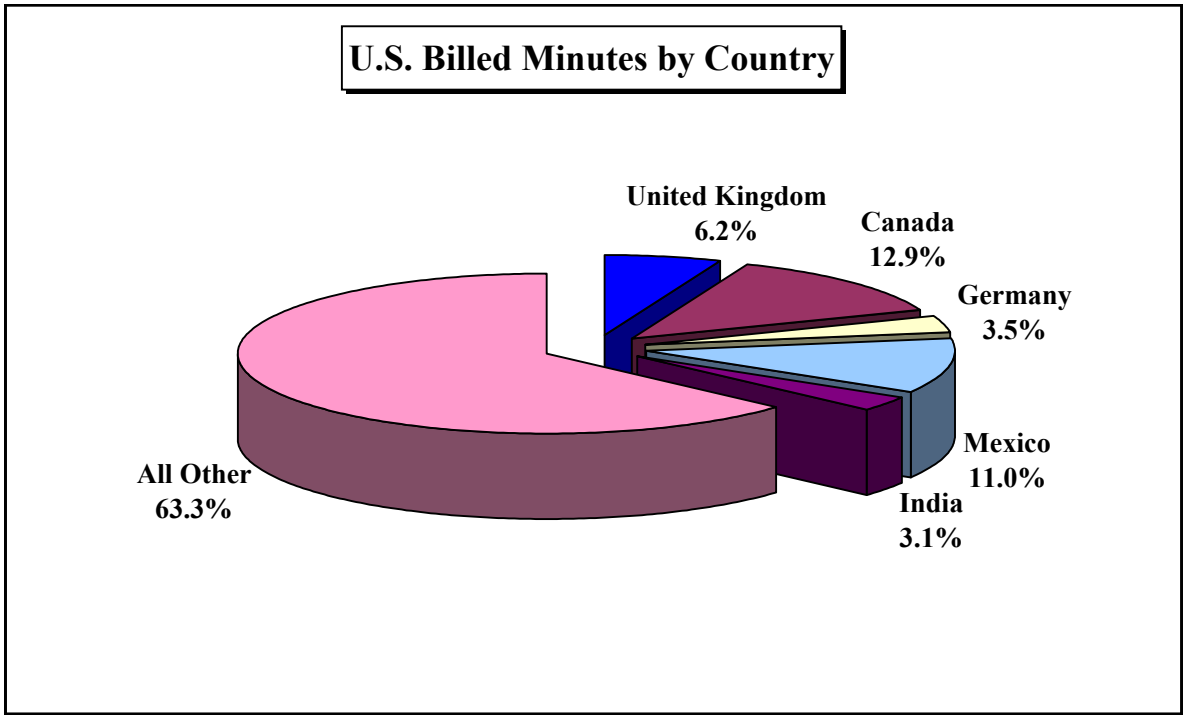
Table 6.3
International Message Telephone Service for 2003
(Figures Rounded to the Nearest Million)

Region of the World [1]	Traffic Billed in the United States					Traffic Billed in Foreign Countries				Total U.S. Carrier
						Originating or Terminating in the United States			Transiting	
	Number of Messages	Number of Minutes	U.S. Carrier Revenues	Owed to Foreign Carriers	Retained Revenues	Number of Messages	Number of Minutes	Due from Foreign Carriers	Retained Revenues	Retained Revenues
Africa	381	2,077	$441	$283	$158	56	219	$9	$4	$171
Asia	1,230	7,356	1,632	831	800	373	1,993	139	7	946
Caribbean	414	2,329	551	257	294	140	534	33	2	329
Eastern Europe	380	2,087	353	177	175	34	148	5	3	183
Middle East	341	1,564	393	153	240	85	432	13	2	255
North and Central America	1,858	13,497	2,122	930	1,192	1,867	6,891	279	10	1,481
Oceania	151	895	237	66	171	61	397	14	2	186
Other Regions	1	4	5	4	1	*	*	*	*	1
South America	479	4,122	666	296	370	150	796	45	8	423
Western Europe	2,111	8,723	2,001	650	1,350	841	4,252	130	166	1,646
Total for Foreign Points	7,322	42,467	8,358	3,637	4,721	3,584	15,519	657	203	5,582
Total for U.S. Points	28	197	44	13	31	24	155	12	*	43
Total for All International Points	7,350	42,664	$8,402	$3,649	$4,752	3,608	15,674	$669	$204	$5,625

* Denotes values that are less than half a million.

[1] The region totals include all international traffic reported by carriers serving domestic U.S. points including Guam and the U.S. Virgin Islands. Most traffic between Guam, the U.S. Virgin Islands, American Samoa and Northern Mariana Islands and other U.S. points are shown separately as the total for U.S. points, and also are included in the total for all international points. The total for all international points also includes all traffic originating in American Samoa and the Northern Mariana Islands, which is excluded from the region totals.

Chart 6.2



Source: International Bureau, *2003 International Telecommunications Data* (January 2005).

Table 6.4
U.S. Billed Revenues of Facilities-Based and Facilities-Resale Carriers in 2003 1/
(Revenue Amounts Shown in Millions)

	International Service			Total International Billed Revenues
	Telephone	Private Line	Miscellaneous	
ABS-CBN Telecom North America, Inc.	$3			$3
American Samoa Telecomm. Authority	2			2
American Tower Corporation/Verestar, Inc.		$15		15
Americatel, Inc.	44			44
AT&T Corp. & Concert Global Ntwks. USA LLC	4,298	200		4,498
Bestel USA Inc.	24			24
Cable & Wireless Americas Operations, Inc.		*		*
Centennial Puerto Rico Operations Corp.	4			4
Cinergy Telecommunications, Inc.			7	7
Colt Telecommunications		5		5
DataAccess Ltd.	24			24
France Telecom Long Distance USA, LLC	9		*	9
Geocomm Corporation		*		*
GNG Networks America, Inc.		*		*
Hanaro Telecom America, Inc.		1		1
Harris Corporation/MCS	1			1
IDT Corporation	327			327
IMPSAT USA, Inc.		20		20
Intelsat USA License Corp.		10		10
International Access d/b/a Access Int'l.	22			22
IT&E Overseas, Inc.	7	2		9
Japan Telecom America, Inc.		8		8
KDDI America, Inc.	9	14		22
KGM Circuit Solutions, LLC		*		*
KPN-INS, Inc.	16			16
Level 3 Communications, LLC		8		8
Lockheed Martin Corporation		64		64
MCI, Inc.	1,766	144		1,910
Medley International Teleport, Inc.			1	1
Melbourne Teleport, Inc.			*	*
NDNT, Inc.		1		1
Norlight Telecommunications, Inc.		*		*
NTT America, Inc.		13		13
ONSEnet America,Inc.		1		1
Orbitel S.A. E.S.P.	8	3		11
Philippine Long Distance Telephone Co., Ltd.	18	2		20
Primus Telecommunications, Inc.	147			147
Qwest Services Corporation		29		29
Reach Services USA	9	10		18
Reliance Communications, Inc.	21	*		21
Satellite Communication Systems, Inc.	*	1		1
Singapore Telecom USA, Inc.	21	4		25
Sprint	1,479	59	132	1,670
Startec Global Communications Corporation	11			11
Swisscom North America		2		2
Telecom Argentina USA, Inc.	6			6
Telecom Italia North America, Inc.	77			77
Telecomunicaciones Ultramarinas-Puerto Rico		*		*
Telefonica Larga Distancia, Inc. (TLD)	5	*		5
Telenor Global Services AS	4			4
Teleport of the Americas, Inc.			*	*
Telstra Incorporated		3		3
Threshold Communications, Inc.		*		*
UniPlex Telecom Technologies, Inc.	*		9	9
V-SAT Telecom, Inc.		*		*
Viatel Holding (Bermuda) Limited		*		*
WilTel Communications, LLC	42		7	49
Total All Carriers 2/	$8,402	$620	$156	$9,178 3/

* Represents revenues greater than $0 but less than $500,000.

1/ Totals exclude pure resale services. Data do not show settlement receipts for terminating foreign billed traffic.

2/ Includes $22 million of revenues reported for American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands. Also includes $43 million of revenues for calls between the domestic United States and these points.

3/ Includes $550 million of telephone, private line, and miscellaneous service revenues for 18 carriers that requested confidential treatment.

Source: International Bureau, *2003 International Telecommunications Data* (January 2005).

Table 6.5
Top Providers of Pure Resale International MTS in 2003

	Number of Messages (Millions)	Number of Minutes (Millions)	U.S. Carrier Revenues ($ Millions)	Percent of Total IMTS Resale Revenues
Acceris Communications	31	374	$94	1.74 %
ACN Communication Services, Inc.	2	14	8	0.14
ALLTEL Corporation	3	24	7	0.12
Americatel, Inc.	88	760	52	0.96
AT&T Corp.	197	975	466	8.60
Broadwing, Inc.	87	365	44	0.81
Capsule Communications, Inc.	6	43	6	0.11
Cingular Wireless	22	103	70	1.29
Citizens Communications Company	6	26	6	0.11
Comcast	28	284	32	0.58
Cox Communications, Inc.	6	49	18	0.32
Deutsche Telekom AG	20	111	52	0.95
Dialaround Enterprises, Inc.	3	39	8	0.15
Dollar Phone Corp.	18	163	8	0.15
Global Crossing, Ltd	127	533	401	7.40
Gold Line Telemangement, Inc.	12	1,651	6	0.11
Grande Communications	16	180	10	0.19
IDT Corporation	727	7,721	825	15.22
Intellicall Operator Services, Inc.	2	17	7	0.13
Interactive Media Technologies, Inc.	5	70	6	0.11
ITC Holding Company, Inc.	6	22	5	0.09
Long Distance of Michigan, Inc. d/b/a LDMI Telecommunications & also Fonetel	4	38	8	0.15
MCI, Inc.	358	2,400	285	5.25
McLeodUSA Incorporated	13	37	8	0.15
NECC Telecom, Inc.	5	42	6	0.11
Network Communications International Corporation	0	2	8	0.15
NobelTel, LCC	20	111	8	0.15
NOS Communications, Inc.	11	99	20	0.36
PaeTec Communications, Inc.	12	50	12	0.23
PT-1 Long Distance, Inc.	27	265	48	0.88
Puerto Rico Telephone	3	18	10	0.18
Qwest Communications International, Inc.	16	105	21	0.40
RNK, Inc. d/b/a RNK Telecom	4	29	13	0.24
Sprint Corporation	144	621	169	3.11
Startec Global Communications Corporation	25	168	27	0.50
Talk America Inc.	9	60	21	0.39
Telco Group Inc.	241	2,534	411	7.59
Telecom Italia of North America, Inc.	124	470	39	0.71
TeleDirect Telecommunications Group, LLC	50	217	21	0.39
Time Warner Telecom, Inc.	1	7	5	0.10
Transcom Communications, Inc.	7	92	6	0.10
United States Cellular Corporation	4	17	8	0.14
VarTec Telecom Holding	28	693	56	1.04
Verizon Communications, Inc.	89	495	140	2.57
Vertex Group, Inc.	80	851	45	0.83
WDT World Discount Telecommunications Company	19	172	18	0.34
Western Wireless International Enterprises, Inc.	13	56	8	0.14
WilTel Communications, LLC	804	3,497	250	4.62
Working Assets Funding Services, Inc.	3	32	14	0.25
Z-Tel Communications, Inc.	3	17	6	0.11
Total for 22 Companies Requesting Confidential Treatment	1,227	6,689	1,423	26.25
Total for 626 Companies Not Shown Above 1/	268	1,106	177	3.26
Total for all Reporting Carriers	5,027	34,510	$5,420	100.00 %

1/ Data are consolidated for affiliated carriers. A total of 698 companies made a total of 748 filings.

Source: International Bureau, *2003 International Telecommunications Data* (January 2005).

7 Lines

Within the telephone industry there are several alternative, but closely related, definitions of telephone lines or loops. While these differences often make it difficult to reconcile data from different statistical series, they are not usually large enough to affect comparisons among companies or trends over time. Since 1970, over 90% of households and virtually all businesses have subscribed to telephone service. Until 2000, line growth over time, averaging about 3% per year, has historically reflected growth in the population and the economy. Since then, the number of lines provided by wireline carriers has declined, likely due to some consumers substituting wireless service for wireline service, and some households eliminating second lines when they move from dial-up Internet service to broadband service.

Table 7.1 shows the nation's total number of telephone lines using three alternative measures. The first measure is the number of end-user switched access lines for both incumbent local exchange carriers (ILECs) and competitive local exchange carriers (CLECs) as reported to the Commission on the FCC Form 477. These totals undercount lines by a small amount because carriers with less than 10,000 lines in a state are not required to file the FCC Form 477. The second measure is the number of local loops, which is a way of counting lines that is used to determine the amount of high-cost universal service support provided to eligible telecommunications carriers. The number of local loops includes end-user access lines, lines resold to other carriers and UNE loops with switching. This measure excludes CLEC lines provided over their own facilities. The third measure, access lines, represents estimates for the whole ILEC industry based on data filed with the Commission by large ILECs through the Automated Reporting Management Information System (ARMIS). A substantial number of ILEC lines provided to CLECs as UNE-P lines in 2001 - 2003 are not included in this ARMIS data.

Table 7.2 shows the number of local exchange operating areas (study areas – company's operations in one state) and loops in each state, and shows breakdowns by loops for price-cap and average-schedule companies[1]. Table 7.3 shows the number of loops by holding companies, and Chart 7.1 shows the five largest holding companies' share of loops.

Table 7.4 compares residential local loops with the number of households with telephone service. Before 2001, the difference between these series was an approximate measure of the number of non-primary residential lines. However, beginning in 2001, a significant number of households started replacing wireline service with wireless service, requiring an adjustment be made to account for wireless only households. Table 7.4 shows that the number of non-primary residential lines grew dramatically from 2.3 million in 1988 to 26.3 million in 2001 and then

[1] Average schedule companies have been permitted by the Commission to estimate their access settlements and universal service support through the use of average schedules to avoid the difficulties and expenses involved with conducting company-specific cost studies.

decreased back to 16.0 million in 2003.

Tables 7.5 and 7.6 display payphone line information. Long distance carriers are required to pay payphone owners 49 cents for every completed dial-around call (calls where the consumer chooses the long distance carrier over the payphone's presubscribed long distance carrier).[2] Because of this requirement, several long distance carriers employ the National Payphone Clearinghouse to administer payments on their behalf. On an annual basis, the National Payphone Clearinghouse[3] supplies the FCC with data that allow the number of payphones in each state to be calculated.

Table 7.5 shows the number of payphones owned by LECs and by independent payphone operators in each state at the end of the first quarter of 2004. The number of payphones is broken down by whether the payphones are served by an RBOC or by another LEC. Payphones located in RBOC territories but that are served by a CLEC are accounted for in the RBOC territories columns. Similarly, payphones located in non-RBOC territories (i.e., other ILEC territories) but that are served by a CLEC are accounted for in the all other LEC territories columns. Data for earlier years can be found in earlier editions of *Trends.*

Table 7.6 shows the number of payphones over time. The National Payphone Clearinghouse began providing detailed data to the Commission starting with data as of March 31, 1999. Where possible, data from the payphone proceedings were used to fill values for 1997 and 1998 (see the footnotes to Table 7.6 for citations).

[2] See *Report and Order*, CC Docket 03-225, adopted Jul. 27, 2004.

[3] Further information on the National Payphone Clearinghouse can be found at https://www.npc.cc/home.aspx.

Table 7.1
U.S. Wireline Telephone Lines

Year End	CLEC and ILEC Lines [1]	Annual Growth (%)	ILEC Local Loops [2]	Annual Growth (%)	ILEC Access Lines [3]	Annual Growth (%)
1980			102,216,367			
1981			105,559,222	3.3 %		
1982			107,519,214	1.9		
1983			110,612,689	2.9		
1984			112,550,739	1.8	113,832,113	
1985			115,985,813	3.1	117,384,865	3.1 %
1986			118,289,121	2.0	120,730,205	2.8
1987			122,789,249	3.8	124,625,693	3.2
1988			127,086,765	3.5	126,899,632	1.8
1989			131,504,568	3.5	130,860,026	3.1
1990			136,114,201	3.5	134,685,732	2.9
1991			139,412,884	2.4	139,613,309	3.7
1992			143,341,581	2.8	142,367,463	2.0
1993			148,106,159	3.3	147,033,132	3.3
1994			153,447,946	3.6	151,543,061	3.1
1995			159,658,662	4.0	158,152,644	4.4
1996			166,445,580	4.3	165,350,308	4.6
1997			173,866,799	4.5	173,857,193	5.1
1998			179,849,045	3.4	180,516,161	3.8
1999	189,501,938		185,002,911	2.9	186,594,497	3.4
2000	192,512,938	1.6 %	188,499,632	1.9	187,581,092	0.5
2001	191,697,023	-0.4	185,587,229	-1.5	179,811,283	-4.1
2002	189,389,840	-1.2	180,098,691	-3.0	172,265,210	-4.2
2003	183,042,370	-3.4	173,136,837	-3.9	162,497,356	-5.7

NA - Not Available.

[1] Include end-user switched access lines for competitive local exchange carriers (CLECs) and incumbent local exchange carriers (ILECs) as reported in the FCC Form 477. Carriers with greater than 10,000 lines in a state are required to report.

[2] Include end-user switched access lines, resold lines, and UNE-P lines.

[3] Beginning in 2001, a substantial number of ILEC lines provided to CLECs as UNE-P lines are not included in this total.

Source: CLEC and ILEC access lines: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of June 30, 2004* (December 2004).
Local loops: National Exchange Carrier Association, Universal Service Fund filings.
Access Lines: Industry Analysis and Technology Division, Wireline Competition Bureau, *Statistics of Communications Common Carriers,* 2003/2004 Edition (October 2004), Table 4.10, after inflating access lines of reporting carriers to represent the total industry. The 1996 adjustment factor was used for the years prior to 1996.

Table 7.2
Telephone Loops of Incumbent Local Exchange Carriers by State
(As of December 31, 2003)

		Price Cap		Non-Price Cap		
	Study Areas	Bell Company Loops [1]	Other Company Loops	Average Schedule Company Loops [2]	Other Company Loops	Total Loops
Alabama	28	1,834,337	308,319	31,057	173,274	2,346,987
Alaska	24	0	0	237	438,868	439,105
American Samoa	1	0	0	0	10,766	10,766
Arizona	17	2,538,831	165,471	0	41,033	2,745,335
Arkansas	28	953,638	0	15,337	446,085	1,415,060
California	22	21,519,678	154,548	0	220,858	21,895,084
Colorado	28	2,571,726	0	1,104	134,025	2,706,855
Connecticut	2	2,204,505	0	25,339	0	2,229,844
Delaware	1	564,508	0	0	0	564,508
District of Columbia	1	832,290	0	0	0	832,290
Florida	12	8,499,112	2,067,852	0	193,149	10,760,113
Georgia	36	3,897,165	31,544	68,102	806,105	4,802,916
Guam	1	0	0	0	67,194	67,194
Hawaii	2	686,495	0	0	1,106	687,601
Idaho	20	657,598	21,579	1,722	45,548	726,447
Illinois	57	7,277,042	126,384	37,959	217,474	7,658,859
Indiana	42	3,181,311	277,036	74,465	87,763	3,620,575
Iowa	153	1,028,347	332,085	195,542	52,621	1,608,595
Kansas	39	1,224,632	133,430	439	125,562	1,484,063
Kentucky	19	1,147,905	735,190	71,599	131,613	2,086,307
Louisiana	20	2,196,551	0	1,649	189,805	2,388,005
Maine	20	698,325	0	37,574	113,870	849,769
Maryland	2	3,733,450	0	0	7,716	3,741,166
Massachusetts	3	3,980,560	0	0	4,145	3,984,705
Michigan	39	5,733,930	25,411	28,097	175,101	5,962,539
Minnesota	88	2,004,934	432,308	241,212	170,389	2,848,843
Mississippi	19	1,278,863	6,707	11,230	80,162	1,376,962
Missouri	44	2,478,864	580,971	10,986	315,874	3,386,695
Montana	18	347,382	8,285	4,049	164,163	523,879
Nebraska	40	395,465	346,995	20,141	87,803	850,404
Nevada	14	411,453	869,650	0	33,065	1,314,168
New Hampshire	10	726,497	0	2,388	55,380	784,265
New Jersey	3	6,095,951	221,709	0	9,993	6,327,653
New Mexico	16	818,870	102,422	0	45,817	967,109
New York	44	10,858,329	856,898	21,220	263,470	11,999,917
North Carolina	26	2,708,921	1,401,055	252,537	479,238	4,841,751
North Dakota	23	189,857	0	62,335	112,836	365,028
Northern Mariana Islands	1	24,047	0	0	0	24,047
Ohio	42	4,814,284	1,406,942	56,901	380,978	6,659,105
Oklahoma	39	1,469,349	114,764	4,148	238,535	1,826,796
Oregon	33	1,762,180	86,322	12,135	143,319	2,003,956
Pennsylvania	36	6,372,575	426,590	618,408	254,846	7,672,419
Puerto Rico	2	0	0	0	1,242,555	1,242,555
Rhode Island	1	549,546	0	0	0	549,546
South Carolina	26	1,624,437	97,295	59,913	472,432	2,254,077
South Dakota	30	219,501	0	69,393	81,433	370,327
Tennessee	25	2,496,477	342,824	114,663	252,081	3,206,045
Texas	58	10,730,120	724,521	10,503	574,421	12,039,565
Utah	13	994,767	23,957	7,931	64,452	1,091,107
Vermont	10	349,788	0	4,648	60,038	414,474
Virgin Islands	1	0	0	0	69,691	69,691
Virginia	21	3,950,936	398,761	92,117	26,835	4,468,649
Washington	24	3,173,034	83,122	4,597	265,004	3,525,757
West Virginia	10	821,887	157,084	1,586	15,403	995,960
Wisconsin	90	2,338,412	70,830	217,189	599,199	3,225,630
Wyoming	10	244,238	6,798	0	44,733	295,769
Total	1,434	147,212,900	13,145,659	2,490,452	10,287,826	173,136,837

[1] Includes loops owned by Verizon/GTE and SBC/Southern New England Telephone. Excludes Woodbury Telephone of Connecticut, affiliated with SBC, 25,339 average schedule company loops. Also excludes Puerto Rico Telephone Company, affiliated with Verizon, 1,242,555 rate of return lines.

[2] Average schedule companies have been permitted by the Commission to estimate their access settlements and universal service support through the use of average schedules to avoid the difficulties and expenses involved with conducting company-specific cost studies

Source: NECA, *Universal Service Fund 2004 Submission of 2003 Study Results* (October 1, 2004).

Table 7.3
Telephone Loops of Incumbent Local Exchange Carriers by Holding Company[1]
(As of December 31, 2003)

Holding Companies	Loops	Percent of Loops
Verizon Communications Inc.	55,675,974	32.16 %
SBC Communications, Inc	54,373,692	31.41
BellSouth Telecommunications, Inc	22,914,563	13.23
Qwest Communications International, Inc	15,516,565	8.96
Sprint Corporation	7,631,693	4.41
ALLTEL Corporation	2,832,983	1.64
CenturyTel, Inc.	2,344,028	1.35
Citizens Communications Compan	2,248,570	1.30
Cincinnati Bell	938,397	0.54
TDS Telecommunications Corporatio	681,438	0.39
Valor Communications Group, Inc	549,093	0.32
Commonwealth Telephone Enterprises, Inc	338,666	0.20
Alaska Communications System	303,411	0.18
Iowa Network Services, Inc.	275,150	0.16
FairPoint Communications, Inc	245,933	0.14
Consolidated Communications, Inc	244,540	0.14
Madison River Telephone Company, LL(	181,459	0.10
D&E Communications, Inc	144,577	0.08
Rock Hill Telephone Company	144,539	0.08
SureWest Communication	133,707	0.08
North State Communications Corporatio	127,044	0.07
The Concord Telephone Company	116,761	0.07
Horry Telephone Cooperative, Inc.	93,974	0.05
North Pittsburgh Telephone Company	76,736	0.04
Hargray Communications Group, Inc	74,066	0.04
Innovative Communications Corporatio	69,691	0.04
Guam Telephone Authority	67,194	0.04
Hickory Tech Corporation	63,152	0.04
Matanuska Telephone Association, Inc	62,740	0.04
Farmers Telephone Cooperative, Inc	59,737	0.03
Pioneer Telephone Cooperative, Inc	54,429	0.03
Lynch Interactive Corporation	54,094	0.03
NTELOS, Inc.	48,167	0.03
Golden West Telecommunication	47,310	0.03
SRT Communications, Inc	44,931	0.03
Guadalupe Valley Telephone Cooperative, Inc	42,031	0.02
Atlantic Telephone Membership Corporatio	41,068	0.02
EATELCORP, Inc.	38,882	0.02
Twin Lake Telephone Cooperative	38,827	0.02
Skyline Telephone Membership Corporatio	37,540	0.02
Ben Lomand Rural Telephone Cooperative, Inc	36,713	0.02
The Chillicothe Telephone Company	36,446	0.02
All Other Companies	4,086,326	2.36
Total	173,136,837	100.00 %

[1] Includes incumbent local exchange carriers' loops for holding companies with more than 35,000 loops.

Source: NECA, *Universal Service Fund 2004 Submission of 2003 Study Results* (October 1, 2004).

Chart 7.1
Five Largest Holding Companies' Share of Loops

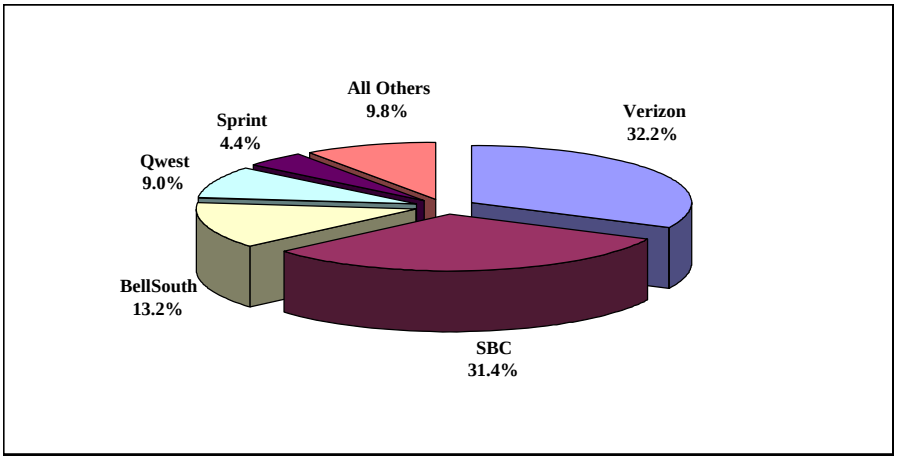


Table 7.4
Additional Residential Lines
For Households with Telephone Service
(End-of-Year Data in Millions)

Year	Wireline Loops [1]			Households with Telephone Service [2]	Households with Wireless Only	Primary Residential Lines	Non-Primary Residential Lines
	Residential	Non-Residential	Total Loops				
1988	87.7	38.5	126.2	85.4		85.4	2.3
1989	90.0	40.6	130.6	87.4		87.4	2.6
1990	92.2	42.9	135.1	88.4		88.4	3.9
1991	95.9	42.5	138.4	89.4		89.4	6.5
1992	99.3	43.0	142.3	91.0		91.0	8.3
1993	101.8	45.2	147.0	93.0		93.0	8.8
1994	105.1	47.2	152.3	93.7		93.7	11.4
1995	108.1	50.4	158.5	94.2		94.2	13.9
1996	111.1	54.3	165.4	95.1		95.1	16.0
1997	114.7	58.2	172.9	96.5		96.5	18.2
1998	117.1	62.6	179.8	98.0		98.0	19.1
1999	122.7	63.5	186.2	99.1		99.1	23.6
2000	126.4	65.8	192.2	100.2		100.2	26.2
2001	127.3	62.8	190.1	102.2	1.2	101.0	26.3
2002	120.5	64.5	185.0	104.0	1.8	102.1	18.4
2003	118.1	60.6	178.7	107.1	5.0	102.1	16.0

[1] Loop counts provided by the National Exchange Carrier Association. American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands totals have been removed. Total loops were divided between residential and non-residential using the ratio of residential to non-residential access lines reported in Industry Analysis and Technology Division, Wireline Competition Bureau, *Statistics of Communications Common Carriers* . Those totals also exclude Puerto Rico, but cover only the carriers that file ARMIS reports (of which there are none for American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands). Loop counts beginning in 1996 have been increased by estimated competitive local exchange carrier lines from the Association for Local Telecommunications Services (now known as Comptel/ALTS) and the report by the Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of June 30, 2004* (December 2004). Beginning in 2001 a significant number of households began to have wireless service. The estimate of this amount for 2001 is from the November 2001 *Currently Population Survey.* Beginning in 2002, the numbers of primary and non-primary residential lines for households with telephones was estimated using the ratio of primary (Lifeline and Non-Lifeline) to non-primary residential access lines reported in Table 2.4 of *Statistics of Communications Common Carriers,* and the estimate of wireless-only is based on the difference between households with phone service and estimated primary residential lines.

[2] *Current Population Survey* (U.S. Department of Commerce, U.S. Census Bureau).

Source: FCC staff estimates.

Table 7.5
Number of Payphones Owned by LECs and Independent Operators
(As of March 31, 2004)

State	RBOC Territories		All Other LEC Territories		Total		Grand Total
	LEC Owned	Independent	LEC Owned	Independent	LEC Owned	Independent	
Alabama	599	7,722	1,335	1,275	1,934	8,997	10,931
Alaska	0	0	1,040	2,755	1,040	2,755	3,795
Arizona	13,528	9,719	784	1,365	14,312	11,084	25,396
Arkansas	7,430	1,028	1,926	937	9,356	1,965	11,321
California	97,237	87,077	1,433	1,300	98,670	88,377	187,047
Colorado	12,738	6,738	240	590	12,978	7,328	20,306
Connecticut	14,903	2,776	0	0	14,903	2,776	17,679
Delaware	3,278	797	0	0	3,278	797	4,075
District of Columbia	5,390	984	0	0	5,390	984	6,374
Florida	9,944	33,053	6,790	7,019	16,734	40,072	56,806
Georgia	3,126	17,659	3,126	3,080	6,252	20,739	26,991
Hawaii	5,711	744	0	0	5,711	744	6,455
Idaho	2,793	1,361	253	117	3,046	1,478	4,524
Illinois	44,005	19,616	1,278	1,002	45,283	20,618	65,901
Indiana	20,345	5,618	1,744	958	22,089	6,576	28,665
Iowa	5,512	1,598	677	943	6,189	2,541	8,730
Kansas	6,923	1,773	556	609	7,479	2,382	9,861
Kentucky	1,156	6,188	3,433	2,969	4,589	9,157	13,746
Louisiana	1,595	9,754	274	971	1,869	10,725	12,594
Maine	4,203	536	84	348	4,287	884	5,171
Maryland	23,841	6,388	0	9	23,841	6,397	30,238
Massachusetts	24,648	9,324	5	4	24,653	9,328	33,981
Michigan	32,261	15,222	764	829	33,025	16,051	49,076
Minnesota	9,644	3,434	2,118	1,130	11,762	4,564	16,326
Mississippi	714	6,112	109	175	823	6,287	7,110
Missouri	14,396	4,189	3,002	2,753	17,398	6,942	24,340
Montana	2,339	1,056	492	609	2,831	1,665	4,496
Nebraska	2,668	1,274	3,093	705	5,761	1,979	7,740
Nevada	2,498	1,243	1,572	8,388	4,070	9,631	13,701
New Hampshire	3,962	1,392	130	32	4,092	1,424	5,516
New Jersey	45,701	15,305	1,412	185	47,113	15,490	62,603
New Mexico	4,898	2,287	277	805	5,175	3,092	8,267
New York	90,804	40,784	3,126	1,875	93,930	42,659	136,589
North Carolina	2,515	10,408	7,003	7,144	9,518	17,552	27,070
North Dakota	474	285	134	339	608	624	1,232
Ohio	30,280	8,171	8,620	3,331	38,900	11,502	50,402
Oklahoma	10,870	3,641	1,306	689	12,176	4,330	16,506
Oregon	8,731	4,726	765	857	9,496	5,583	15,079
Pennsylvania	36,151	16,392	6,360	2,750	42,511	19,142	61,653
Rhode Island	3,377	2,536	0	0	3,377	2,536	5,913
South Carolina	1,922	9,834	1,401	2,048	3,323	11,882	15,205
South Dakota	1,935	446	479	212	2,414	658	3,072
Tennessee	1,938	11,948	2,130	1,767	4,068	13,715	17,783
Texas	51,484	37,776	2,027	4,614	53,511	42,390	95,901
Utah	5,643	1,902	213	331	5,856	2,233	8,089
Vermont	2,041	283	3	123	2,044	406	2,450
Virginia	23,657	11,192	1,989	1,706	25,646	12,898	38,544
Washington	15,946	7,527	568	1,575	16,514	9,102	25,616
West Virginia	6,036	849	658	459	6,694	1,308	8,002
Wisconsin	13,265	4,255	3,670	1,925	16,935	6,180	23,115
Wyoming	2,091	584	243	98	2,334	682	3,016
Totals	737,146	455,506	78,642	73,705	815,788	529,211	1,344,999

Source: Raw data provided by National Payphone Clearinghouse. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau.

Table 7.6
Number of Payphones Over Time
(As of March 31 of Each Year)

Year	RBOCs' Territories			All Other LECs' Territories			Total		Grand Total
	LEC Owned	Independent	Total	LEC Owned	Independent	Total	LEC Owned	Independent	
1997	1,399,600 [1]	NA	NA	NA	NA	NA	NA	NA	2,086,540 [2]
1998	1,381,800 [1]	NA	NA	NA	NA	NA	NA	NA	2,100,558 [2]
1999	1,305,463	572,503	1,877,966	80,491	163,069	243,560	1,385,954	735,572	2,121,526
2000	1,244,535	633,022	1,877,557	63,808	122,353	186,161	1,308,343	755,375	2,063,718
2001	1,131,377	571,778	1,703,155	88,399	128,086	216,485	1,219,776	699,864	1,919,640
2002	964,999	531,801	1,496,800	95,639	118,622	214,261	1,060,638	650,423	1,711,061
2003	854,295	464,479	1,318,774	75,885	101,127	177,012	930,180	565,606	1,495,786
2004	737,146	455,506	1,192,652	78,642	73,705	152,347	815,788	529,211	1,344,999

NA - Not Available.

[1] *See* RBOC/GTE/SNET Payphone Coalition Comments on Remand Issues in CC Docket No. 96-128, Report of Arthur Andersen on Per-Call Compensation, Carl R. Geppert at 10 (July 13, 1998).

[2] *See* Letter from Denny Reuss, NPC Product Manager, to Craig Stroup, Federal Communications Commission, CC Docket 96-128 at 1 (Filed October 22, 1998. The 1997 data point is as of June 30, 1997.)

Source: Unless otherwise noted, raw data provided by National Payphone Clearinghouse. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau.

8 Local Telephone Competition

For most of the past century, households and businesses had no choice in selecting their local telephone company. In the 1980s, competitive access providers (CAPs) began to market to business customers access services provided over CAPs' wired networks. To some extent they also carried local telephone calls among their customers. In the 1990s, some CAPs and other companies, including affiliates of cable television companies and local service divisions of long distance companies, began to offer local telephone services to a broader range of customers. Companies with operations in larger cities added operations in smaller cities, where the typical customer is more likely to be a small or medium-sized business than a large business, and some new companies focused on smaller cities from the beginning. The newer competitors are often called competitive local exchange carriers (CLECs), although the terms CAPs and CLECs are sometimes used interchangeably.

The Telecommunications Act of 1996 (1996 Act) contemplated three vehicles for competitors to enter local telephone service markets. First, CLECs may resell the services of incumbent local exchange carriers (ILECs). Second, CLECs may make use of ILEC facilities, for example, by leasing ILEC unbundled network elements (UNEs) loops and transport. Third, CLECs may build the complete set of facilities they need to compete. Individual competitors have used various combinations of these methods at different times.

1. CLEC Share of Switched Access Lines

Table 8.1 and the associated chart show the number of ILEC and CLEC end-user switched access lines from December 1999 through June 2004. CLECs provided 32.0 million (or 17.8%) of the approximately 180 million nationwide switched access lines in service to end-user customers at the end of June 2004, according to information reported on FCC Form 477, *Local Competition and Broadband Reporting.* This represents a 7% growth of CLEC market size during the first half of 2004. Table 8.2 and the associated chart show the relative shares of the residential and small business end-user switched access lines provisioned by ILECs and CLECs from December 1999 through June 2004. At the end of June 2004, about 35% of these CLEC lines served medium and large business, institutional, and government customers. By contrast, 23% of reported ILEC switched access lines served such customers.

Table 8.3 shows that CLECs report providing almost one-fourth of their switched access lines over their own local loop facilities. In the course of the semiannual data collections, the percentage of these lines provisioned by reselling services has declined steadily (to 16% at the end of June 2004) and the percentage provisioned over acquired UNE loops, both stand-alone and with switching, has grown (to 61%). Chart 8.3 shows the percentages of CLEC end-user lines that were provisioned over their own facilities and those lines acquired from other carriers during December 1999 and June 2004. Data reported by ILECs, presented in Table 8.4, indicate that UNE loops provided with ILEC switching (including the UNE-platform) have increased faster than UNE loops provided without switching. Chart 8.4 shows the trend, from December

1997 through June 2004, of ILEC switched access lines and the percentages provided to other carriers.

Table 8.5 shows ILEC and CLEC switched access lines by state, and the CLEC share of total switched access lines by state, at the end of June 2004. Table 8.6 presents historical data on CLEC share by state.

2. CLEC Share of Local Telephone Service Revenues

Table 8.7 shows that carriers competing with the ILECs increased their share of local telephone service revenues from 2002 to 2003 – from $15.0 billion to $18.3 billion. The share of nationwide local telephone service revenues claimed by the competitors increased from 12.1% in 2002 to 15.0% in 2003. Chart 8.5 shows the ILEC and CLEC shares of local service revenues from 1998 through 2003.

3. Ported Telephone Numbers

When telecommunications customers switch service providers, they have the option of taking their local telephone number with them. This is called *porting.* All ported numbers reside in one of seven regional databases. These databases contain several elements of information about ported numbers, including identifiers for the old and new carriers, and the date the number was ported. The porting databases are overseen by the local number portability administrator, currently NeuStar, Inc. NeuStar provides the FCC with two sets of information on ported numbers.

The first set of information is a snapshot of the database. On a monthly basis, the FCC receives a list of all ported numbers where the customer changed carriers. For each number, the list includes identifiers for the old and new carriers for that number, and the date the number was ported. In order to protect consumer privacy, the Commission receives the information in a manner that prevents it from determining if any particular telephone number has been ported. This information forms the basis for Tables 8.8 and 8.9.

Table 8.8 shows the quantities of ports in the porting databases at the end of each quarter. The ports are broken out by service type: from landline to landline, landline to mobile, mobile to mobile, or mobile to landline. Table 8.9 examines the ports in the databases as of December 31, 2004. It shows, by service type, when each number in the database was ported.

The information that forms the basis for Tables 8.8 and 8.9 has three caveats that result from the fact that the database was designed solely to route calls. If a customer ports from Carrier A to Carrier B, and then later ports the number from Carrier B to Carrier C, then the database contains the information of only the last port. The record of the first port is deleted. Similarly, if a ported number is affected by an area code change, a new record must be established in the database to reflect the number's new area code. The old record is then deleted. The new record's port date is the effective date of the new area code. This means that

comparison of Table 8.9 with future versions of the same table may show lower numbers of ports for any given time period, such as the fourth quarter of 2004.

The third caveat for the above tables is that it does not include ports where the number returns to the original carrier. If a number returns to the original carrier, calls to that number can be properly routed without the use of the porting database, so the record is simply deleted from the database. NeuStar recently started supplying information designed to capture all ports, including ports back to the original carrier. This second set of information is used for Table 8.10. It shows all monthly porting since the advent of wireless porting.

Table 8.1
End-User Switched Access Lines Reported

Date	ILEC Lines	CLEC Lines	Total	CLEC Share
December 1999	181,307,695	8,194,243	189,501,938	4.3 %
June 2000	179,761,930	11,557,381	191,319,311	6.0
December 2000	177,641,529	14,871,409	192,512,938	7.7
June 2001	174,861,248	17,274,727	192,135,975	9.0
December 2001	172,043,582	19,653,441	191,697,023	10.3
June 2002	167,472,318	21,644,928	189,117,246	11.4
December 2002	164,526,149	24,863,691	189,389,840	13.1
June 2003	158,386,821	26,985,345	185,372,166	14.6
December 2003	153,266,932	29,775,438	183,042,370	16.3
June 2004	148,103,506	31,983,229	180,086,735	17.8

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of June 30, 2004* (December 2004).

Chart 8.1
End-User Switched Access Lines Reported
(Lines in Millions)

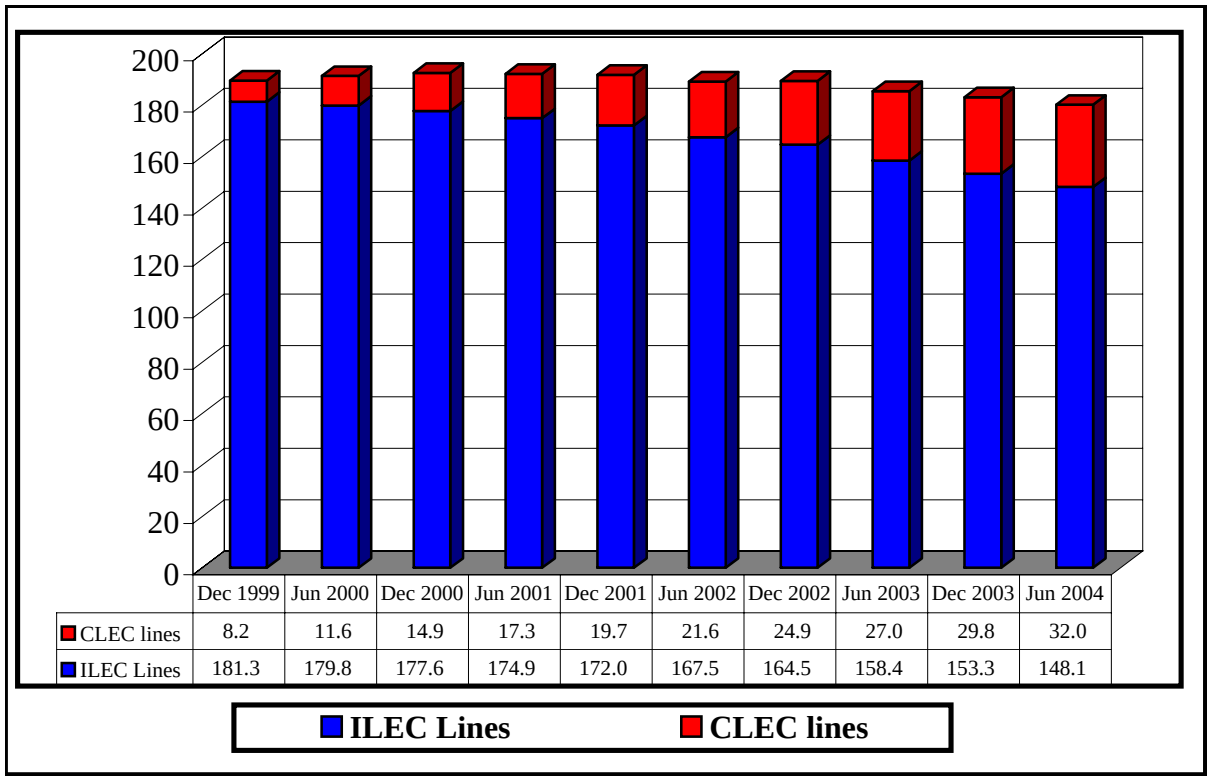


Table 8.2
End-User Switched Access Lines by Customer Type

Date	Reporting ILECs			Reporting CLECs		
	Residential and Small Business	Other [1]	% Residential and Small Business	Residential and Small Business	Other [1]	% Residential and Small Business
December 1999	139,758,434	41,549,261	77.1 %	3,368,702	4,825,541	41.1 %
June 2000	140,635,199	39,126,731	78.2	4,579,501	6,977,880	39.6
December 2000	138,872,415	38,769,114	78.2	6,620,471	8,250,938	44.5
June 2001	134,618,062	40,243,186	77.0	7,793,071	9,481,656	45.1
December 2001	133,421,570	38,622,012	77.6	9,489,049	10,164,392	48.3
June 2002	131,051,178	36,421,140	78.3	11,080,676	10,564,252	51.2
December 2002	127,606,456	36,919,693	77.6	14,608,495	10,255,196	58.8
June 2003	122,663,356	35,723,465	77.4	16,770,561	10,214,784	62.1
December 2003	118,746,138	34,520,794	77.5	18,702,229	11,073,209	62.8
June 2004	114,621,599	33,481,907	77.4	20,824,618	11,158,611	65.1

[1] Medium and large business, institutional, and government customers.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of June 30, 2004* (December 2004).

Chart 8.2
Percent of Lines that Serve Residential and Small Business Customers

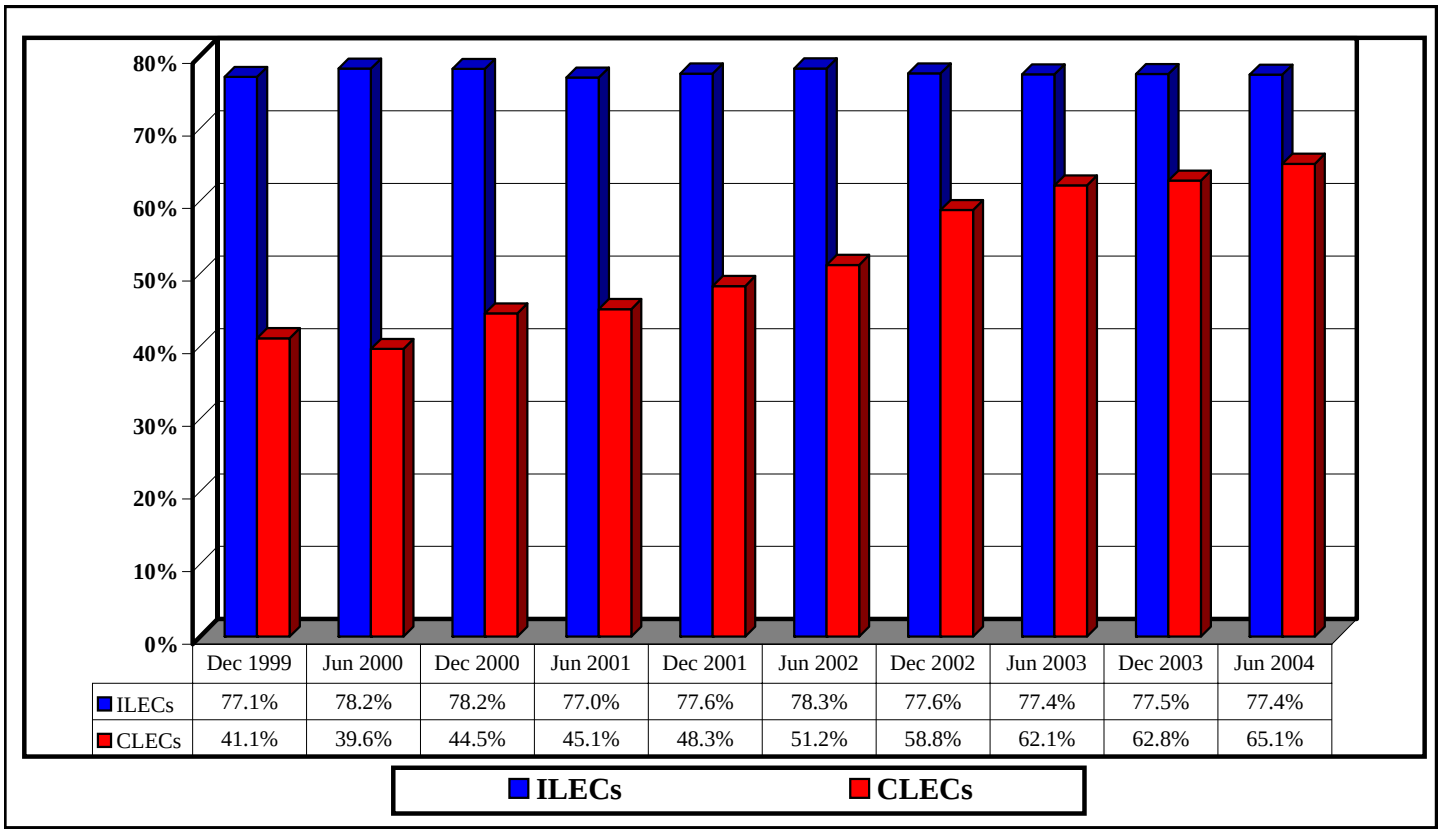


Table 8.3
Reporting Competitive Local Exchange Carriers
(End-User Switched Access Lines in Thousands)

Date	CLECs Reporting	Total End-User Lines	Acquired From Other Carriers				CLEC-Owned	
			Resold Lines	Percent	UNEs [1]	Percent	Lines [2]	Percent
Dec 1999	81	8,194	3,513	42.9 %	1,959	23.9	2,723	33.2 %
Jun 2000	78	11,557	4,315	37.3	3,201	27.7	4,042	35.0
Dec 2000	89	14,871	4,114	27.7	5,540	37.3	5,217	35.1
Jun 2001	91	17,275	3,919	22.7	7,580	43.9	5,776	33.4
Dec 2001	94	19,653	4,250	21.6	9,332	47.5	6,072	30.9
Jun 2002	96	21,645	4,478	20.7	10,930	50.5	6,236	28.8
Dec 2002	112	24,864	4,677	18.8	13,709	55.1	6,479	26.1
Jun 2003	125	26,985	4,887	18.1	15,728	58.3	6,370	23.6
Dec 2003	136	29,775	4,842	16.3	17,888	60.1	7,045	23.7
Jun 2004	136	31,983	5,140	16.1	19,356	60.5	7,487	23.4

[1] Includes unbundled network element (UNE) loops leased from an unaffiliated carrier on a stand-alone basis and also UNE loops leased in combination with UNE switching or any other unbundled network element.

[2] Lines provided over CLEC-owned "last-mile" facilities.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of June 30, 2004* (December 2004).

Chart 8.3
Competitive Local Exchange Carriers' End-User Lines

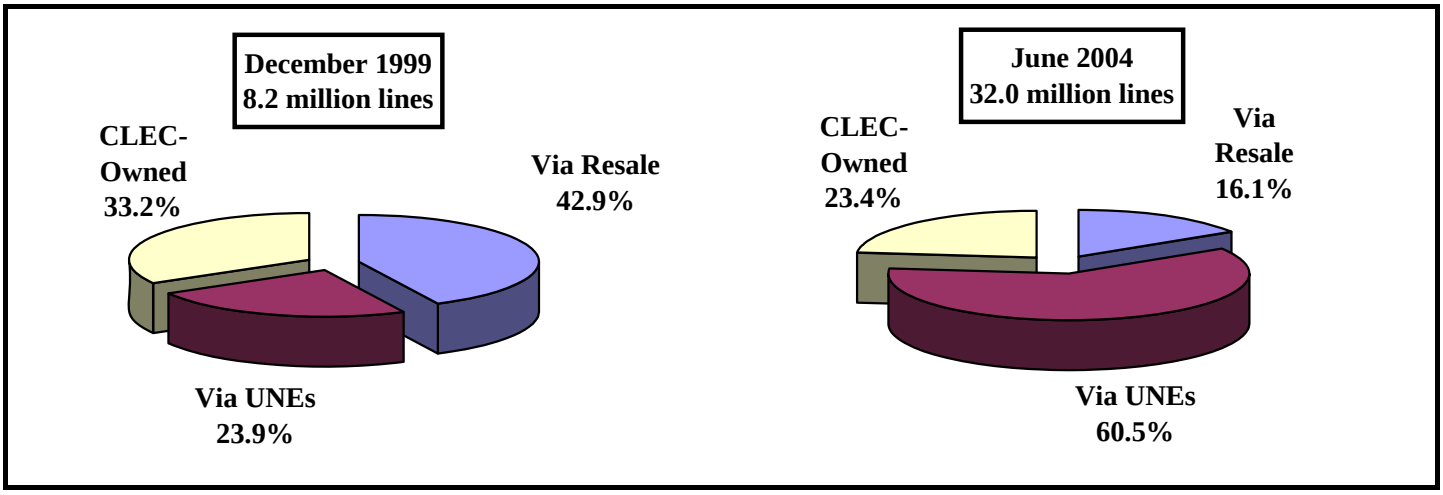


Table 8.4
Reporting Incumbent Local Exchange Carriers
(End-User Switched Access Lines in Thousands)

Date [1]	ILECs Reporting	Total Lines	End-User Lines	Provided to Other Carriers					
				Resold Lines	UNEs			Total UNEs and Resold Lines	Percent of Total Lines
					Without Switching	With Switching	Total UNEs		
Dec 1997	9	159,008	157,132	1,743			133	1,876	1.2 %
Jun 1998	8	161,810	159,118	2,448			244	2,692	1.7
Dec 1998	7	164,614	161,191	3,062			361	3,423	2.1
Jun 1999	7	167,177	162,909	3,583			685	4,268	2.6
Dec 1999	168	187,294	181,308	4,494	1,004	489	1,493	5,987	3.2
Jun 2000	159	188,171	179,762	5,098	1,696	1,616	3,312	8,409	4.5
Dec 2000	166	188,304	177,642	5,388	2,436	2,838	5,274	10,662	5.7
Jun 2001	156	187,201	174,861	4,417	3,161	4,761	7,922	12,340	6.6
Dec 2001	164	185,517	172,044	4,014	3,679	5,781	9,460	13,474	7.3
Jun 2002	166	182,487	167,472	3,475	4,061	7,478	11,540	15,015	8.2
Dec 2002	174	181,756	164,526	2,743	4,259	10,227	14,487	17,229	9.5
Jun 2003	181	177,860	158,387	2,232	4,205	13,036	17,241	19,473	10.9
Dec 2003	185	174,536	153,267	1,833	4,260	15,176	19,436	21,269	12.2
Jun 2004	185	171,129	148,104	1,600	4,290	17,136	21,426	23,026	13.5

[1] Data for December 1997 through June 1999 are from Common Carrier Bureau voluntary surveys. Starting with December 1999, data are from FCC Form 477 filings.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of June 30, 2004* (December 2004).

Chart 8.4
ILEC Lines and the Percent Provided to Other Carriers

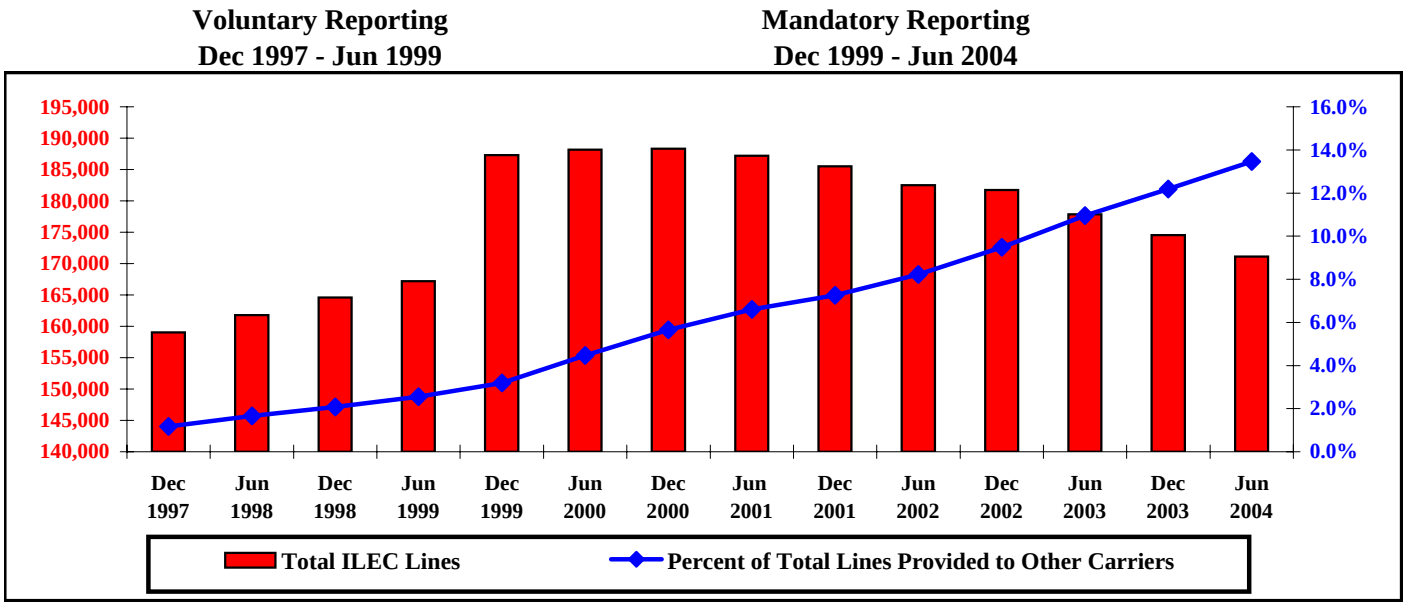


Table 8.5
End-User Switched Access Lines Served by Reporting Local Exchange Carriers
(As of June 30, 2004)

State	ILECs	CLECs	Total	CLEC Share
Alabama	1,997,058	365,060	2,362,118	15 %
Alaska	419,304	*	*	*
Arizona	2,415,432	814,194	3,229,626	25
Arkansas	1,172,200	162,996	1,335,196	12
California	19,478,761	3,723,815	23,202,576	16
Colorado	2,439,132	498,583	2,937,715	17
Connecticut	2,102,689	272,385	2,375,074	11
Delaware	497,466	92,810	590,276	16
District of Columbia	915,583	215,421	1,131,004	19
Florida	9,633,565	1,785,001	11,418,566	16
Georgia	4,044,935	977,358	5,022,293	19
Hawaii	683,146	*	*	*
Idaho	666,914	47,398	714,312	7
Illinois	6,326,988	1,672,522	7,999,510	21
Indiana	3,095,055	501,936	3,596,991	14
Iowa	1,232,364	199,115	1,431,479	14
Kansas	1,102,696	316,946	1,419,642	22
Kentucky	1,841,495	218,810	2,060,305	11
Louisiana	2,040,518	283,333	2,323,851	12
Maine	690,024	113,957	803,981	14
Maryland	3,239,029	615,757	3,854,786	16
Massachusetts	3,432,038	997,760	4,429,798	23
Michigan	4,487,619	1,575,267	6,062,886	26
Minnesota	2,377,827	604,152	2,981,979	20
Mississippi	1,148,580	131,218	1,279,798	10
Missouri	2,906,801	430,538	3,337,339	13
Montana	482,548	19,204	501,752	4
Nebraska	736,257	205,560	941,817	22
Nevada	1,272,060	149,735	1,421,795	11
New Hampshire	670,480	170,433	840,913	20
New Jersey	5,148,627	1,319,513	6,468,140	20
New Mexico	894,345	76,469	970,814	8
New York	8,685,767	3,684,036	12,369,803	30
North Carolina	4,440,280	576,538	5,016,818	11
North Dakota	265,881	22,502	288,383	8
Ohio	5,697,351	979,885	6,677,236	15
Oklahoma	1,591,936	242,737	1,834,673	13
Oregon	1,743,918	267,121	2,011,039	13
Pennsylvania	6,638,982	1,706,036	8,345,018	20
Puerto Rico	1,111,894	*	*	*
Rhode Island	448,853	213,787	662,640	32
South Carolina	2,025,422	226,284	2,251,706	10
South Dakota	271,682	*	*	*
Tennessee	2,818,771	475,312	3,294,083	14
Texas	10,139,446	2,320,273	12,459,719	19
Utah	940,678	288,009	1,228,687	23
Vermont	366,716	*	*	*
Virgin Islands	70,672	0	70,672	0
Virginia	4,075,297	994,588	5,069,885	20
Washington	3,276,000	494,375	3,770,375	13
West Virginia	912,228	*	*	*
Wisconsin	2,754,836	626,809	3,381,645	19
Wyoming	235,360	*	*	*
Nationwide	148,103,506	31,983,229	180,086,735	18 %

Note: Carriers with under 10,000 lines in a state were not required to report.

* Data withheld to maintain firm confidentiality.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of June 30, 2004* (December 2004).

Table 8.6
Competitive Local Exchange Carrier Share of End-User Switched Access Lines

	1999	2000		2001		2002		2003		2004
State	**Dec**	**Jun**	**Dec**	**Jun**	**Dec**	**Jun**	**Dec**	**Jun**	**Dec**	**Jun**
Alabama	5 %	3 %	4 %	5 %	5 %	5 %	9 %	11 %	13 %	15 %
Alaska	*	*	*	*	*	*	*	*	*	*
Arizona	*	5	5	7	9	11	12	16	22	25
Arkansas	*	*	*	*	*	*	10	*	11	12
California	4	5	6	7	8	9	11	13	15	16
Colorado	5	7	9	10	13	14	15	16	17	17
Connecticut	3	5	6	7	7	9	9	10	10	11
Delaware	*	*	*	0	0	*	*	9	12	16
District of Columbia	7	7	9	12	13	16	14	16	17	19
Florida	6	6	6	7	7	9	13	13	14	16
Georgia	5	6	8	10	11	13	15	17	18	19
Hawaii	*	*	0	*	*	*	*	*	*	*
Idaho	0	0	*	*	*	*	*	5	6	7
Illinois	5	7	9	13	15	17	19	19	20	21
Indiana	3	4	5	5	5	7	8	9	13	14
Iowa	*	9	11	11	12	12	13	13	13	14
Kansas	*	5	7	8	9	12	17	21	21	22
Kentucky	2	*	3	*	*	*	4	5	8	11
Louisiana	3	2	3	4	4	5	7	9	10	12
Maine	*	*	*	*	*	*	*	8	10	14
Maryland	2	3	4	6	4	6	7	10	14	16
Massachusetts	6	8	11	12	15	16	16	18	21	23
Michigan	3	5	6	9	13	18	21	22	25	26
Minnesota	6	7	9	11	13	14	17	17	19	20
Mississippi	4	*	4	4	3	2	6	7	9	10
Missouri	3	5	6	6	7	8	10	10	11	13
Montana	*	*	*	*	*	*	*	3	4	4
Nebraska	*	*	*	*	12	16	18	20	21	22
Nevada	*	*	*	10	*	*	11	9	10	11
New Hampshire	*	*	6	8	10	13	14	16	17	20
New Jersey	*	4	5	4	5	6	10	15	19	20
New Mexico	*	*	*	*	*	*	*	*	*	8
New York	9	16	20	23	25	25	24	27	28	30
North Carolina	3	4	4	6	6	6	8	9	9	11
North Dakota	*	*	*	*	*	*	*	*	8	8
Ohio	4	4	4	4	5	7	9	11	14	15
Oklahoma	*	*	5	6	8	10	11	11	14	13
Oregon	2	3	4	5	7	7	9	8	12	13
Pennsylvania	5	8	10	13	14	15	16	17	19	20
Puerto Rico	0	*	*	*	*	*	*	*	*	*
Rhode Island	*	*	*	10	16	18	21	25	28	32
South Carolina	*	*	4	4	3	5	7	9	9	10
South Dakota	*	*	*	*	*	*	*	14	18	*
Tennessee	4	6	6	8	8	7	9	10	11	14
Texas	4	7	13	14	16	16	17	18	18	19
Utah	3	6	10	11	13	13	15	19	20	23
Vermont	*	*	*	*	*	*	*	*	*	*
Virgin Islands	0	0	0	0	0	0	0	0	0	0
Virginia	2	5	7	9	11	12	12	14	17	20
Washington	4	5	6	6	8	9	10	10	11	13
West Virginia	*	*	*	*	*	*	*	*	*	*
Wisconsin	5	7	8	9	11	12	13	15	18	19
Wyoming	*	*	*	*	*	*	*	*	*	*
Nationwide	4 %	6 %	8 %	9 %	10 %	11 %	13 %	15 %	16 %	18 %

* Data withheld to maintain firm confidentiality

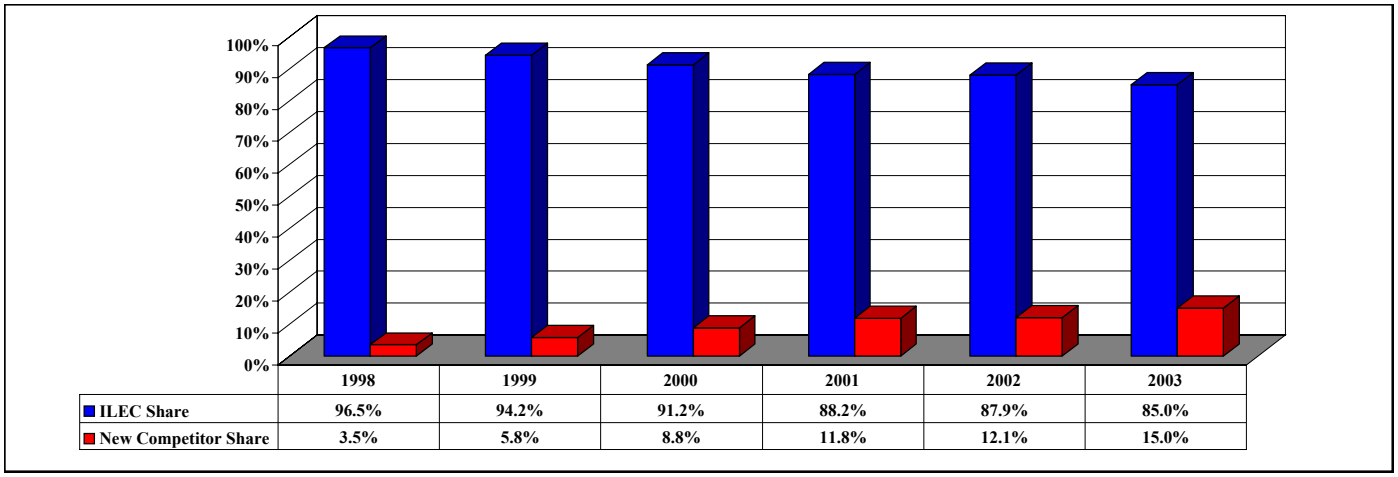
Source: Industry Analysis and Technology Division, Wireline Competition Bureau,*Local Telephone Competition: Status as of June 30, 2004* (December 2004).

Table 8.7
Nationwide Local Service Revenues and New Competitors' Share[1]
(Dollar Amounts Shown in Millions)

	TRS Data				TRS & USF Data		FCC Form 499 Data				
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Number of Local Competitors[1]											
RBOCs & Other Incumbent LECs	1,281	1,347	1,347	1,376	1,410	1,348	1,318	1,335	1,335	1,309	1,301
CAPs & CLECs	20	30	57	94	129	212	298	479	511	542	601
Local Resellers, Shared Tenant, Private Carriers, & Other Local	NA	NA	NA	25	18	64	96	128	158	186	172
All Other Carriers Reporting Local Exchange Service Revenues	NA	NA	NA	74	109	133	143	229	168	176	179
Total[2]	1,301	1,377	1,404	1,569	1,666	1,757	1,855	2,171	2,172	2,213	2,253
Local Service Revenues[3]											
Incumbent LECs											
Bell Operating Companies[4]	$58,838	$61,415	$65,485	$70,290	$68,028	$69,801	$76,586	$93,135	$93,388	$91,158	$85,558
Other Incumbent LECs[4]	20,894	22,507	24,269	24,899	24,960	26,989	26,084	15,166	17,490	17,590	18,141
Total[5]	79,732	83,922	89,754	95,189	92,988	96,790	102,670	108,301	110,879	108,749	103,699
Local Service Competitors											
CAPs & CLECs	174	269	595	949	1,556	2,393	4,505	7,552	10,629	10,001	12,373
Local Resellers, Shared Tenant, Private Carriers, & Other Local	NA	NA	NA	NA	224	329	522	914	1,395	1,644	943
All Other Filers (Local Exchange Service Revenues Only)[5]	46	32	56	59	381	809	1,319	2,028	2,796	3,337	4,979
Total	220	301	651	1,008	2,161	3,530	6,347	10,494	14,820	14,982	18,295
Total	$79,952	$84,224	$90,405	$96,197	$95,149	$100,320	$109,016	$118,795	$125,698	$123,730	$121,994
Share of Local Service Revenues											
Incumbent LECs											
Bell Operating Companies	73.6%	72.9%	72.4%	73.1%	71.5%	69.6%	70.3%	78.4%	74.3%	73.7%	70.1%
Other Incumbent LECs	26.1%	26.7%	26.8%	25.9%	26.2%	26.9%	23.9%	12.8%	13.9%	14.2%	14.9%
Total	99.7%	99.6%	99.3%	99.0%	97.7%	96.5%	94.2%	91.2%	88.2%	87.9%	85.0%
Local Service Competitors											
CAPs & CLECs	0.2%	0.3%	0.7%	1.0%	1.6%	2.4%	4.1%	6.4%	8.5%	8.1%	10.1%
Local Resellers, Shared Tenant, Private Carriers, & Other Local Providers	NA	NA	NA	NA	0.2%	0.3%	0.5%	0.8%	1.1%	1.3%	0.8%
All Other Filers	0.1%	0.0%	0.1%	0.1%	0.4%	0.8%	1.2%	1.7%	2.2%	2.7%	4.1%
Total	0.3%	0.4%	0.7%	1.0%	2.3%	3.5%	5.8%	8.8%	11.8%	12.1%	15.0%
Total Telecommunications Revenues (Including Payphone, Mobile, & Toll Service)											
Incumbent LECs[4]	$95,228	$98,431	$102,820	$107,905	$105,154	$108,234	$112,216	$116,158	$117,885	$114,999	$109,480
Local Competitors	191	274	637	1,012	2,481	4,034	6,508	10,945	14,781	15,309	16,857
Ratio of ILEC Total Telecommunications Revenues to Local Competitor Total Telecommunications Revenues	498 : 1	351 : 1	165 : 1	107 : 1	42 : 1	27 : 1	17 : 1	11 : 1	8 : 1	8 : 1	6 : 1

See notes on following page.

Chart 8.5
ILEC and New Local Competitor Share of Local Service Revenues



Notes to Table 8.7.

NA - Not available.

[1] Counts for ILECs, CLECs, CAPs, local resellers, shared tenant service providers, private carriers and other local service providers are based on the numbers of filers actually reporting revenues. The category All Other Filers includes payphone, mobile service, and toll providers that reported local exchange service revenues. Non-ILEC affiliates of ILECs are classified as local service competitors, not as ILECs.

[2] The total number of local service providers shown in Table 8.7 differs from the total fixed local service providers shown in Table 15.3 because the number shown in Table 8.7 includes filers that self identify as mobile or toll providers, but that report some local exchange service revenues.

[3] For 1993 through 1996, for most categories of carriers, local service revenues include revenues from the following TRS reporting categories: local exchange, local private line, other local services, interstate access services, and intrastate access services. The amounts shown do not include pay telephone, mobile, or toll service revenues. See also footnote four. 1998 revenues for carriers that filed TRS worksheets but not universal service worksheets were estimated using 1998 TRS worksheets. These worksheets contain carrier revenue data for calendar year 1997.

[4] Incumbent LEC local service revenues for 1996 and prior years include significant amounts of yellow pages, billing and collection, and other revenues that were reported as other local service revenues. If these revenues were included in 1997, incumbent LECs would show significant revenue growth from 1996 to 1997. Inside wire maintenance was included in local service revenues in 1997 but not thereafter.

[5] Toll carriers typically provide resold special access and private line services as part of toll service operations. Accordingly, the table shows local exchange revenues rather than all local revenues for these carriers.

Sources: Data filed on FCC Forms 431, 457, 499-Q and 499-A worksheets. See also: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2005).

Table 8.8
Telephone Numbers in the Porting Database at the End of Each Quarter [1]
(By Type of Port) [2]

Year	Quarter	Landline to Landline	Landline to Mobile [3]	Mobile to Mobile [3]	Mobile to Landline [3]	Total
		(In Thousands)		(In Thousands)		
1999	Second	1,840	0	0	0	1,840
	Third	2,658	0	0	0	2,658
	Fourth	3,854	0	0	0	3,854
2000	First	5,029	0	0	0	5,029
	Second	5,781	0	0	0	5,781
	Third	7,595	0	0	0	7,595
	Fourth	9,146	0	0	0	9,146
2001	First	10,567	0	0	0	10,567
	Second	12,310	0	0	0	12,310
	Third	14,610	0	0	0	14,610
	Fourth	15,519	0	0	0	15,519
2002	First	16,810	0	0	0	16,810
	Second	18,210	0	0	*	18,210
	Third	19,862	*	*	*	19,862
	Fourth	21,449	*	*	*	21,449
2003	First	22,781	*	*	*	22,781
	Second	23,720	3	*	*	23,723
	Third	24,792	3	*	*	24,796
	Fourth	25,869	16	795	2	26,682
2004	First	28,462	173	2,686	3	31,324
	Second	28,371	406	4,635	4	33,417
	Third	29,396	667	6,874	9	36,945
	Fourth	30,626	818	10,308	10	41,762

* Indicates a number between 1 and 499.

[1] Numbers ported because customer changed carriers.

[2] As is mentioned more thoroughly in the text, the database contains the date when the telephone number record was last updated. For most telephone numbers, this was the most recent port. For those telephone numbers affected by area code changes, however, the date refers to when the record was updated to reflect the new area code.

[3] Wireless portability started November 24, 2003. Numbers ported to wireless carriers before then represent carriers making test ports.

Source: Raw data from Local Number Portability Administrator (NeuStar, Inc.). Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau.

Table 8.9
Telephone Numbers in the Porting Database as of December 31, 2004 [1]
(By Quarter in Which They Were Most Recently Ported) [2]

Ported During		Landline to Landline	Landline to Mobile [3]	Mobile to Mobile [3]	Mobile to Landline [3]
Year	Quarter	(In Thousands)		(In Thousands)	
1998	First	0	0	0	0
	Second	3	0	0	0
	Third	44	0	0	0
	Fourth	159	0	0	0
1999	First	261	0	0	0
	Second	410	0	0	0
	Third	466	0	0	0
	Fourth	601	0	0	0
2000	First	627	0	0	0
	Second	680	0	0	0
	Third	843	0	0	0
	Fourth	971	0	0	0
2001	First	1,002	0	0	0
	Second	1,181	0	0	0
	Third	1,228	0	0	0
	Fourth	1,434	0	0	0
2002	First	1,318	0	0	0
	Second	1,446	0	0	*
	Third	1,919	*	*	*
	Fourth	2,042	*	*	*
2003	First	1,436	0	0	*
	Second	1,530	2	*	*
	Third	1,598	*	*	*
	Fourth	1,562	11	709	1
2004	First	1,943	135	1,706	1
	Second	1,947	148	1,959	1
	Third	2,007	231	2,293	4
	Fourth	1,968	292	3,642	2

* Indicates a number between 1 and 499.

[1] Numbers ported because customer changed carriers.

[2] The local number portability database was designed solely for the purpose of routing calls. As such, it retains only the most recent porting activity for any given number. So if a consumer ports a number from Carrier A to Carrier B, and later the consumer then ports the number from Carrier B to Carrier C, the *in database as of* numbers will not reflect the original port from Carrier A to Carrier B. Also, numbers that revert back to the original carrier, either through a customer porting back to the original carrier, or discontinuing service with that number, are dropped from the database. Lastly, area code splits can cause a number that was at one time ported from Carrier A to Carrier B to again be ported from Carrier A to Carrier B, as the database record must be updated to reflect the new area code. When this happens, the old number disappears from the database.

[3] Wireless portability started November 24, 2003. Numbers ported to wireless carriers before then represent carriers making test ports.

Source: Raw data from Local Number Portability Administrator (NeuStar, Inc.). Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau.

Table 8.10
Telephone Number Porting Activity Since Wireless Pooling Started [1]

	Month	Landline to Landline	Landline to Cellular/PCS	Cellular/PCS to Cellular/PCS	Cellular/PCS to Landline	Total
2003	In Database as of November 30 [2]	25,530,000	6,000	61,000	1,000	25,598,000
	December	561,000	13,000	796,000	2,000	1,372,000
2004	January	809,000	24,000	713,000	1,000	1,547,000
	February	711,000	65,000	591,000	2,000	1,369,000
	March	776,000	79,000	632,000	1,000	1,488,000
	April	718,000	49,000	613,000	1,000	1,381,000
	May	756,000	73,000	689,000	1,000	1,519,000
	June	789,000	165,000	873,000	2,000	1,829,000
	July	656,000	143,000	806,000	3,000	1,608,000
	August [3]	786,000	95,000	824,000	*	1,705,000
	September	701,000	43,000	787,000	1,000	1,532,000
	October	899,000	97,000	892,000 [5]	1,000	1,889,000
	November	736,000	131,000	1,127,000 [5]	2,000	1,996,000
	December	692,000	86,000	2,029,000 [5]	1,000	779,000
	In Database as of December 31 [4]	30,626,000	818,000	10,308,000	10,000	41,762,000

* Indicates a number between 1 and 499.

[1] Unlike the data in Tables 8.8 and 8.9, this information includes numbers that were ported back to the original carrier, or where the subscriber with the ported number terminated service.

[2] Includes 486,000 landline to landline ports, 3,000 landline to Cellular/PCS ports, 60,000 Cellular/PCS to Cellular/PCS ports, and less than 1,000 Cellular/PCS to landline ports in the database prior to November 2003. Wireless portability started November 23, 2003.

[3] Due to a data problem, does not include numbers that were ported back to the original carrier, or where the subscriber with the ported number terminated service.

[4] For the reasons following, the *in database as of* numbers are not equal to the sum of the numbers above them. The local number portability database was designed solely for the purpose of routing calls. As such, it retains only the most recent porting activity for any given number. So if a consumer ports a number from Carrier A to Carrier B, and later the consumer then ports the number from Carrier B to Carrier C, the *in database as of* numbers will not reflect the original port from Carrier A to Carrier B. Also, numbers that revert back to the original carrier, either through a customer porting back to the original carrier, or discontinuing service with that number, are dropped from the database. Lastly, area code splits can cause a number that was at one time ported from Carrier A to Carrier B to again be ported from Carrier A to Carrier B, as the database record must be updated to reflect the new area code. When this happens the old number disappears from the database.

[5] Includes significant porting activity between Cingular and AT&T Wireless following the closing of their merger.

Source: Raw data from NeuStar, Inc. Rollups performed by Industry Analysis and Technology Division, Wireline Competition Bureau, FCC.

9 Long Distance Telephone Industry

Until the 1970s, AT&T had a virtual monopoly on long distance service in the United States. In the 1970s, competitors such as MCI and Sprint began also to offer long distance service. With the gradual emergence of competition, basic rates dropped, calling surged, and AT&T's dominance declined. The end of 1999 to the present has brought forth further changes with the Commission's approval of section 271 applications by the Bell operating companies (BOCs) to provide in-region interLATA throughout the United States.

More than 1,000 companies now offer wireline long distance service. These carriers remain subject to the Commission's jurisdiction. The Commission, however, has chosen to rely on competition, rather than regulation, as much as possible. Thus, the Commission forbears from regulating most aspects of long distance service.

1. Toll Revenues

In 2003, carriers providing toll service generated $77.2 billion in toll revenues. These include toll revenues from long distance carriers, wireless toll from wireless carriers, and toll revenues from local exchange carriers. These revenues are shown in Table 9.1.

Toll calls can be divided into three jurisdictional categories - intrastate calls, domestic interstate calls, and international calls. The revenues, from 1980 through 2003, for each of the three jurisdictional categories are shown in Table 9.2.

Toll revenues also can be divided between residential and nonresidential services, as in Table 9.3. In 2003, residential customers generated over one third of all end-user toll revenues.

2. Number of Companies

The number and types of carriers reporting long distance revenues are shown in Table 9.4. The Telecommunications Reporting Worksheet (FCC Form 499-A) requires each filer to select up to five of 20 categories as best describing its primary line of business. Six of these categories consist of carriers that are primarily engaged in providing long distance service and are collectively described as being toll carriers: interexchange carriers (IXCs), operator service providers (OSPs), other toll service providers, prepaid calling card providers, satellite service providers, and toll resellers.

In 2003, 1,026 filers selected at least one of the above toll service provider categories as their primary line of business and are therefore categorized as being a toll carrier. (They were also asked to rank their choices with *one* being the most important

Prior to 1986, carrier identification codes (CICs) provided information on the number of firms seeking to acquire certain types of interconnecting arrangements with local telephone companies. Beginning in 1986, a number of corporations, government agencies and other

organizations began to acquire carrier identification codes for their own use, rather than for the purpose of providing telecommunications services to others. After that time, the use of such codes to estimate the number of long distance carriers became less reliable. The number of codes assigned over time can be found in the long distance section of the May 2004 *Trends* report which can be accessed at www.fcc.gov/wcb/stats.html.

CICs are currently assigned by the North American Numbering Plan Administration (NANPA), which is part of Neustar, Inc. Further information on such codes can be found on the Internet at www.nanpa.com.

3. Long Distance Market Shares

A generation ago, before the breakup of the Bell System, AT&T's local telephone companies provided local service to most of the United States. At the beginning of 1984, however, AT&T's local operating companies were divested in the settlement of an antitrust case.

After the AT&T divestiture, AT&T's former operating companies were restricted to providing service within their own local access and transport areas (LATAs), i.e., they were precluded from offering toll service that crossed LATA boundaries. As a result, two separate and distinct toll markets emerged.

In the first, AT&T competed with small but rapidly growing competitors for calls that crossed LATA boundaries. This market included almost all interstate and international calls and a large number of intrastate toll calls as well. A second and much smaller market consisted of short distance toll calls that did not cross LATA boundaries. This second market was dominated, at least initially, by the local exchange carriers operating within their own service territories.

Over time, the distinctions between the two markets have become blurred as customers acquired the ability to select among competing carriers for their intraLATA calls as well as their interLATA calls. The 1996 Telecommunications Act established a procedure for Bell companies to offer in-region, interLATA long distance service after complying with certain preconditions to open their own markets.

Long-term trends in toll revenues are shown in Table 9.5. Over time, AT&T has lost market share to new entrants. By 2003, carriers not even in existence a generation ago accounted for more than half of all long distance telephone toll revenues and the industry is continuing to evolve. Currently, both AT&T and MCI are involved in merger negotiations with local exchange carriers.

Table 9.6 shows market share information based on all long distance toll providers. AT&T's 1984 toll revenues were about 90% of those reported by all toll service providers. In 1995, AT&T was classified as a non-dominant carrier and, by 2003, AT&T's revenues had declined to 30% of those reported by all long distance toll providers. By year-end 2003, the RBOCs collectively reported toll revenues representing over 15% of the revenues reported by all long distance toll providers.

Chart 9.2 shows the market-share information based on all toll revenues.

4. Residential Toll Revenues

Bill Harvesting® data collected by TNS Telecoms (TNS) are used to calculate residential market shares. Further information on TNS and its Bill Harvesting® data can be found in Section 14 and in Appendix B. Table 9.7, which is based on this information, presents nationwide market shares of households, and direct dial intraLATA and interLATA minutes from 1995 to 2003. Chart 9.3 shows the residential market shares for the largest carriers for 2003. Table 9.8 presents market shares by region for 2003. Chart 9.4 shows residential market shares for the largest carriers for the northeast and southwest regions for 2003.

5. Section 271 Applications

Section 271 of the Communications Act required the regional Bell operating companies (Rocs) to apply to the Commission, on a state-by-state basis, for authorization to provide in-region interLATA services. To obtain such authorization pursuant to section 271, the RBOC had to demonstrate that it satisfied the 14-point competitive checklist, that it complied with the separate affiliate and nondiscrimination requirements of section 272, and that the requested authorization was consistent with the public interest, convenience, and necessity. After a section 271 application was filed with the Commission, the Commission had 90 days to determine whether the RBOC had taken the statutorily required steps to open its local telecommunications markets to competition.

A RBOC applicant had to demonstrate either that: A) one or more unaffiliated competing providers of local telephone service to residential and business subscribers was connected to the Rob's network, and that such local telephone service was being "offered by such competing providers either exclusively over their own telephone exchange service facilities or predominately over their own telephone exchange service facilities in combination with the resale of the telecommunications services of another carrier" (commonly referred to as "Track A"); or B) if no potential competing provider had requested to connect to a Rob's network, the RBOC had a statement of generally available terms and conditions in place demonstrating that it is ready to allow potential competitors to connect to its facilities (commonly referred to as "Track B").

On December 22, 1999, the first regional Bell operating company's application (Bell Atlantic, which is now known as Venison) was approved by the Commission to provide in-region interLATA service in the state of New York. On December 3, 2003, the final Bell operating company's application (Qwest) was approved to provide in-region interLATA service in the state of Arizona. Table 9.9 shows the states in which the BOCs filed section 271 applications, the Bell operating company's name, and the application's resolution date.

The companies approved must continue to comply with the section 271 requirements. The Commission has a number of enforcement tools at its disposal, including imposing penalties or suspension of approval.

Table 9.1

Total Toll Service Revenues by Provider
(Dollar Amounts Shown in Millions)

Company	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
AT&T Companies [1]											
AT&T Communications, Inc.	$35,731	$37,166	$38,069	$39,264	$39,470	$40,551	$39,680	$37,646	$33,310	$27,094	$22,418
Alascom, Inc.	320	329	325								
Teleport Communications Group, Inc.							284	464	632	437	396
ACC Long Distance Corp.				118	122	123					
WorldCom Companies [2] [3]											
WorldCom, Inc. d/b/a MCI - L.D. Operations						22,192	23,431	22,554	21,259	17,659 p	16,062
MCI Telecommunications Corp.	10,947	11,715	14,617	16,372	17,150						
WorldCom, Inc.	1,145	2,221	3,640	4,485	5,897						
Metromedia Communications Corp.	297										
Comsystems Network Services	116										
Wiltel, Inc.	664	917									
MFS Intelenet, Inc.			118	122							
Intermedia Communications, Inc.						380	516	444			
Sprint Companies [4] [5]											
Sprint Corporation - Long Distance Division	6,139	6,805	7,277	7,944	8,595	7,994	9,708	9,038	8,424	7,077	6,326
Verizon Companies											
Bell Atlantic Comm, Inc. d/b/a Verizon Long Dist.*								130	864	1,433	1,802
Verizon Communications, Inc. [ILEC] [6]								2,278	1,988	1,668	1,629
NYNEX LD Co. d/b/a Verizon Ent. Solutions *											362
Verizon Select Services, Inc.					340	607	834	1,004	509		223
SBC Companies											
SBC Communications, Inc. [ILEC] [6]								2,748	2,420	2,182	2,083
Southwestern Bell Communications Svcs., Inc.*									449	729	1,572
SNET America, Inc.*					142	162	186	189	177	158	154
Qwest Companies [7]											
LCI Int'l Telecom Corp. d/b/a Qwest Comm. Svcs. *	317	453	671	1,103	1,001	1,664	1,394	1,271	871		
Qwest Communications Corp.*						320	517	1,773	2,309	3,202	2,824
Qwest Communications, Inc. [ILEC] [6]								374	264	175	124
USLD Communications, Inc.*	100	136	155	188	241	279	216				
Global Crossing Companies [8]											
Global Crossing Telecommunications, Inc.	436	568	827	1,119	775	874	874	801	817	786	615
Global Crossing Bandwidth, Inc.		144	127		324	539	692	1,555	1,225	1,312	1,565
Global Crossing North American Networks, Inc.	213	306	309	323	223			196			
Frontier Comm. - North Central Region, Inc.		123	133	121							
International Exchange Ntwks, Ltd. (IXnet, Inc.)								131			
IDT Corporation						376	850	945	1,303	1,532	1,835
BellSouth Companies											
BellSouth Long Distance, Inc. *									294	486	928 p
BellSouth Telecommunications, Inc. [ILEC] [6]								466	412	341	341
VarTec Companies											
VarTec Telecom, Inc. [9]		107	125	470	820	836	819	923	947	793	404
Excel Telecommunications, Inc.		156	363	1,091	1,179	1,219	942	703	611	427	665
eMeritus Communications, Inc.		215	429	379	264	260	169				
Long Distance Wholesale Club				176	121	131					
WilTel Communications, LLC [9]					227	126	184	413	593	737	1,112
Teleglobe America Inc.						275	557	282	208	269	409
Corvis Corporation											
Broadwing Communications, LLC [10]											310
Cincinnati Bell, Inc., f/k/a Broadwing Inc., Cos. [11]											
Cincinnati Bell Any Distance Inc.							150	202	349	285	183
BCSI f/k/a Broadwing Comms Services, Inc.					258	724	453	574	676	413	128
ITC^DeltaCom Communications, Inc. [12]						122	172	270	259	311	308
McLeodUSA Telecommunications Services, Inc. [13]							232	448	463	358	274
General Communication, Inc.	92	106	120	143	158	175	184	211	238	227	263
Business Telecom, Inc. [14]			115	149	195	212	260	271	286	251	228
Primus Telecommunications, Inc.											219
Americatel Corporation							129	188	269	246	193
Evercom Systems, Inc.							205	206	245	239	184
Electric Lightwave, Inc.								145	227	180	176
ALLTEL Communications, Inc. (ACI)							120	175	174	160	175
Equant Operations, Inc.									183	151	167
Talk America Inc.			180	232	305	426	398	428	249	160	158
Norlight Telecommunications, Inc.								119	142	140	141
Level 3 Communications, LLC									160	131	134
Cable & Wireless USA, Inc. [15]	557	654	700	919	1,066	953	913	770	598	399	
Incumbent Local Exchange Carriers [6] [16]	13,757	13,375	11,332	11,248	10,215	9,429	8,046				
Other Toll Service Providers [6] [17] [18]	11,694	8,982	9,997	13,725	11,705	14,106	15,131	19,281	14,896	11,549	10,098
Total Toll Service Revenues	$82,525	$84,478	$89,629	$99,691	$100,793	$105,055	$108,246	$109,616	$99,300	$83,697	$77,188

Note: Total toll service revenues include intrastate, interstate and international toll revenues. Also, some numbers for previous years have been revised for consistency with other reports. In addition, CLECs have now been included with other toll.

* Regional Bell operating company long distance subsidiaries.

See additional notes on following page.

Notes for Table 9.1.

NA - Not Available.

* Regional Bell operating company long distance affiliates.

[1] ACC Long Distance Corp. and Teleport Communications Group merged in April of 1998, and the combined company, Teleport Communications Group, merged with AT&T Communications, Inc., in July of that year. AT&T Communications acquired Alascom, Inc., August 7, 1995 and began filing a consolidated revenue statement in 1996.

[2] On July 21, 2002, WorldCom, Inc., and certain of its direct and indirect U.S. subsidiaries filed voluntary petitions for relief under Chapter 11 of Title 11 of the United States Code in the United States Bankruptcy Code in the United States Bankruptcy Court for the Southern District of New York and continued in the possession of their assets and the management of their business. Their Plan of Reorganization was confirmed by the Bankruptcy Court on October 31, 2003.

[3] MCI WorldCom's revenues were revised for 1998 to exclude enhanced services and to be consistent with revenues reported for 1999. WorldCom, Inc., completed a merger with MCI Communications Corp. in September of 1998 and filed 1998 revenue figures for the combined company, MCI WorldCom, Inc. In 1993, LDDS merged with Metromedia Comm. Corp. and Comsystems Network Services. For 1993, only the revenues that were received after the merger are included in LDDS's revenues; those preceding the merger are listed individually. LDDS and Wiltel merged January 5, 1995. In May 1995, LDDS changed its name to WorldCom, Inc. WorldCom acquired MFS Intelenet December 31, 1996. On July 1, 2001, WorldCom acquired Intermedia Communications, Inc.

[4] Sprint's revenues were revised for 1998 to exclude enhanced services and to be consistent with revenues reported for 1999.

[5] In July 1986, GTE Sprint and US Telecom merged into US Sprint. United Telecommunications, Inc., then majority owner of US Sprint, purchased the remaining interest from GTE in July of 1992. Effective February 16, 1992, the company's name became Sprint Communications Co.

[6] For the years 1993 - 1999, the RBOC ILEC toll service revenues are included in total ILEC toll revenues.

[7] LCI International Telecom Corp. and USLD Communications, Inc., merged in December of 1997 and filed separate statements for the year. Qwest Communications Corp. merged with LCI and USLD Communications in June of 1998, and each of the three affiliated companies filed a separate revenue statement for 1998.

[8] On January 28, 2002, Global Crossing Holdings, Ltd. and certain subsidiaries and affiliates filed a voluntary petition in the United States Bankruptcy Court for the Southern District of New York and continued in the possession of their assets and the management of their business. Global Crossing's Plan of Reorganization was confirmed by the Bankruptcy Court on December 26, 2002.

[9] VarTec acquired Excel Telecommunications on April 8, 2002.

[10] On April 22, 2002, Williams Communications Group, Inc., the parent company of Williams Communications LLC, filed a voluntary petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code in the U.S. Bankruptcy Court for the Southern District of New York. Effective October 15, 2002 upon completion of its financial restructuring Williams Communications Group, Inc. emerged from Chapter 11 bankruptcy proceedings as Wiltel Communications Group, Inc.

[11] Cincinnati Bell Inc., merged with IXC Communications, Inc. on November 9, 1999 and soon began doing business as Broadwing, Inc. The corporate name was changed from Broadwing back to Cincinnati Bell, Inc. on May 27, 2003 with the sale of the majority of its broadband business to C III Communications, LLC and C III Communications Operations, LLC.

[12] On June 25, 2002, ITC^DeltaCom, Inc. filed a voluntary petition for relief under Chapter 11 of the U.S. Bankruptcy Code in the United States Bankruptcy Court for the District of Delaware. On October 29, 2002, the company consummated a plan of reorganization.

[13] On January 31, 2002, McLeodUSA Incorporated, the parent company, filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for the District of Delaware. On April 16, 2002, McLeodUSA, Inc. emerged from the Bankruptcy court proceeding pursuant to the terms of its amended plan of reorganization.

[14] Data for 1996 were taken from the Annual Report to the Colorado Public Utilities Commission from telecommunications carriers regulated pursuant to §40-15-301 C.R.S.

[15] As part of its process of exiting the U.S. retail voice business, Cable and Wireless plc entered into a definitive agreement on September 16, 2002 to transfer its U.S. retail customer base to a wholly-owned subsidiary of Primus Telecom pending regulatory approval.

[16] ILEC totals are shown separately through 1999 because ILECs primarily carried intraLATA calls, in part because of restrictions imposed on the RBOCs by the 1984 Divestiture agreement. By 2000 most local exchange customers could presubscribe to any carrier for intraLATA toll service and some RBOCs began to receive section 271 approval to provide interLATA toll services.

[17] Includes wireless toll service revenues reported by wireless carriers, toll service revenues reported by CLECs, and toll service revenues reported by non-RBOC ILECs.

[18] Estimated by FCC staff.

Source: The revenue information for the larger long distance telephone companies, shown in Table 1.4, is reported annually to the FCC in response to 47 C.F.R. § 43.21(c). The revenue information for large local exchange telephone companies is based on annual ARMIS (Automated Reporting Management Information System) USOA reports (FCC Reports 43-02). The Commission also collects revenue information on FCC Form 499-A, Telecommunications Reporting Worksheet, and, in previous years, on FCC Form 431, Telecommunications Relay Service Worksheet, and FCC Form 457, Universal Service Worksheet. Revenues for carriers not subject to section 43.21 or ARMIS reports are estimated by FCC staff based on carriers' filings of FCC Forms 431, 457, and 499-A.

Table 9.2
Intrastate, Interstate, and International Toll Revenues
(Dollar Amounts Shown in Millions)

Year	Toll Revenues				End-User Revenues			
	Intrastate 1/	Interstate 2/	International 3/	Total Toll Revenues 4/	Intrastate 1/	Interstate 2/	International 3/	Total Toll Revenues 4/
1980	$12,700	$19,049	$1,586	$33,335			$1,475	
1981	14,632	21,948	2,599	39,180			2,485	
1982	16,457	24,685	2,777	43,919			2,651	
1983	17,612	26,418	2,940	46,970			2,802	
1984	19,077	28,616	3,463	51,156			3,309	
1985	20,408	30,613	3,794	54,815			3,636	
1986	21,340	32,010	4,119	57,468			3,947	
1987	21,563	32,345	4,611	58,519			4,436	
1988	22,900	34,350	5,350	62,600			5,146	
1989	23,850	35,775	6,399	66,024			6,340	
1990	25,622	33,678	7,492	66,792			7,390	
1991	24,090	35,837	8,631	68,558			8,480	
1992	27,667	37,871	10,207	75,744			9,810	
1993	30,950	40,212	11,364	82,525			10,901	
1994	29,815	42,028	12,635	84,478			12,100	
1995	31,519	43,955	14,155	89,629			13,144	
1996	34,181	48,903	16,607	99,691			15,023	
1997	32,859	49,247	18,688	100,793	30,144	43,640	15,409	$89,193
1998	34,699	50,000	20,356	105,055	30,800	44,153	16,654	91,607
1999	33,600	54,590	20,056	108,246	29,976	47,598	15,737	93,311
2000	33,030	56,225	20,361	109,615	28,501	42,980	16,286	87,767
2001	29,530	46,389	23,381	99,301	25,891	36,660	16,751	79,302
2002	25,772	39,725	18,200	83,697	22,122	31,707	13,392	67,222
2003	23,160	37,432	16,597	77,188	18,889	28,088	12,006	58,983

1/ For 1980 through 1989, intrastate toll revenues were estimated as 40% of domestic toll revenues. Domestic toll revenues were calculated as total toll revenues less international revenues. For 1990 and 1991, intrastate toll revenue was estimated as total toll revenue times the percentage of toll reported as intrastate in the U.S. Census Bureau, *Annual Survey of Communications:* (1994 and 1995 editions, respectively.) For 1992 through 1996, intrastate toll revenus was estimated as total toll revenues times the percentage of toll revenues reported as intrastate on FCC Form 431 worksheets.

2/ Interstate toll revenues were estimated as total toll revenues less international and intrastate toll revenues.

3/ International toll figures are from International Bureau, *Trends in the U.S. International Telecommunications Industry* (July 2004) Table 1. 2003 data are preliminary.

4/ For 1980 through 1991, total toll revenue is based on data filed in response to 47 CFR § 43.21(c) and staff estimates of revenues for carriers whose revenues were below the reporting threshold.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2005), except as noted above.

Table 9.3
End-User Toll Revenues
(Dollar Amounts Shown in Millions)

Year	Residential Toll as a Percentage of all End-User Toll Revenues 1/	End-User Toll Revenues 2/	End-User Toll Revenues By Customer Type	
			Residential	Other
1995	46 %	$75,638	$35,103	$40,535
1996	45	82,616	37,543	45,074
1997	46	89,193	40,978	48,215
1998	44	91,607	40,284	51,323
1999	42	93,311	39,466	53,845
2000	38	87,767	33,327	54,440
2001	34	79,302	27,293	52,009
2002	36	67,222	24,110	43,112
2003	37	58,983	22,042	36,941

1/ Staff estimates are based on market segment data in carrier annual reports to shareholders; average household payments to long distance carriers shown in Table 3.2; and residential toll revenues published by the U.S. Census Bureau in the *Service Annual Survey: 2002*, Table 3.3.11, and previous reports.

2/ Toll services are telecommunications services that enable customers to communicate outside of local exchange calling areas. Toll service revenues include revenues from ordinary long distance, subscriber toll-free, operator service, prepaid calling card, long distance private line, satellite services, and other long distance services. End-user toll revenues consist of toll service revenues from end-user customers, governments, non-profits, *de minimis* resellers, and any other customer that does not contribute directly to universal service.

Source: End-user toll revenues for 1997 through 2003 are taken from Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2005), and previous editions. Figures for 1995 and 1996 are staff estimates.

Table 9.4
Number of Toll Service Providers

	TRS Data				TRS & USF Data		FCC Form 499-A Data				
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Carriers That Provide Toll Service 1/											
Toll Carriers											
Interexchange Carriers (IXCs)	83	97	130	149	151	171	178	212	233	229	232
Other Toll Carriers											
Operator Service Providers (OSPs)	35	29	25	27	32	24	15	20	19	18	17
Pre-paid Calling Card Providers	NA	NA	8	16	18	20	18	23	27	27	50
Satellite Service Providers	NA	NA	NA	22	13	13	17	25	34	33	40
Toll Resellers	171	206	260	345	340	388	406	493	558	574	642
Other Toll Service Providers	32	34	30	28	15	31	17	35	69	51	45
Total Toll Service Providers	321	366	453	587	569	647	651	808	940	932	1,026
Fixed Local Service, Payphone, and Mobile Service Filers with Toll Service Revenues	NA	NA	NA	NA	1,537	1,740	1,870	1,678	1,884	1,602	1,678
All Toll Service Providers	NA	NA	NA	NA	2,106	2,387	2,521	2,486	2,824	2,534	2,704

NA - Not available.

1/ Counts of toll carriers represent the numbers of filers that reported telecommunications revenues and that identified themselves using a toll carrier category. Filers that identified themselves as Fixed Local Service, Payphone, and Mobile Service providers were counted as toll providers only if they reported toll service revenues.

Sources: Data filed on FCC Forms 431, 457, and 499-A worksheets. See also: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2005) and *Telecommunications Provider Locator* (March 2005), available at http://www.fcc.gov/wcb/stats.

Table 9.5
Toll Revenues of AT&T, MCI, Sprint, and Other Toll Service Providers
(Dollar Amounts Shown in Millions)

Year	AT&T [1]	MCI [2]	Sprint	Regional Bell Operating Companies	Other Toll Carriers Including Wireless, ILECs, and CLECs [3]	Total Industry Toll Revenues
1984	$34,935	$1,761	$1,052		$13,408	$51,156
1985	36,770	2,331	1,509		14,205	54,815
1986	36,514	3,372	1,141		16,441	57,468
1987	35,219	3,938	2,592		16,770	58,519
1988	35,407	4,886	3,405		18,902	62,600
1989	34,549	6,717	4,320		20,438	66,024
1990	33,880	7,392	5,041		20,479	66,792
1991	34,384	8,266	5,378		20,530	68,558
1992	35,495	10,520	5,658		24,071	75,744
1993	35,731	12,092	6,139		28,563	82,525
1994	37,166	13,936	6,805		26,571	84,478
1995	38,394	16,564	7,277		27,394	89,629
1996	39,264	20,979	7,944		31,504	99,691
1997	39,470	23,047	8,595		29,681	100,793
1998	40,674	22,192	7,994		34,195	105,055
1999	39,964	23,431	9,708		35,143	108,246
2000	38,110	22,554	9,038	$10,233	29,681	109,616
2001	33,942	21,259	8,424	10,557	25,118	99,300
2002	27,531	17,659	7,077	10,374	21,056	83,697
2003	22,814	16,062	6,326	12,042	19,944	77,188

[1] AT&T's revenues include the long distance revenues of Alascom (acquired in 1995) and Teleport Communications Group (including ACC Long Distance Corporation) which merged with AT&T in July of 1998.

[2] LDDS revenues are included beginning in 1992.

[3] Includes the Regional Bell Operating companies 1984 - 1999. Also includes wireless toll revenues reported by wireless carriers and toll revenues reported by competitive local exchange carriers. See Table 9.1

Source: See Notes to Table 9.1.

Table 9.6

Shares of Total Toll Service Revenues
All Long Distance Toll Providers *

Year	AT&T	MCI	Sprint	BellSouth [1]	Qwest [1]	SBC [1]	Verizon [1]	Other Incumbent Local Telephone Companies	All Other Toll Service Providers [2]
				Includes Incumbent Local Exchange Carriers' Operating Companies					
1984	68.3 %	3.4 %	2.1 %					24.2 %	2.0 %
1985	67.1	4.3	2.0					22.2	4.4
1986	63.5	5.9	3.3					22.4	4.9
1987	60.2	6.7	4.4					23.5	5.2
1988	56.6	7.8	5.4					24.1	6.1
1989	52.3	9.5	6.5					22.5	9.1
1990	50.7	11.3	7.5					22.0	8.4
1991	50.2	12.5	7.8					20.6	9.0
1992	47.3	13.9	7.5					17.9	13.4
1993	43.7	14.7	7.4					16.6	17.6
1994	44.4	16.5	8.1					15.9	15.2
1995	42.8	20.4	8.1					12.6	16.0
1996	39.4	20.9	8.0					11.3	20.4
1997	39.2	22.9	8.5					10.2	19.3
1998	38.6	21.1	7.6					9.0	23.7
1999	36.9	21.7	9.0					7.4	25.0
2000	34.8	20.6	8.3	0.4 %	3.1 %	2.7 %	3.1 %	NA	27.1
2001	34.2	21.4	8.5	0.7	3.5	3.1	3.4	NA	25.3
2002	32.9	21.1	8.5	1.0	4.0	3.7	3.7	NA	25.1
2003	30.0	20.8	8.2	1.6 p	3.8	4.9	5.2	NA	25.8

NA - Not applicable

***** Includes incumbent local exchange carriers and competitive local exchange carriers.

[1] Figures reported by RBOC long distance affiliates, which may include both in-region and out-of-region long distance service, and local exchange operating companies for the years 2000 - 2003. Some of the RBOC long distance affiliates' revenues fall below the reporting threshold and are therefore included in the all other long distance carriers' market share.

[2] Includes wireless toll service revenues reported by wireless carriers and toll service revenues reported by competitive local exchange carriers. For 2000 - 2003, also includes non-RBOC ILEC toll service revenues.

Chart 9.2
Market Shares of Toll Service Revenues of the Three Largest Long Distance Toll Providers Including ILECs, CLECs, and Wireless Carriers

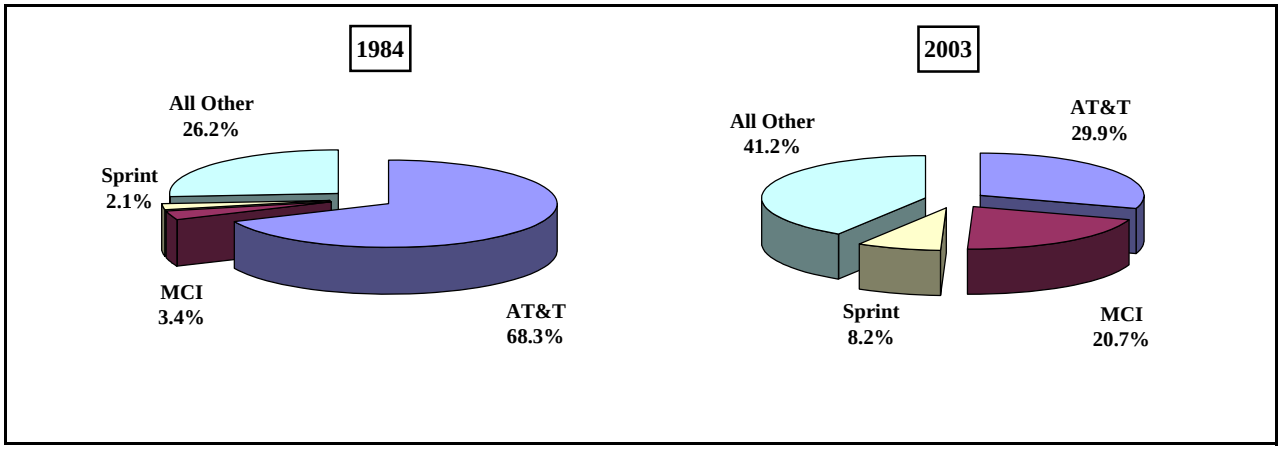
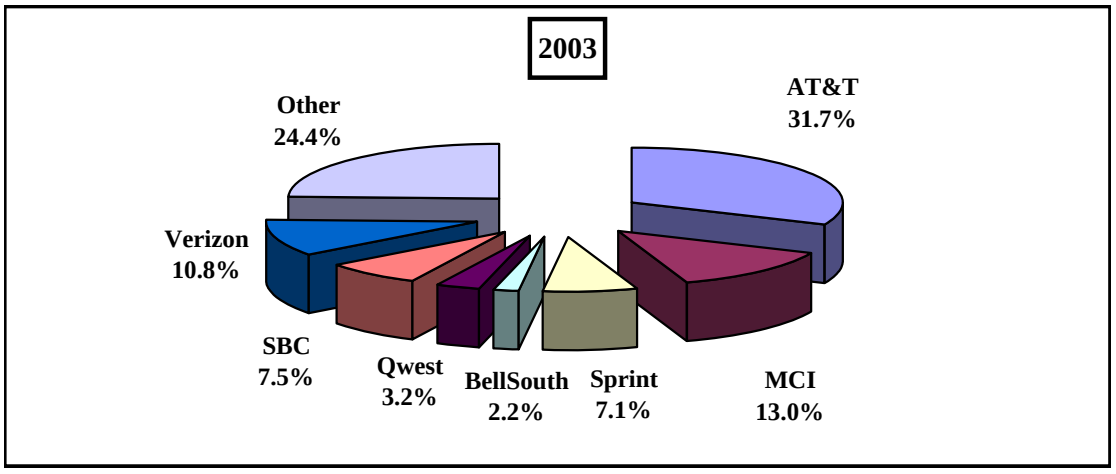


Table 9.7
Residential Household Market Shares
(1995 - 2003)

	AT&T [1]	MCI [2]	Sprint	BellSouth [3]	Qwest [4]	SBC [5]	Verizon [6]	Other [7]
Households [8]								
1995	74.6 %	13.0 %	4.2 %	(7) %	(7) %	(7) %	(7) %	8.2 %
1996	69.9	14.1	5.0	(7)	(7)	(7)	(7)	11.0
1997	67.2	13.2	5.7	(7)	(7)	(7)	(7)	13.8
1998	62.6	15.1	5.7	(7)	(7)	(7)	(7)	16.6
1999	62.5	16.0	6.2	(7)	(7)	(7)	(7)	15.4
2000	51.1	18.0	6.6	0.1	1.6	1.0	4.6	17.0
2001	42.3	18.5	6.8	0.1	2.9	2.6	6.7	20.0
2002	36.7	15.8	7.6	0.2	2.5	3.8	9.3	24.1
2003	31.7	13.0	7.1	2.2	3.2	7.5	10.8	24.4
Direct Dial IntraLATA Minutes								
1995	8.9 %	2.4 %	4.6 %	(7) %	(7) %	(7) %	(7) %	84.1 %
1996	9.5	5.4	4.4	(7)	(7)	(7)	(7)	80.6
1997	13.9	6.7	3.7	(7)	(7)	(7)	(7)	75.7
1998	15.6	8.7	3.8	(7)	(7)	(7)	(7)	71.8
1999	16.9	12.0	3.6	(7)	(7)	(7)	(7)	67.5
2000	17.3	12.8	5.0	1.6	5.0	18.6	18.0	21.7
2001	15.4	13.2	4.8	1.4	4.3	17.9	17.6	25.3
2002	14.0	11.8	4.8	1.1	2.9	18.5	16.3	30.7
2003	10.7	11.4	8.1	0.9	2.7	17.7	13.2	35.4
Direct Dial InterLATA Minutes								
1995	69.5 %	16.1 %	5.8 %	(7) %	(7) %	(7) %	(7) %	8.6 %
1996	62.5	15.9	7.1	(7)	(7)	(7)	(7)	14.5
1997	62.4	14.9	6.5	(7)	(7)	(7)	(7)	16.2
1998	58.4	17.0	6.5	(7)	(7)	(7)	(7)	18.1
1999	53.2	20.9	6.6	(7)	(7)	(7)	(7)	19.3
2000	44.7	22.0	7.3	0.1	1.6	0.5	2.5	21.3
2001	36.3	20.5	7.6	0.1	1.9	1.8	3.6	28.1
2002	31.2	18.1	9.0	0.3	1.6	3.1	5.6	31.0
2003	26.0	16.6	7.9	1.4	1.8	6.6	6.6	32.9

Chart 9.3
Residential Household Market Shares



Notes for Table 9.7

Note: Market shares are estimates based on sample data. Shares for past years have been revised to take into account mergers and acquisitions and changes in methodology.

[1] AT&T Long Distance, Lucky Dog Phone Co. and ACC Long Distance

[2] MCI Long Distance, Telecom USA, Touch 1, TTI National, LDDS WorldCom and WorldCom Network Service

[3] BellSouth Long Distance and BellSouth Public Communications

[4] Qwest and U S WEST Long Distance

[5] Ameritech Communications, Ameritech 800, Pacific Bell, Southwest Long Distance, SBC Long Distance and SNET All Distance

[6] Bell Atlantic Long Distance, NYNEX/Bell Atlantic North, Verizon Select Services and GTE

[7] Until 2000, the regional Bell operating companies are not broken out of the "Other" category.

[8] Each household is assumed to have a single access line (less than 8% of households in the 2003 sample had more than one access line). These lines are allocated across carriers based on the household's primary long distance carrier which is imputed by the provider of the data, TNS Telecoms. In 1995, 1996 and 1999-2003, TNS defined the household's primary long distance carrier. In 1997, a household's primary long distance carrier was determined based on calls made through long distance carriers, and in 1998, a household's primary long distance carrier was determined based on interLATA calls.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor ™, Bill Harvesting ®.*

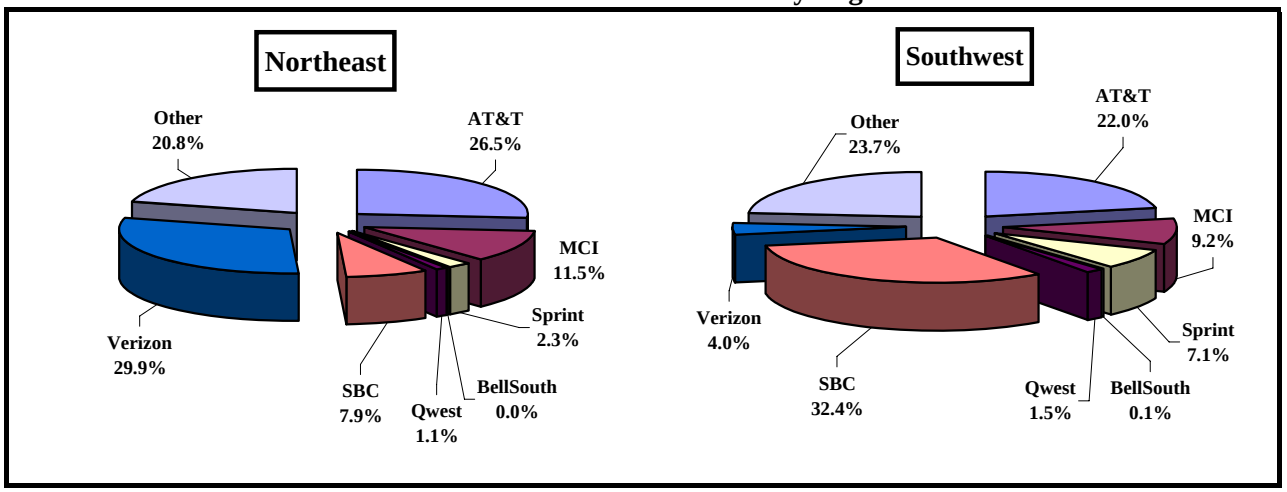
Table 9.8
Residential Household Market Shares
By Region: 2003

Region [1]	AT&T [2]	MCI [3]	Sprint	BellSouth [4]	Qwest [5]	SBC [6]	Verizon [7]	Other [8]	Sample Size
Households									
Southeast	36.1 %	13.1 %	11.2 %	11.0 %	1.8 %	0.1 %	4.8 %	22.0 %	5,447
West	30.3	14.9	6.0	0.0	11.3	0.0	3.9	33.6	4,195
West Coast	29.7	12.5	7.0	0.0	2.0	18.3	11.2	19.3	3,015
Mid-Atlantic	33.3	15.6	6.7	0.0	1.9	0.1	21.8	20.6	3,881
Mid-West	38.1	13.0	6.7	0.0	1.9	4.4	7.5	28.3	4,768
Northeast	26.5	11.5	2.3	0.0	1.1	7.9	29.9	20.8	2,947
Southwest	22.0	9.2	7.1	0.1	1.5	32.4	4.0	23.7	3,339
Total	31.7 %	13.0 %	7.1 %	2.2 %	3.2 %	7.5 %	10.8 %	24.4 %	27,592
Direct Dial IntraLATA Minutes									
Southeast	8.5 %	12.2 %	44.3 %	7.6 %	0.3 %	0.0 %	2.3 %	25.0 %	85,657
West	11.9	18.5	4.1	0.0	20.2	0.0	4.9	40.3	83,934
West Coast	10.2	11.5	1.6	0.0	0.7	42.4	13.7	19.9	136,526
Mid-Atlantic	8.6	7.7	5.2	0.0	1.2	0.2	39.6	37.6	142,092
Mid-West	10.0	8.2	3.7	0.0	0.3	25.6	6.2	46.0	129,980
Northeast	19.6	17.8	0.9	0.0	0.1	8.5	10.0	43.0	93,729
Southwest	7.4	7.4	5.6	0.0	0.0	39.1	2.7	37.8	89,874
Total	10.7 %	11.4 %	8.1 %	0.9 %	2.7 %	17.7 %	13.2 %	35.4 %	761,792
Direct Dial InterLATA Minutes									
Southeast	28.0 %	18.1 %	12.1 %	6.6 %	0.9 %	0.0 %	3.1 %	31.1 %	301,883
West	24.5	21.2	8.1	0.0	6.8	0.0	2.6	36.8	194,162
West Coast	24.8	12.9	7.3	0.0	0.6	17.4	6.0	31.0	178,890
Mid-Atlantic	29.5	22.2	7.2	0.0	2.2	0.0	10.5	28.3	195,761
Mid-West	29.0	14.7	7.5	0.0	1.3	0.2	7.9	39.5	210,084
Northeast	26.6	12.4	2.6	0.0	0.6	7.6	18.1	32.2	137,788
Southwest	16.8	11.5	6.4	0.0	0.3	30.8	2.6	31.5	157,610
Total	26.0 %	16.6 %	7.9 %	1.4 %	1.8 %	6.6 %	6.6 %	32.9 %	1,376,178

Note: Market shares are estimates based on sample data. For footnotes, please see the next page.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor ™* , *Bill Harvesting* ®.

Chart 9.4
Residential Household Market Shares by Region: 2003



Notes for Table 9.8

[1] Southeast: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee

West: Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming

West Coast: California and Nevada

Mid-Atlantic: Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania, Virginia and West Virginia

Mid-West: Illinois, Indiana, Michigan, Ohio and Wisconsin

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island and Vermont

Southwest: Arkansas, Kansas, Missouri, Oklahoma and Texas

[2] AT&T Long Distance, Lucky Dog Phone Co. and ACC Long Distance

[3] MCI Long Distance, Telecom USA, Touch 1, TTI National, LDDS WorldCom and WorldCom Network Service

[4] BellSouth Long Distance and BellSouth Public Communications

[5] Qwest and U S WEST Long Distance

[6] Ameritech Communications, Ameritech 800, Pacific Bell, Southwest Long Distance, SBC Long Distance and SNET All Distance

[7] Bell Atlantic Long Distance, NYNEX/Bell Atlantic North, Verizon Select Services and GTE

[8] Households with any other presubscribed carrier. Note that households for which the presubscribed carrier is unknown or could not be determined have been excluded from the sample.

Table 9.9
Regional Bell Operating Companies' Applications
To Provide In-Region InterLATA Service
(Section 271 Applications)

State	Bell Operating Company	Date Application Resolved
Alabama	BellSouth	09/18/02
Arkansas	SBC	11/16/01
Arizona	Qwest	12/03/03
California	SBC	12/19/02
Colorado	Qwest	12/23/02
Connecticut	Verizon	07/20/01
Delaware	Verizon	09/25/02
District of Columbia	Verizon	03/19/03
Florida	BellSouth	12/19/02
Georgia	BellSouth	05/15/02
Idaho	Qwest	12/23/02
Illinois	SBC	10/15/03
Indiana	SBC	10/15/03
Iowa	Qwest	12/23/02
Kansas	SBC	01/22/01
Kentucky	BellSouth	09/18/02
Louisiana	BellSouth	05/15/02
Maine	Verizon	06/19/02
Maryland	Verizon	03/19/03
Massachusetts	Verizon	04/16/01
Michigan	SBC	09/17/03
Minnesota	Qwest	06/26/03
Mississippi	BellSouth	09/18/02
Missouri	SBC	11/16/01
Montana	Qwest	12/23/02
Nebraska	Qwest	12/23/02
Nevada	SBC	04/14/03
New Hampshire	Verizon	09/25/02
New Jersey	Verizon	06/24/02
New Mexico	Qwest	04/15/03
New York	Verizon	12/22/99
North Carolina	BellSouth	09/18/02
North Dakota	Qwest	12/23/02
Ohio	SBC	10/15/03
Oklahoma	SBC	01/22/01
Oregon	Qwest	04/15/03
Pennsylvania	Verizon	09/19/01
Rhode Island	Verizon	02/22/02
South Carolina	BellSouth	09/18/02
South Dakota	Qwest	04/15/03
Tennessee	BellSouth	12/19/02
Texas	SBC	06/30/00
Utah	Qwest	12/23/02
Vermont	Verizon	04/17/02
Virginia	Verizon	10/30/02
Washington	Qwest	12/23/02
West Virginia	Verizon	03/19/03
Wisconsin	SBC	10/15/03
Wyoming	Qwest	12/23/02

10 Minutes

As in the case of telephone lines, there are several alternative measures of calling volumes. Most subscribers purchase service with unlimited local calling. As a result, most local calls are not metered. Periodic studies have been used within the telephone industry to estimate the number of calls and calling minutes for a variety of purposes. For example, periodic studies of dial equipment minutes (Dems) historically were used to estimate the proportion of calling that is interstate and to allocate costs between interstate and intrastate services. However, Dems are no longer being used for separations purposes because the separations factors are now frozen. Historical data for Dems can be found in the August 2003 issue of *Trends in Telephone Service*.

1. Interstate Switched Access Minutes

Switched access minutes are those minutes transmitted by long distance carriers that also use the distribution networks of local telephone companies, i.e., calls made on private telecommunications networks and on leased lines are excluded. On ordinary long distance calls, minutes are counted both where the call originates and where the call terminates. Access minutes include only the domestic portion of international calls. WATS and toll-free (800/888/877/866) calls are counted only on one end of the call. WATS calls generate access minutes only at the terminating end of the call and toll-free (800/888/877/866) calls generate access minutes only at the originating end of the call; both types of minutes are counted in the terminating minutes because they are billed at the terminating rate. Originating WATS and terminating toll-free minutes are covered under special access arrangements, and hence are not subject to switched access charges. Finally, switched access minutes include time for incomplete calls and setup time.

Table 10.1 and Chart 10.1 show the total number of interstate switched access minutes handled by all long distance carriers starting with mid-1984, when the data first became available. The number of minutes grew steadily from mid-1984 to 2000 stemming from a combination of overall economic growth and price reductions. Since 2001, interstate switched access minutes have declined, due to a number of reasons including substitution of other services.

2. Billed Access Minutes and Calls

Another measure of usage is the number of interLATA billed access minutes and the number of local calls and toll calls. The large incumbent local exchange companies (ILECs) file data on this as part of their Automated Reporting Management Information System (ARMIS) reports. The individual carrier's data can be obtained from the ARMIS Report 43-08 on the ARMIS web page at www.fcc.gov/wcb/armis.

The number of interLATA access minutes is based on bills sent to interexchange carriers. They include total originating and terminating access minutes of use. Where these data are

unavailable, a statistically valid calculation is sometimes used. The number of local calls refers to the number of originating calls completed or unanswered between points both of which are within the local service area of the calling telephone, or total originating calls minus total originating toll calls. The number of toll calls completed refers to the number of completed calls directed to a point outside the local service area of the calling telephone. IntraLATA toll calls completed (originating) consist of the number of completed toll calls carried by the reporting local operating company within a given local access and transport area (LATA) and interLATA toll calls completed (originating) consist of completed calls directed to and carried by interexchange carriers. More detailed definitions can be found on the ARMIS web site.

Table 10.2 shows historical data on the number of local and toll calls and the number of interLATA billed access minutes for the large ILECs reporting to the Commission. Toll calls are further categorized by intraLATA, interLATA interstate and interLATA intrastate. Interstate and intrastate billed access minutes are also shown.

Table 10.1
Interstate Switched Access Minutes
(In Billions)

Year	Period	Access Minutes	Year	Period	Access Minutes	Year	Period	Access Minutes
			1991	First Quarter	79.2	1998	First Quarter	124.0
				Second Quarter	81.9		Second Quarter	131.3
1984	Third Quarter	37.5		Third Quarter	82.6		Third Quarter	130.7
	Fourth Quarter	39.6		Fourth Quarter	84.4		Fourth Quarter	132.8
				Total 1991	**328.0**		**Total 1998**	**518.8**
1985	First Quarter	39.6	1992	First Quarter	85.6	1999	First Quarter	135.6
	Second Quarter	41.5		Second Quarter	86.5		Second Quarter	138.1
	Third Quarter	42.8		Third Quarter	87.9		Third Quarter	138.3
	Fourth Quarter	43.3		Fourth Quarter	89.8		Fourth Quarter	140.3
	Total 1985	**167.1**		**Total 1992**	**349.7**		**Total 1999**	**552.3**
1986	First Quarter	43.0	1993	First Quarter	90.6	2000	First Quarter	142.8
	Second Quarter	44.8		Second Quarter	91.2		Second Quarter	142.9
	Third Quarter	46.7		Third Quarter	93.6		Third Quarter	141.3
	Fourth Quarter	48.5		Fourth Quarter	95.9		Fourth Quarter	139.9
	Total 1986	**183.1**		**Total 1993**	**371.2**		**Total 2000**	**566.9**
1987	First Quarter	51.2	1994	First Quarter	98.7	2001	First Quarter	137.4
	Second Quarter	52.5		Second Quarter	97.9		Second Quarter	136.4
	Third Quarter	55.0		Third Quarter	101.9		Third Quarter	133.0
	Fourth Quarter	57.0		Fourth Quarter	102.9		Fourth Quarter	131.5
	Total 1987	**215.7**		**Total 1994**	**401.4**		**Total 2001**	**538.3**
1988	First Quarter	59.0	1995	First Quarter	105.6	2002	First Quarter	124.8
	Second Quarter	59.6		Second Quarter	106.8		Second Quarter	123.9
	Third Quarter	62.1		Third Quarter	109.0		Third Quarter	119.3
	Fourth Quarter	64.0		Fourth Quarter	110.6		Fourth Quarter	118.1
	Total 1988	**244.6**		**Total 1995**	**431.9**		**Total 2002**	**486.1**
1989	First Quarter	66.2	1996	First Quarter	115.7	2003	First Quarter	114.3
	Second Quarter	68.5		Second Quarter	114.7		Second Quarter	112.2
	Third Quarter	69.7		Third Quarter	117.5		Third Quarter	109.8
	Fourth Quarter	72.6		Fourth Quarter	120.2		Fourth Quarter	107.7
	Total 1989	**277.1**		**Total 1996**	**468.1**		**Total 2003**	**444.0**
1990	First Quarter	74.7	1997	First Quarter	122.1	2004	First Quarter	109.3
	Second Quarter	75.8		Second Quarter	124.4		Second Quarter	106.1
	Third Quarter	77.9		Third Quarter	124.9		Third Quarter	105.1
	Fourth Quarter	79.1		Fourth Quarter	125.8		Fourth Quarter	102.0
	Total 1990	**307.4**		**Total 1997**	**497.3**		**Total 2004**	**422.4**

Source: National Exchange Carrier Association (NECA), MOU/Data/Summary of NECA's Total Pool Results, March 15, 2005. Industry Analysis and Technology Division, Wireline Competition Bureau, *Universal Service Monitoring Report* (October 2004).

Chart 10.1
Interstate Switched Access Minutes
(In Billions)

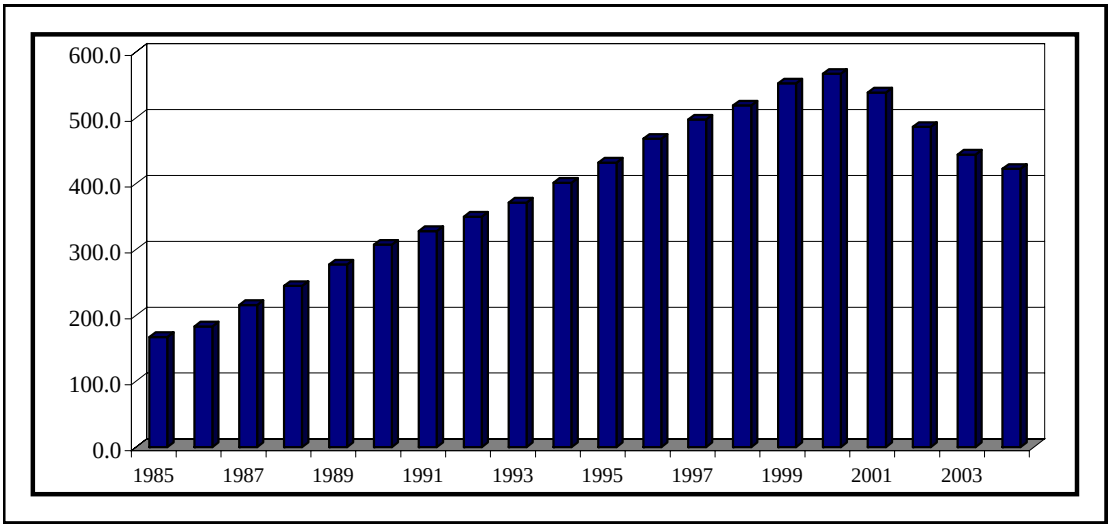


Table 10.2

Telephone Calls and Billed Access Minutes of Large ILECs Reporting to the Commission

Year	Number of Carriers	Number of Telephone Calls (Thousands)						InterLATA Billed Access Minutes (Originating and Terminating) (Thousands)		
			Toll Calls Completed (Originating)							
		Local Calls	Total	IntraLATA	Total InterLATA	InterLATA Interstate	InterLATA Intrastate	Total	Interstate	Intrastate
1984	75	350,391,981	NA	NA	NA	NA	NA	NA	NA	NA
1985	55	365,304,830	NA	NA	NA	NA	NA	NA	NA	NA
1986	57	372,296,473	NA	NA	NA	NA	NA	NA	NA	NA
1987	52	379,864,264	NA	NA	NA	NA	NA	NA	NA	NA
1988	52	379,035,883	67,547,342	18,983,768	48,563,574	36,752,925	11,810,649	NA	NA	NA
1989	51	389,383,322	68,547,451	19,406,222	49,141,229	37,593,867	11,547,362	NA	NA	NA
1990	51	402,492,293	63,359,346	20,263,554	43,095,792	31,888,748	11,207,044	NA	NA	NA
1991	52	416,213,954	67,333,207	23,337,553	43,995,654	32,126,555	11,869,099	405,456,048	305,745,611	99,710,437
1992	54	434,175,743	71,502,090	22,612,572	48,889,518	36,036,032	12,853,486	432,356,515	327,821,281	104,535,234
1993	53	447,473,714	78,077,246	23,757,662	54,319,584	38,746,788	15,572,796	465,270,369	351,022,599	114,247,770
1994	52	465,207,539	83,441,709	23,796,633	59,645,076	43,244,593	16,400,483	500,297,267	374,996,101	125,301,166
1995	53	484,195,345	94,051,667	23,327,801	70,723,866	50,618,771	20,105,095	549,982,263	405,579,546	144,402,717
1996	51	504,131,507	94,905,927	21,376,847	73,529,080	52,677,037	20,852,043	598,563,946	438,772,880	159,791,066
1997	51	522,025,261	98,424,977	21,844,925	76,580,052	54,563,338	22,016,714	647,813,708	469,638,292	178,175,416
1998	52	544,288,934	96,934,938	18,469,316	78,465,622	55,974,210	22,491,412	690,523,467	497,138,901	193,384,566
1999	52	553,853,237	102,245,666	18,116,240	84,129,426	57,806,961	26,322,465	739,042,459	519,272,905	219,769,554
2000	52	536,523,081	105,978,596	16,157,912	89,820,684	59,212,055	30,608,629	792,263,836	535,011,649	257,252,187
2001	52	515,335,676	97,849,444	14,970,794	82,878,650	53,319,645	29,559,005	745,754,124	504,026,109	241,728,015
2002	52	459,302,668	89,997,279	13,339,232	76,658,047	47,968,133	28,689,914	668,089,004	451,602,651	216,486,353
2003	54	424,617,408	81,217,462	11,880,332	69,337,130	43,385,840	25,951,290	612,805,855	414,701,831	198,104,024

NA - Not available.

Note: Between 1987 and 1988, there were significant changes in the definitions of many of the items in this table due to the implementation of a new Uniform System of Accounts (USOA) in 1988. In 1992, some of these definitions were further refined when the reporting mechanism of the carriers was changed for the filing of 1991 data. For these reasons, there may be inconsistencies in the data reported for 1984-1987 compared to what was reported for 1988, and also between 1988 and subsequent years, as the carriers were adapting to the new USOA and automated reporting requirements.

Source: Industry Analysis and Technology Division, Wireline Competition Division, *Statistics of Communications Common Carriers* 2003/2004 Edition (October 2004). Totals may be understated because certain data pertaining to the carriers included in this table are not available.

11 Mobile Wireless Service

1. Industry Statistics

There are several measures of mobile wireless subscribers. While there are some differences in these data series, they all show significant growth in mobile wireless subscribers. The Commission collects data on the number of wireless subscribers by state as part of the local competition and broadband data gathering program (FCC Form 477). This program requires providers of wireless service to file information twice each year for each state in which they have at least 10,000 subscribers. The Commission also collects data on wireless numbers as part of the data collection on Numbering Resources and Utilization/Forecasting (FCC Form 502). Wireless numbers are a good proxy for wireless subscribers since wireless carriers generally assign only one subscriber per number. The CTIA-The Wireless Association™ periodically publishes summary information on the industry. CTIA can be found on the Internet at www.wow-com.com.

Table 11.1 and Chart 11.1 show three measures of mobile wireless subscribers over time. In 1984 there were 92,000 subscribers, as compared with nearly 170 million subscribers as of June 30, 2004. Table 11.2 shows the number of wireless subscribers per state as of June 30, 2004 using data from FCC Form 477. Table 11.3 provides some information on the industry that is published by CTIA. As seen in Table 11.3, the industry's annual revenues rose from less than a half billion in 1984 to over $49 billion the first half of 2004. The table also shows that the industry had more than 212 thousand employees as of June 30, 2004, as compared to about 1,000 employees in 1984; and there was a significant drop in the average monthly bill from $96.83 at the end of 1987 to $49.49 as of June 2004.

2. Residential Wireless Usage

The summary of residential wireless usage presented in Tables 11.4 through 11.7 is based on calling data captured from a sample of consumer bills by TNS Telecoms. (For additional information on TNS Telecoms, see Appendix B.) While these tables were constructed similar to those describing wireline toll calling patterns in Section 14, the two sets of tables should be compared with caution. In most cases, wireless bills contain an itemization of all calls, rather than just toll calls.[1] As a result, these tables characterize wireless local and long-distance calling where the tables in Section 14 only cover wireline long distance. To provide some frame of reference, wireline distinctions have been imposed on the wireless calling data. That is, we distinguished wireless interstate from intrastate calls.

Table 11.4 shows the estimated distribution of residential wireless calls and minutes over time. The vast majority of both calls and minutes were intrastate. Over time, however, this

[1] In fact, since this analysis generally includes all outgoing wireless calls, many of the calls in the data are not traditional voice calls. The data include calls made to access voicemail, move data, access the Internet, send faxes or text messages, etc.

pattern is clearly weakening. The number of interstate calls rose from 10% to 15% of the total from 2000 to 2003, and interstate minutes rose from 16% to 26% of the total over the same period. We note that these figures are estimates, based on sample data, and the relative distribution may vary in actuality for specific carriers.

A snapshot of the duration of wireless calls is presented in Table 11.5. In the 2003 data shown, wireless calls were brief. Almost 75% of intrastate wireless calls (which, again, represent the vast majority of calls) were less than 2 minutes. Like wireline traffic, the data are extremely right-skewed such that a handful of long calls pull the average call duration far above the median duration. As a measure of central tendency, the median is more representative of the duration of a typical call than is the average in this context.

Tables 11.6 and 11.7 show when wireless intrastate and interstate calls, respectively, were made. Over the years shown, patterns in intrastate calls have changed only slightly. Nighttime minutes gained share from daytime minutes (from about 28% to about 30%), and weekend use rose as a share of total use. Traffic was heaviest on Friday and lightest on Sunday.

Patterns in interstate calling were different. Unlike intrastate calls, interstate calls were generally most likely on the weekend, particularly on Sunday. Further, though both types of calls were more likely during the day than at night, relative to intrastate calls, interstate calls were allocated more to the nighttime hours. Nonetheless the same forces acting to change intrastate calling patterns over the years shown seem to be having similar, yet more dramatic effects on interstate calling. For example, like intrastate calls, the share of interstate minutes made at night increased, but from about 38% of the total in 2001 to 41% in 2003. Similarly, weekend interstate minutes rose from about 35% in 2001 to 41% in 2003.

Table 11.1

Measures of Mobile Wireless Telephone Subscribers

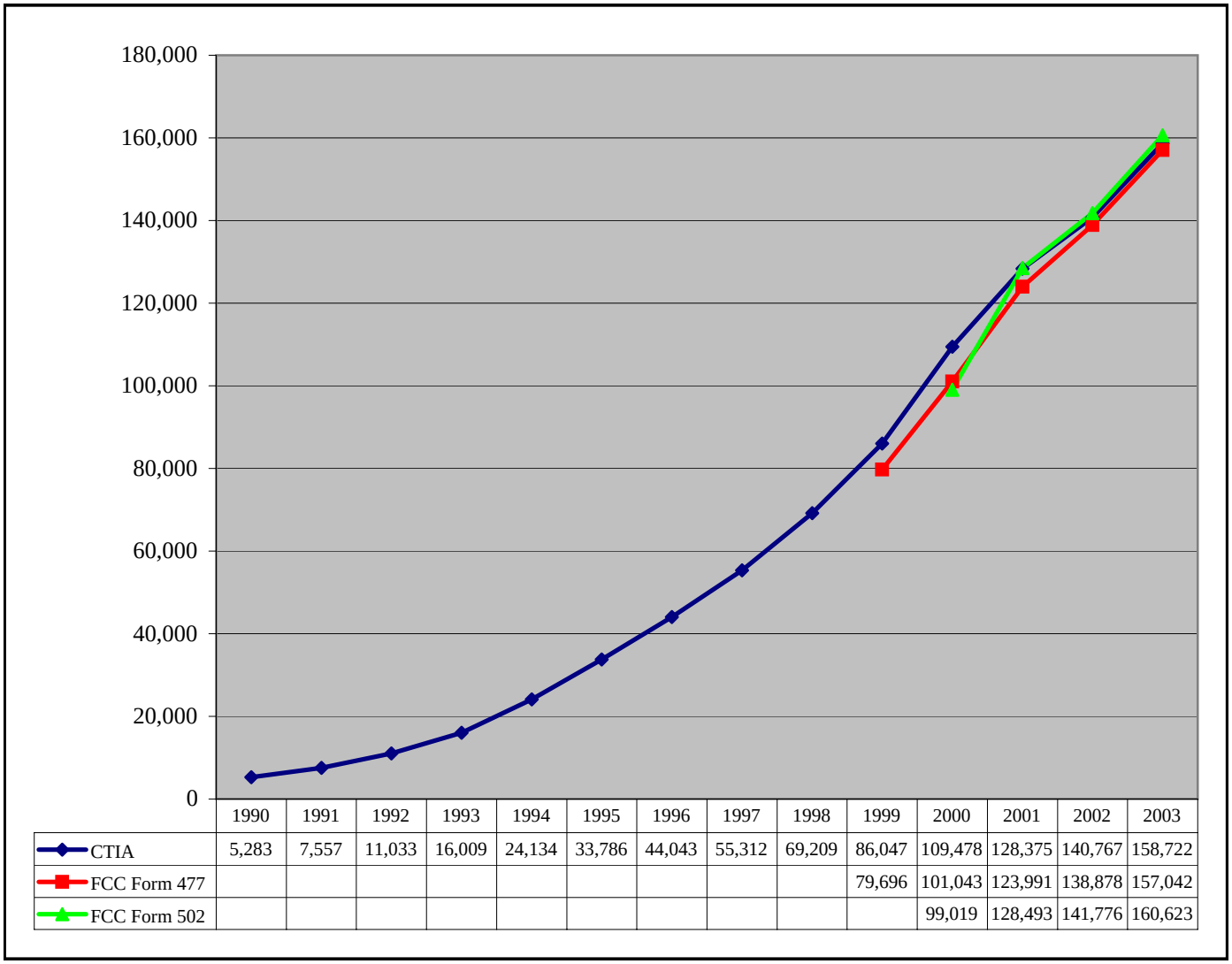
	Subscribers (In Thousands)		
	Reported by CTIA	FCC Form 477 [1]	FCC Form 502 [2]
1984 December	92		
1985 June	204		
December	340		
1986 June	500		
December	682		
1987 June	884		
December	1,231		
1988 June	1,609		
December	2,069		
1989 June	2,692		
December	3,509		
1990 June	4,369		
December	5,283		
1991 June	6,390		
December	7,557		
1992 June	8,893		
December	11,033		
1993 June	13,067		
December	16,009		
1994 June	19,284		
December	24,134		
1995 June	28,154		
December	33,786		
1996 June	38,195		
December	44,043		
1997 June	48,706		
December	55,312		
1998 June	60,831		
December	69,209		
1999 June	76,285		
December	86,047	79,696	
2000 June	97,036	90,643	
December	109,478	101,043	99,019
2001 June	118,398	114,029	111,734
December	128,375	123,991	128,493
2002 June	134,561	130,751	136,927
December	140,767	138,878	141,776
2003 June	148,066	147,624	151,861
December	158,722	157,042	160,623
2004 June	169,467	167,313	169,987

[1] See Industry Analysis and Technology Division, Wireline Competition Bureau,*Local Telephone Competition: Status as of December 31, 2003* (June 2004). Carriers with under 10,000 lines in a state are not required to report, so FCC Form 477 data are likely to undercount the total number of wireless lines in service.

[2] See current and previous editions of Industry Analysis and Technology Division, Wireline Competition Bureau, *Numbering Resource Utilization in the United States.*

Source: CTIA-The Wireless Association™ and FCC Forms 477 and 502. FCC Form 502 contains assigned wireless numbers.

Chart 11.1
Mobile Wireless Telephone Subscribers
As of December
(Subscribers in Thousands)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
CTIA	5,283	7,557	11,033	16,009	24,134	33,786	44,043	55,312	69,209	86,047	109,478	128,375	140,767	158,722
FCC Form 477										79,696	101,043	123,991	138,878	157,042
FCC Form 502											99,019	128,493	141,776	160,623

Table 11.2
Mobile Wireless Telephone Subscribers [1]

State	June 2004		Subscribers										Percent Change Jun 03 - Jun 04
	Carriers [1]	Percent Resold [2]	1999	2000		2001		2002		2003		2004	
			Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	
Alabama	10	8 %	1,080,410	1,253,084	1,386,294	1,930,631	1,979,075	2,027,845	1,987,254	2,100,557	2,242,108	2,301,847	10 %
Alaska	4	5	165,221	169,892	*	218,424	240,216	242,133	267,630	*	303,184	307,323	NA
American Samoa	*	*	0	0	0	0	0	0	0	0	0	*	NA
Arizona	14	6	1,125,321	1,624,668	1,855,115	2,018,410	2,171,021	2,412,998	2,520,058	2,643,952	2,843,061	3,079,657	16
Arkansas	7	5	719,919	715,467	743,928	891,275	970,127	1,130,302	1,156,345	1,351,291	1,296,901	1,376,564	2
California	15	6	8,544,941	12,283,369	12,710,520	14,184,625	15,052,203	16,007,376	17,575,105	18,892,619	20,360,454	21,575,797	14
Colorado	10	4	1,552,718	1,654,989	1,856,075	1,983,405	2,145,816	2,247,166	2,358,748	2,426,929	2,554,731	2,727,910	12
Connecticut	6	4	1,077,089	1,136,618	1,277,123	1,418,367	1,639,914	1,577,873	1,694,110	1,791,944	1,928,988	2,064,204	15
Delaware	6	5	270,848	275,219	371,014	389,284	412,611	433,059	438,196	503,353	543,526	593,452	18
Dist. of Columbia	6	9	346,681	333,815	354,735	382,457	404,489	415,399	472,832	520,182	513,102	555,958	7
Florida	12	15	5,158,079	4,983,478	6,369,985	7,536,670	8,937,063	8,607,715	9,482,349	10,252,348	10,855,430	11,916,615	16
Georgia	12	7	2,538,983	2,687,238	2,754,784	4,076,119	4,149,717	4,300,831	4,497,576	4,709,288	4,940,091	5,332,517	13
Guam	*	*	*	*	0	*	*	*	*	*	*	*	NA
Hawaii	5	1	288,425	454,364	524,291	543,283	595,721	640,247	689,857	732,262	771,023	819,262	12
Idaho	10	11	271,436	296,066	344,564	398,781	444,864	500,693	536,064	572,406	605,488	653,779	14
Illinois	10	6	3,922,482	4,309,660	5,143,767	5,621,044	5,631,172	5,409,370	6,476,683	6,834,217	7,183,989	7,529,966	10
Indiana	8	10	1,318,975	1,717,378	1,715,074	1,781,247	1,921,356	2,032,290	2,390,567	2,456,509	2,642,810	2,844,568	16
Iowa	11	9	774,773	975,629	832,106	861,382	1,087,608	1,157,580	1,239,384	1,250,305	1,342,931	1,445,711	16
Kansas	12	4	669,472	724,024	801,293	901,225	956,050	1,061,171	1,117,277	1,195,230	1,261,242	1,345,160	13
Kentucky	11	9	911,700	999,544	1,026,334	1,176,756	1,405,043	1,505,982	1,456,705	1,595,290	1,812,657	2,000,459	25
Louisiana	10	11	1,227,106	1,294,693	1,306,457	1,677,292	1,920,740	2,187,811	2,190,613	2,365,224	2,470,146	2,547,153	8
Maine	6	1	187,003	283,640	359,786	399,616	427,313	457,835	466,896	524,246	568,159	610,533	16
Maryland	8	5	1,634,625	2,013,058	2,298,651	2,446,818	2,614,216	2,684,441	2,913,943	3,108,086	3,319,605	3,575,747	15
Massachusetts	6	4	1,892,014	2,228,169	2,649,130	2,753,685	2,996,816	3,289,934	3,375,726	3,506,039	3,741,975	3,919,139	12
Michigan	13	8	3,512,813	3,423,535	3,551,719	4,071,091	4,238,399	4,758,538	4,674,980	4,889,269	5,114,259	5,430,637	11
Minnesota	12	10	1,550,411	1,595,560	1,851,430	2,014,317	2,153,857	2,254,895	2,415,033	2,564,783	2,677,472	2,823,079	10
Mississippi	9	12	673,355	509,038	786,577	993,781	1,048,061	1,106,700	1,112,765	1,232,750	1,324,160	1,411,277	14
Missouri	11	6	1,855,452	1,848,775	1,767,411	1,937,684	2,106,599	2,246,430	2,289,831	2,515,325	2,691,255	2,859,953	14
Montana	*	*	*	*	*	*	279,349	291,429	315,512	343,160	373,947	*	NA
Nebraska	9	2	576,296	600,885	659,380	712,685	791,799	838,568	867,810	900,744	937,184	984,355	9
Nevada	8	7	750,335	825,163	684,752	766,581	842,155	895,586	984,486	1,077,380	1,216,838	1,319,684	22
New Hampshire	8	12	280,508	309,263	387,264	445,181	492,390	529,795	525,689	598,504	648,788	686,746	15
New Jersey	6	3	2,289,181	2,750,024	3,575,130	3,896,778	4,283,643	4,531,457	4,587,640	5,392,240	5,799,417	6,326,459	17
New Mexico	10	13	363,827	395,111	443,343	619,582	660,849	735,107	780,855	828,869	859,408	939,091	13
New York	11	5	4,833,816	5,016,524	5,918,136	6,749,096	7,429,249	7,915,526	8,937,683	8,829,070	9,453,613	9,939,759	13
North Carolina	12	8	2,536,068	2,730,178	3,105,811	3,377,331	3,767,598	4,610,120	4,094,715	4,305,521	4,554,723	4,875,916	13
North Dakota	*	*	*	*	*	*	*	245,578	*	*	*	*	NA
Ohio	14	6	3,237,786	3,278,960	4,150,498	4,255,934	4,739,795	4,887,376	5,212,204	5,659,459	5,817,211	6,188,081	9
Oklahoma	13	4	826,637	979,513	1,124,214	1,200,234	1,288,357	1,366,475	1,440,970	1,574,588	1,614,191	1,724,505	10
Oregon	10	5	914,848	1,082,425	1,201,207	1,268,909	1,399,279	1,473,883	1,682,343	1,682,036	1,778,936	1,894,285	13
Pennsylvania	10	6	2,767,474	3,850,372	4,129,186	4,378,216	4,849,085	4,987,067	5,258,844	5,681,653	6,073,573	6,420,037	13
Puerto Rico	6	8	*	1,090,005	757,613	1,374,747	1,128,736	1,136,619	1,516,808	1,401,599	1,631,266	1,698,702	21
Rhode Island	6	4	279,304	313,550	355,889	401,805	456,059	463,636	515,547	527,366	567,331	615,398	17
South Carolina	11	15	1,137,232	1,236,338	1,392,586	1,502,345	1,752,457	1,830,516	1,896,369	2,041,541	2,149,480	2,337,367	14
South Dakota	5	7	*	*	*	*	278,646	292,210	325,114	344,825	365,211	382,906	11
Tennessee	13	5	1,529,054	1,876,444	1,985,851	2,251,208	2,510,978	2,660,068	2,674,566	2,800,735	2,974,512	3,171,487	13
Texas	20	7	5,792,453	6,705,423	7,548,537	8,294,338	9,156,187	9,650,715	10,133,280	10,776,234	11,327,700	12,091,134	12
Utah	9	4	643,824	692,006	750,244	833,492	919,002	970,854	1,052,522	1,094,563	1,154,992	1,229,029	12
Vermont	*	3	*	*	*	*	*	*	*	*	*	*	NA
Virgin Islands	*	25	*	0	0	*	*	*	*	*	*	*	NA
Virginia	11	3	2,262,567	2,447,687	2,708,342	3,059,420	3,270,165	3,429,450	3,753,106	3,879,582	4,147,182	4,392,319	13
Washington	11	6	1,873,475	2,144,767	2,286,082	2,493,214	2,706,030	2,849,043	2,869,784	3,102,750	3,377,193	3,567,896	15
West Virginia	10	5	241,265	347,916	392,384	452,036	498,811	549,722	576,503	579,983	675,257	713,657	23
Wisconsin	11	8	1,525,818	1,342,908	1,698,520	2,008,679	2,229,389	2,523,956	2,396,562	2,533,215	2,723,985	2,831,645	12
Wyoming	5	2	127,634	*	*	173,939	194,665	168,232	191,939	276,344	295,706	277,658	0
Nationwide	85	7 %	79,696,083	90,643,058	101,043,219	114,028,928	123,990,857	130,751,459	138,878,293	147,623,734	157,042,082	167,313,001	13 %

NA -- Not Applicable.

* Data withheld to maintain firm confidentiality.

[1] Carriers with under 10,000 subscribers in a state were not required to report.

[2] Percentage of mobile wireless subscribers receiving their service from a mobile wireless reseller.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, Local Telephone Competition: Status as of June 30, 2004 (December 2004).

Table 11.3
Mobile Wireless Telephone Service: Industry Survey Results
(As Reported by CTIA-The Wireless Association™)

	Estimates for Total Industry							
	Subscribers	Six-Month Revenues (Thousands)	Roamer Service Revenues (Thousands)	Cell Sites	Employees	Cumulative Capital Investment (Thousands)	Average Monthly Bill	Average Minutes of Use per Month
1984 December	91,600	$178,085		346	1,404	$354,760		
1985 June	203,600	176,231		599	1,697	588,751		
December	340,213	306,197		913	2,727	911,167		
1986 June	500,000	360,585		1,194	3,556	1,140,163		
December	681,825	462,467		1,531	4,334	1,436,753		
1987 June	883,778	479,514		1,732	5,656	1,724,348		
December	1,230,855	672,005		2,305	7,147	2,234,635	$96.83	
1988 June	1,608,697	886,075		2,789	9,154	2,589,589	95.00	
December	2,069,441	1,073,473	$89,331	3,209	11,400	3,274,105	98.02	
1989 June	2,691,793	1,406,463	121,368	3,577	13,719	3,675,473	85.52	
December	3,508,944	1,934,132	173,199	4,169	15,927	4,480,142	89.30	
1990 June	4,368,686	2,126,362	192,350	4,768	18,973	5,211,765	83.94	
December	5,283,055	2,422,458	263,660	5,616	21,382	6,281,596	80.90	
1991 June	6,380,053	2,653,505	302,329	6,685	25,545	7,429,739	74.56	
December	7,557,148	3,055,017	401,325	7,847	26,327	8,671,544	72.74	
1992 June	8,892,535	3,633,285	436,725	8,901	30,595	9,276,139	68.51	
December	11,032,753	4,189,441	537,146	10,307	34,348	11,262,070	68.68	
1993 June	13,067,318	4,819,259	587,347	11,551	36,501	12,775,967	67.31	
December	16,009,461	6,072,906	774,266	12,824	39,775	13,956,356	61.48	140
1994 June	19,283,306	6,519,030	778,116	14,740	45,606	16,107,921	58.65	
December	24,134,421	7,710,890	1,052,666	17,920	53,902	18,938,677	56.21	119
1995 June	28,154,414	8,740,352	1,120,337	19,833	60,624	21,709,286	52.42	
December	33,785,661	10,331,614	1,422,233	22,663	68,165	24,080,466	51.00	119
1996 June	38,195,466	11,194,247	1,314,943	24,802	73,365	26,707,046	48.84	
December	44,042,992	12,440,724	1,465,992	30,045	84,161	32,573,522	47.70	125
1997 June	48,705,553	13,134,551	1,392,440	38,650	97,039	37,454,294	43.86	
December	55,312,293	14,351,082	1,581,765	51,600	109,387	46,057,910	42.78	117
1998 June	60,831,431	15,286,660	1,584,891	57,674	113,111	50,178,812	39.88	
December	69,209,321	17,846,515	1,915,578	65,887	134,754	60,542,774	39.43	136
1999 June	76,284,753	19,368,304	1,922,416	74,157	141,929	66,782,827	40.24	
December	86,047,003	20,650,185	2,163,001	81,698	155,817	71,264,865	41.24	185
2000 June	97,035,925	24,645,365	1,971,625	95,733	159,645	76,652,358	45.15	
December	109,478,031	27,820,655	1,911,356	104,288	184,449	89,624,387	45.27	255
2001 June	118,397,734	30,905,721	1,727,058	114,059	186,317	99,728,965	45.56	
December	128,374,512	34,410,513	2,209,387	127,540	203,580	105,030,101	47.37	380
2002 June	134,561,370	36,707,086	1,846,267	131,350	186,956	118,418,677	47.42	
December	140,766,842	39,801,101	2,049,245	139,338	192,410	126,922,347	48.40	427
2003 June	148,065,824	41,384,171	1,825,243	147,719	187,169	134,147,049	49.46	
December	158,721,981	46,239,922	1,941,024	162,986	205,629	145,866,914	49.91	507
2004 June	169,467,393	49,275,671	2,015,780	174,368	212,368	156,700,380	49.49	

NA - Not available.

Source: CTIA-The Wireless Association™.

Table 11.4
Distribution of Residential Wireless Calls and Minutes [1]

Type	2000	2001	2002	2003
Calls				
Intrastate	85 %	83 %	81 %	80 %
Interstate	10	12	14	15
Others [2]	5	5	5	5
Total Calls in Sample	229,329	327,295	495,825	539,798
Minutes				
Intrastate	81 %	76 %	72 %	71 %
Interstate	16	22	26	26
Others [2]	2	2	2	3
Total Minutes in Sample	592,253	944,135	1,605,977	1,793,375

Note: Individual figures may not add to totals due to rounding.

[1] Outgoing, itemized calls only.

[2] Inter-, intrastate status could not be determined.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™, Bill Harvesting®*.

Table 11.5
Duration of Residential Wireless Calls: 2003 [1]

Duration of Call (Minutes)	Intrastate	Interstate	All Calls
1	51.2 %	39.6 %	49.5 %
2	22.5	19.1	22.0
3	8.4	7.2	8.3
4	4.5	4.5	4.5
5	2.9	3.3	3.0
6	2.0	2.7	2.1
7	1.4	2.2	1.6
8	1.1	2.0	1.2
9	0.9	1.7	1.0
10	0.7	1.5	0.8
11-15	2.0	5.4	2.5
16-20	0.9	3.2	1.3
21-25	0.5	2.1	0.8
26-30	0.3	1.5	0.5
31-45	0.4	2.3	0.7
46-60	0.1	0.9	0.2
> 60	0.1	0.8	0.2
Average Duration	2.9	6.2	3.4
Median Duration	1.0	2.0	2.0
Sample Size	426,727	71,245	497,972

Note: Individual figures may not add to totals due to rounding.

[1] Outgoing, itemized calls only. All seven-digit dialed calls are considered intrastate. 800-type calls and calls for which a cross-state distinction could not be made were excluded from this analysis.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™, Bill Harvesting®* .

Table 11.6
Distribution of Residential Intrastate Wireless Minutes By Day and Time [1]

2003

Day	7:00 AM - 6:59 PM	7:00 PM - 6:59 AM	Total
Monday	9.8 %	4.2 %	14.0 %
Tuesday	9.9	4.2	14.2
Wednesday	9.8	4.4	14.2
Thursday	10.5	4.4	14.9
Friday	11.1	4.3	15.3
Saturday	10.9	3.9	14.8
Sunday	8.4	4.3	12.6
Total	70.3 %	29.7 %	100.0 %

Calls in sample = 426,727.

2002

Day	7:00 AM - 6:59 PM	7:00 PM - 6:59 AM	Total
Monday	9.6 %	4.2 %	13.8 %
Tuesday	9.8	4.5	14.3
Wednesday	10.0	4.4	14.5
Thursday	10.1	4.5	14.7
Friday	10.8	4.5	15.3
Saturday	10.9	4.1	15.0
Sunday	8.3	4.1	12.4
[1] Outgoing, itemiz	69.6 %	30.4 %	100.0 %

Calls in sample = 395,592.

2001

Day	7:00 AM - 6:59 PM	7:00 PM - 6:59 AM	Total
Monday	10.3 %	3.7 %	14.0 %
Tuesday	10.8	4.2	14.9
Wednesday	10.8	4.2	15.0
Thursday	10.9	4.3	15.2
Friday	11.9	4.3	16.1
Saturday	10.2	3.7	13.9
Sunday	7.2	3.6	10.8
Total	72.0 %	28.0 %	100.0 %

Calls in sample = 267,383.

Note: Individual figures may not add to totals due to rounding.

[1] Outgoing, itemized calls only. All seven-digit dialed calls are considered intrastate. 800-type calls and calls for which a cross-state distinction could not be made were excluded from this analysis.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™, Bill Harvesting®.*

Table 11.7
Distribution of Residential Interstate Wireless Minutes By Day and Time [1]

2003

Day	7:00 AM - 6:59 PM	7:00 PM - 6:59 AM	Total
Monday	6.4 %	5.5 %	11.9 %
Tuesday	6.3	5.6	11.9
Wednesday	6.5	5.8	12.3
Thursday	6.3	5.9	12.2
Friday	6.3	4.7	11.0
Saturday	13.6	5.7	19.3
Sunday	13.6	7.9	21.5
Total	59.0 %	41.0 %	100.0 %

Calls in sample = 71,245.

2002

Day	7:00 AM - 6:59 PM	7:00 PM - 6:59 AM	Total
Monday	6.3 %	5.7 %	12.0 %
Tuesday	6.3	5.8	12.1
Wednesday	6.1	6.1	12.2
Thursday	6.3	5.5	11.8
Friday	6.2	4.9	11.1
Saturday	13.1	5.3	18.4
Sunday	14.7	7.6	22.3
[1] Outgoing, itemiz	59.0 %	41.0 %	100.0 %

Calls in sample = 61,480.

2001

Day	7:00 AM - 6:59 PM	7:00 PM - 6:59 AM	Total
Monday	7.5 %	5.3 %	12.8 %
Tuesday	7.1	5.6	12.7
Wednesday	8.1	5.3	13.4
Thursday	7.8	5.5	13.3
Friday	7.5	4.9	12.4
Saturday	11.1	4.7	15.8
Sunday	12.5	7.1	19.6
Total	61.6 %	38.4 %	100.0 %

Calls in sample = 33,026.

Note: Individual figures may not add to totals due to rounding.

[1] Outgoing, itemized calls only. All seven-digit dialed calls are considered intrastate. 800-type calls and calls for which a cross-state distinction could not be made were excluded from this analysis.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™, Bill Harvesting®.*

12 Price Indices for Telephone Services

The Bureau of Labor Statistics (BLS) collects a variety of information on telephone service as part of three separate programs -- the Consumer Price Index (CPI), the Producer Price Index (PPI), and the Consumer Expenditure Survey. They can be found on the Internet at www.bls.gov. The following material illustrates the range of information available from price indices.

1. Long-Term Trends in Price Indices

A price index for telephone service was first published in 1935. Since that time, telephone prices have tended to increase at a slower pace than most other prices. Table 12.1 shows long-term changes in the consumer price indices for all items, all services, telephone services, each of the seven major categories that currently constitute the overall CPI, and several services that are often characterized as being public utilities. Chart 12.1 shows the CPI telephone services trend as compared to the CPI all items trend from 1953 through 2004.

2. Comprehensive Price Indices

The CPI index of telephone services is based on a market basket intended to represent the telephone-related expenditures of a typical urban household. It includes local, long distance, and cellular services. The annual rates of change are shown in Table 12.2 and the associated chart for the overall CPI (which measures the impact of inflation on consumers) and the CPI for telephone services. Beginning in 1987, the CPI for all items has consistently been higher than the CPI for telephone services as shown in Table 12.2. In addition, Table 12.2 shows the gross domestic product chain-type price index (which measures inflation throughout the economy) prepared by the Department of Commerce's Bureau of Economic Analysis. Chart 12.2 shows the annual percentage changes for the overall CPI and CPI for telephone services.

3. Price Indices for Local Service

The CPI index of local telephone charges is based on a broadly defined market basket that includes: monthly service charges, message unit charges, leased equipment, installation, service enhancements (such as tone dialing and call waiting), taxes, and subscriber line charges. In contrast, the PPI index of monthly residential rates is much more narrowly defined. It is based only on monthly service charges for residential service, optional touch-tone service, and subscriber line charges. It excludes taxes, charges for special services such as call waiting, and all other expenditures. The annual rates of change for these indices of local costs are presented in Table 12.3 and Chart 12.3.

4. Price Indices for Long Distance Service

Price indices are available for intrastate toll and interstate toll services. These series are also presented in Table 12.3 and Chart 12.3.

5. Price-Index Limitations

Price indices are less reliable when industries are changing rapidly. For example, in 1992, long distance carriers began to increase basic rates while greatly expanding their range of discount offerings. The fixed market basket of toll calls measured for the CPI did not fully reflect these discounts. In 1995, BLS made major changes to the PPI telephone series, and there are no data after July 1995 comparable with prior data. Because of these sorts of difficulties, measures of average revenues are sometimes used as alternatives to price indices.

Table 12.1
Long-Term Changes for Various Price Indices
(Annual Rates of Change)

	1954 - 2004	1994 - 2004
CPI All Items	4.0 %	2.5 %
CPI All Services	4.9	3.2
CPI Telephone Services [1]	1.7	-0.1
CPI Major Categories:		
- Food and Beverages	*	2.6
- Housing	*	2.7
- Apparel	2.1	-1.0
- Transportation	3.7	2.0
- Medical Care	5.9	3.9
- Recreation	*	1.6
- Other Goods and Services	*	4.4
CPI Public Transportation	5.0	2.0
CPI Utility (Piped) Gas Service	5.2	5.2
CPI Electricity	3.3	1.2
CPI Water and Sewerage Maintenance	5.6	3.5
CPI Postage	4.7	2.8

* Series not established until after 1954.
[1] The CPI telephone service index was revised in December of 1997.

Source: Bureau of Labor Statistics.

Chart 12.1
CPI All Items and CPI Telephone Services
Base Periods: 1982-84 = 100

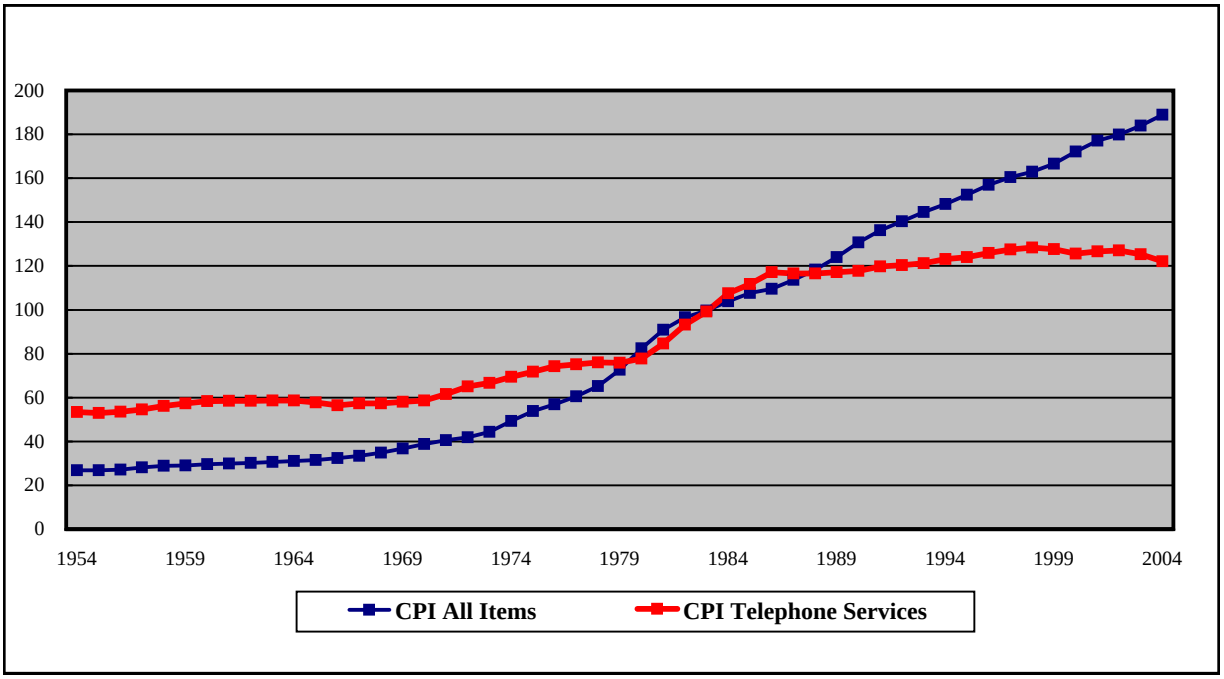


Table 12.2
Annual Changes in Major Price Indices

	GDP Chain-Type Price Index	CPI - All Items	CPI - Telephone Services
1978	5.6 %	9.0 %	0.9 %
1979	3.2	13.3	0.7
1980	-0.2	12.5	4.6
1981	2.5	8.9	11.7
1982	-1.9	3.8	7.2
1983	4.5	3.8	3.6
1984	7.2	3.9	9.2
1985	4.1	3.8	4.7
1986	3.5	1.1	2.7
1987	3.4	4.4	-1.3
1988	4.1	4.4	1.3
1989	3.5	4.6	-0.3
1990	1.9	6.1	-0.4
1991	-0.2	3.1	3.5
1992	3.3	2.9	-0.3
1993	2.7	2.7	1.8
1994	4.0	2.7	0.7
1995	2.5	2.5	1.2
1996	3.7	3.3	2.1
1997	4.5	1.7	0.2
1998	4.2	1.6	0.3 *
1999	4.5	2.7	0.4
2000	3.7	3.4	-2.3
2001	0.8	1.6	1.3
2002	1.9	2.4	0.2
2003	3.0	1.9	-2.7
2004	NA	3.3	-2.5

NA - Not Available.
Note: Data reflect the percent change from December of the previous year through December of year shown.
* The CPI telephone service index was revised in December of 1997.
Sources: Bureau of Labor Statistics and Bureau of Economic Analysis.

Chart 12.2
Percent Change in CPI All Items and CPI Telephone Services

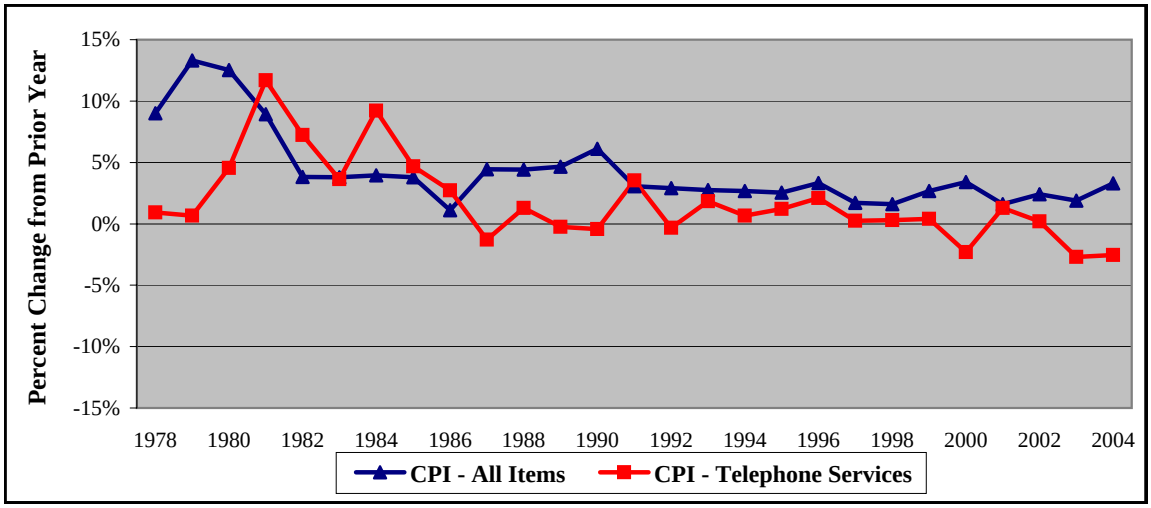


Table 12.3
Annual Changes in Price Indices for Local and Long Distance Telephone Services

	Local Residential Service		Toll Service [1]			
			Interstate		Intrastate	
	CPI	PPI	CPI	PPI	CPI	PPI
1978	1.4 %	3.1 %	-0.7 %	0.0 %	1.3 %	0.1 %
1979	1.7	1.6	-0.8	-0.9	0.1	-0.7
1980	7.0	7.1	3.4	5.5	-0.6	2.3
1981	12.6	15.6	14.6	15.9	6.2	8.0
1982	10.8	9.0	2.7	3.9	4.2	1.7
1983	3.1	0.2	1.4	0.0	7.4	3.9
1984	17.2	10.4	-4.3	-5.1	3.6	3.8
1985	8.9	12.4	-3.7	-3.0	0.6	2.1
1986	7.1	8.9	-9.4	-10.0	0.3	-3.5
1987	3.3	2.6	-12.4	-11.8	-3.0	-3.0
1988	4.5	4.6	-4.2	-2.1	-4.2	-3.8
1989	0.6	1.9	-1.3	-1.7	-2.6	0.5
1990	1.0	1.5	-3.7	-0.1	-2.2	-2.2
1991	5.1	2.1	1.3	-1.3	-1.5	-2.6
1992	0.5	-0.2	-1.3	1.0	-2.4	1.3
1993	1.0	0.8	6.5	3.8	0.2	-1.1
1994	-0.3	0.7	5.4	6.1	-1.0	-1.4
1995	2.6	[2]	0.1	[2]	-3.8	[2]
1996	0.9	0.2	3.7	0.7	6.1	0.9
1997	1.0	0.2	-4.3	7.8	2.8	-4.3
1998	1.3	-0.1	-0.8	-0.4	1.5	-3.7
1999	2.8	0.2	-0.7	2.3	-1.6	-2.7
2000	5.5	1.6	-11.2	-4.3	-6.0	0.1
2001	4.5	2.6	-2.0	-9.4	-1.7	1.7
2002	5.3	1.6	-5.9	-18.4	-6.1	-0.3
2003	2.6	2.0	-10.9	-2.5	-9.4	-12.5
2004	1.1	0.2 [3]	-8.7	1.1 [3]	-6.6	-2.3 [3]

Note: Data reflect the percent change from December of the previous year through December of the year shown.

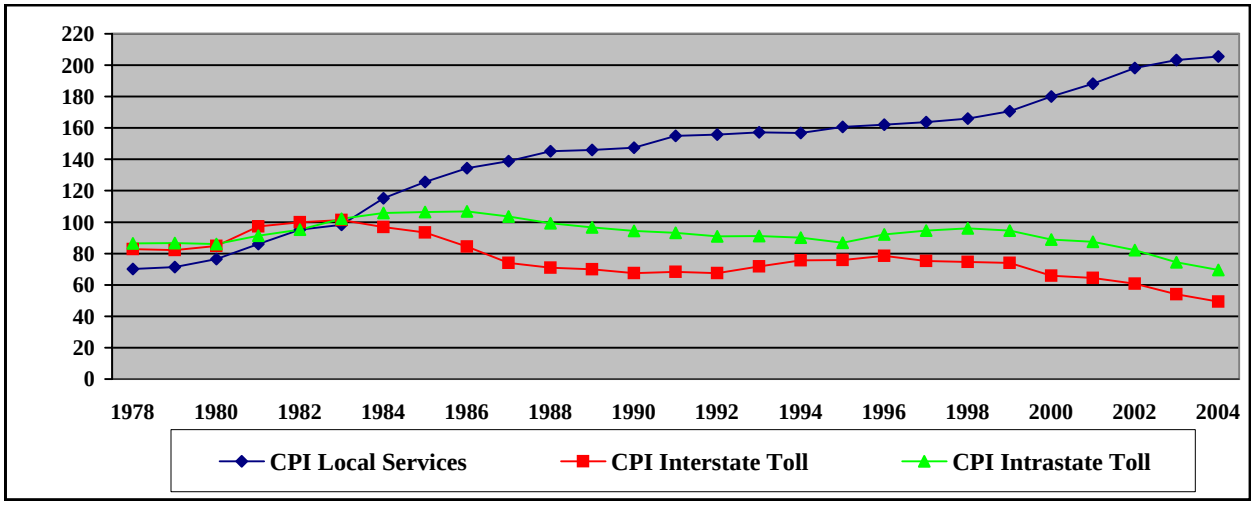
[1] The CPI toll indices represent rates for households. Through 1994, PPI toll indices represent rate changes for both business and residential consumers. Since 1995, PPI indices reflect rates for residential customers.

[2] The PPI telephone indices were revised in June of 1995. The series are not comparable.

[3] Preliminary and subject to revision.

Source: Bureau of Labor Statistics.

Chart 12.3
CPI Telephone Service Price Indices
Base Periods: 1982-1984 = 100



13 Price Levels

1. Local Rates

The price indices maintained by the Bureau of Labor Statistics indicate percentage changes in the price of telephone services. BLS does not publish actual rate levels. Calculations of average rates are based on surveys by FCC staff. These surveys use the same sampling areas and weights used by BLS in constructing the Consumer Price Index.

Table 13.1 presents average local rates for residential customers in urban areas. In October 2004 the monthly charge was $24.31, while the average charge for connecting phone service was $42.59.

Table 13.2 presents average local rates for a business with a single phone line in an urban area. In October 2004, the representative monthly charge was $43.58 while the charge for connecting phone service was $74.17.

Table 13.3 presents the average local rate for a residential phone line from 1940 to 2003. The table shows, after adjusting for inflation, the price of a local exchange line declined from 1940 through the early 1980s. Inflation adjusted local rates have risen since then, principally because of the addition of subscriber line charges. These charges concurrently raised local rates and lowered toll rates.

2. Long Distance Rates

Table 13.4 contains measures of average revenue per minute (ARPM) for long distance calls. Estimates of ARPM are often used interchangeably with estimates of the average price. From 1984 to 2003 the cost of long distance calling dropped from 32 cents per minute to 8 cents per minute. The average price of 8 cents per minute represents a mix of international calling (20 cents per minute) and domestic interstate calling (7 cents per minute). The decline in prices since 1984 is more than 80% after adjusting for the impact of inflation.

Chart 13.1 shows that on a per minute basis, the cost of access and of contributing to universal service support has declined over time. These declines account for much of the decrease in interstate toll rates.

Table 13.1
Average Residential Rates for Local Service in Urban Areas, 1986 - 2004
(As of October 15)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 [1]	2004 [2]
Representative Monthly Charge [3] [4]	$12.58	$12.44	$12.32	$12.30	$12.36	$13.03	$13.05	$13.16	$13.19	$13.62	$13.71	$13.67	$13.75	$13.77	$13.64	$14.49	$14.38	$14.54	$14.53
Subscriber Line Charges	2.04	2.66	2.67	3.53	3.55	3.56	3.55	3.55	3.55	3.54	3.54	3.53	3.52	3.58	4.50	5.05	5.74	5.86	5.81
Additional Monthly Charge for Touch-Tone Service	1.57	1.52	1.54	1.52	1.33	1.06	0.97	0.94	0.77	0.44	0.30	0.25	0.10	0.09	0.06	0.04	[4]	[4]	[4]
Taxes, 911, and Other Charges	1.51	1.56	1.58	1.70	2.00	2.12	2.15	2.29	2.31	2.41	2.40	2.42	2.39	2.48	2.57	3.03	3.94	4.12	3.97
Total Monthly Charge	**$17.70**	**$18.18**	**$18.11**	**$19.05**	**$19.24**	**$19.77**	**$19.72**	**$19.95**	**$19.81**	**$20.01**	**$19.95**	**$19.88**	**$19.76**	**$19.93**	**$20.78**	**$22.62**	**$24.07**	**$24.75**	**$24.31**
Basic Connection Charge [4]	$45.63	$44.04	$42.94	$43.06	$43.06	$42.00	$41.50	$41.38	$41.28	$40.91	$41.11	$41.04	$41.24	$41.26	$41.45	$40.02	$39.83	$39.22	$39.26
Additional Connection Charge for Touch-Tone Service	1.34	1.31	1.55	1.76	1.77	1.27	1.22	1.23	0.85	0.23	0.23	0.17	0.12	0.12	0.12	0.12	[4]	[4]	[4]
Taxes, 911, and Other Charges	2.28	2.20	2.11	2.44	2.32	2.30	2.29	2.30	2.33	2.44	2.36	2.46	2.38	2.57	2.53	2.81	1.33	3.32	3.32
Total Connection Charge	**$49.25**	**$47.55**	**$46.60**	**$47.26**	**$47.15**	**$45.57**	**$45.01**	**$44.92**	**$44.46**	**$43.58**	**$43.70**	**$43.67**	**$43.74**	**$43.95**	**$44.10**	**$42.95**	**$41.16**	**$42.54**	**$42.59**
Additional Charge if Drop Line and Connection Block Needed	NA	NA	$6.04	$6.07	$6.89	$6.89	$6.50	$7.29	$6.74	$5.90	$5.74	$5.65	$5.64	$5.86	$5.84	$5.84	$5.85	$12.13	$12.45
Lowest-Cost Inside Wiring Maintenance Plan	$0.58	$0.85	$0.89	$1.07	$1.07	$1.20	$1.25	$1.31	$1.45	$1.52	$1.78	$1.68	$2.22	$2.66	$3.03	$3.62	$3.62	$3.64	$3.98

NA - Not Available.

[1] Revised.

[2] Subject to revision.

[3] Rates are based on flat-rate service where available, and measured/message service with one hundred five-minute, same-zone, business-day calls elsewhere. As of 2001, all 95 cities in the *Urban Rates Survey* offered flat-rate residential service, which made measuring the cost of such calls unnecessary.

[4] Beginning in 2002, additional monthly charges for touch-tone service are included in the monthly charge.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service* (March 2005).

Table 13.2
Average Local Rates for Businesses with a Single Line in Urban Areas, 1989 - 2004
(As of October 15)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 [1]	2004 [2]
Monthly Representative Service Charge [3]	$31.06	$30.97	$32.29	$32.45	$32.70	$32.25	$32.48	$32.58	$32.76	$32.44	$32.41	$32.18	$31.88	$30.86	$30.65	$32.42
Subscriber Line Charges	3.55	3.57	3.57	3.56	3.57	3.57	3.57	3.54	3.54	3.54	3.52	4.39	4.91	5.63	5.76	5.72
Extra for Touch-Tone Service [4]	2.43	2.35	1.84	1.71	1.67	1.21	0.97	0.82	0.38	0.32	0.25	0.19	0.18	[4]	[4]	[4]
Taxes, 911, and Other Charges	4.21	4.32	4.42	4.57	4.63	4.61	4.79	4.87	4.99	4.97	5.03	5.04	5.45	5.47	5.55	5.62
Total Monthly Charge	**$41.25**	**$41.21**	**$42.12**	**$42.29**	**$42.57**	**$41.64**	**$41.80**	**$41.81**	**$41.67**	**$41.27**	**$41.21**	**$41.80**	**$42.43**	**$41.95**	**$41.97**	**$43.75**
Monthly Charge for Flat-Rate Service	$33.04	$33.29	$34.12	$34.06	$34.85	$34.39	$34.45	$34.42	$34.68	$34.39	$33.73	$33.45	$32.02	$32.92	$33.17	$32.81
Subscriber Line Charges	3.65	3.69	3.70	3.70	3.70	3.70	3.69	3.61	3.61	3.56	3.50	4.35	4.77	5.77	6.03	5.84
Extra for Touch-Tone Service [4]	2.12	2.11	1.87	1.84	1.76	1.12	1.00	0.89	0.53	0.49	0.47	0.43	0.39	[4]	[4]	[4]
Taxes, 911, and Other Charges	4.90	4.98	5.22	5.34	5.50	5.36	5.58	5.55	5.58	5.63	5.49	5.68	5.98	8.16	7.91	7.57
Total Monthly Charge for Flat-Rate Service	**$43.71**	**$44.07**	**$44.91**	**$44.94**	**$45.81**	**$44.57**	**$44.71**	**$44.47**	**$44.39**	**$44.07**	**$43.20**	**$43.90**	**$43.15**	**$46.85**	**$47.12**	**$46.21**
Number of Sample Cities with Flat-Rate Service	59	56	54	54	54	53	53	53	53	54	54	54	56	52	52	53
Monthly Charge for Measured/Message Service	$16.18	$16.17	$16.76	$16.55	$16.60	$16.74	$17.06	$17.26	$17.28	$17.16	$17.06	$16.92	$17.16	$17.56	$17.21	17.59
200 Five-Minute Same-Zone Business-Day Calls	16.11	16.19	16.70	17.23	17.57	17.38	17.15	17.10	17.18	17.15	17.24	17.63	17.56	16.78	17.17	19.49
Subscriber Line Charges	3.54	3.55	3.55	3.54	3.55	3.55	3.54	3.51	3.51	3.53	3.52	4.39	4.90	5.56	5.65	5.66
Extra for Touch-Tone Service [4]	2.48	2.39	1.87	1.73	1.68	1.22	0.98	0.83	0.39	0.33	0.25	0.20	0.19	[4]	[4]	[4]
Taxes, Including 911 Charges	4.41	4.53	4.56	4.77	4.86	4.83	5.01	5.13	5.22	5.19	5.28	5.32	5.76	4.71	4.78	4.90
Total Monthly Charge for Measured/Message Service	**$42.72**	**$42.83**	**$43.44**	**$43.82**	**$44.26**	**$43.72**	**$43.75**	**$43.84**	**$43.57**	**$43.35**	**$43.35**	**$44.45**	**$45.57**	**$44.61**	**$44.82**	**$47.65**
Number of Sample Cities with Measured/Message Service	83	83	84	84	84	87	87	86	85	85	85	85	85	86	85	85
Cost of a Five-Minute Same-Zone Business-Day Call	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.09	$0.10	$0.09	$0.09	$0.09	$0.10
Basic Connection Charge	$71.05	$71.36	$72.75	$72.55	$71.41	$69.88	$67.87	$68.47	$68.67	$65.83	$67.87	$67.77	$67.04	$67.29	$67.23	$67.24
Additional Connection Charge for Touch-Tone Service [4]	1.70	1.89	1.13	1.19	1.17	0.92	0.27	0.17	0.17	0.12	0.12	0.12	0.12	[4]	[4]	[4]
Taxes, Including 911 Charges	4.06	4.15	4.32	4.33	4.25	4.13	4.17	4.20	4.45	4.13	4.53	4.40	4.69	5.09	6.95	6.93
Total Connection Charge	**$76.81**	**$77.40**	**$78.20**	**$78.07**	**$76.83**	**$74.93**	**$72.31**	**$72.85**	**$73.29**	**$70.09**	**$72.55**	**$72.29**	**$71.86**	**$72.39**	**$74.18**	**$74.17**
Additional Charge if Drop Line and Connection Block Needed	$5.92	$7.87	$6.90	$6.83	$6.64	$6.49	$7.28	$6.98	$6.54	$6.54	$6.65	$6.62	$6.62	$6.52	$13.43	$13.76
Lowest-Cost Inside Wiring Maintenance Plan	$1.78	$1.91	$2.05	$2.03	$2.08	$2.26	$2.39	$2.63	$2.84	$3.04	$3.53	$3.92	$4.86	$4.73	$4.65	$5.25

Note: Details may not add to totals due to rounding.

[1] Revised.

[2] Subject to revision.

[3] Rates are based on flat-rate service where available, and measured/message service with 200 five-minute, same-zone, business-day calls elsewhere.

[4] Beginning in 2002, additional monthly charges for touch-tone service are included in the monthly charge.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau,*Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service* (March 2005).

Table 13.3
Average Rate for a Residential Access Line

	Consumer Price Index	Average Rate for a Residential Access Line	
	All Goods and Services (1982-1984 = 100)	Survey Rate	Restated in 2003 Dollars
1940	14.0	$3.67	$48.23
1941	14.7	3.67	45.94
1942	16.3	3.64	41.09
1943	17.3	3.64	38.71
1944	17.6	3.66	38.26
1945	18.0	3.67	37.52
1946	19.5	3.67	34.63
1947	22.3	3.70	30.53
1948	24.1	3.91	29.85
1949	23.8	4.02	31.08
1950	24.1	4.29	32.75
1951	26.0	4.48	31.70
1952	26.5	4.62	32.08
1953	26.7	4.93	33.97
1954	26.9	5.10	34.88
1955	26.8	5.19	35.63
1956	27.2	5.24	35.45
1957	28.1	5.28	34.57
1958	28.9	5.36	34.13
1959	29.1	5.51	34.84
1960	29.6	5.55	34.50
1961	29.9	5.61	34.52
1962	30.2	5.62	34.24
1963	30.6	5.65	33.97
1964	31.0	5.66	33.59
1965	31.5	5.67	33.12
1966	32.4	5.64	32.03
1967	33.4	5.60	30.85
1968	34.8	5.61	29.66
1969	36.7	5.68	28.48
1970	38.8	5.76	27.32
1971	40.5	6.04	27.44
1972	41.8	6.38	28.08
1973	44.4	6.69	27.72
1974	49.3	7.08	26.42
1975	53.8	7.32	25.03
1976	56.9	7.81	25.26
1977	60.6	8.07	24.50
1978	65.2	8.31	23.45
1979	72.6	8.40	21.29
1980	82.4	$8.61	$19.23
1981	90.9	9.16	18.54
1982	96.5	10.18	19.41
1983	99.6	13.58	25.09
1984	103.9	15.18	26.88
1985	107.6	16.26	27.81
1986	109.6	17.70	29.72
1987	113.6	18.18	29.45
1988	118.3	18.11	28.17
1989	124.0	19.05	28.27
1990	130.7	19.24	27.09
1991	136.2	19.77	26.71
1992	140.3	19.72	25.86
1993	144.5	19.95	25.40
1994	148.2	19.81	24.60
1995	152.4	20.01	24.16
1996	156.9	19.95	23.40
1997	160.5	19.88	22.79
1998	163.0	19.76	22.31
1999	166.6	19.93	22.01
2000	172.2	20.78	22.20
2001	177.1	22.62	23.50
2002	179.9	24.07	24.62
2003	184.0	24.75	24.75

Sources: Averages for 1940 through 1982 are from an AT&T local rate survey and represent January 1 rates. These averages exclude taxes and are for rotary service including the cost of a telephone. See *Reference Book of Rates, Price Indices and Expenditures for Telephone Service*, Wireline Competition Bureau, October 1995 and July 2004. Starting in 1983, averages are from the *Urban Rates Survey* and represent October 15 rates. These averages include taxes and are for touch tone service but do not include telephone rental charges or any unbundled inside wiring maintenance plan charges.

Table 13.4
Average Revenue per Minute

	Consumer Price Index	Average Revenue Per Minute for Interstate and International Calls	
	All Goods and Services (1982-1984 = 100)		Restated in 2003 Dollars
1930	16.7	$0.27	$3.03
1931	15.2	0.27	3.26
1932	13.7	0.26	3.52
1933	13.0	0.28	3.89
1934	13.4	0.27	3.74
1935	13.7	0.27	3.57
1936	13.9	0.25	3.33
1937	14.4	0.22	2.77
1938	14.1	0.21	2.80
1939	13.9	0.22	2.86
1940	14.0	0.21	2.76
1941	14.7	0.21	2.60
1942	16.3	0.22	2.44
1943	17.3	0.21	2.24
1944	17.6	0.22	2.25
1945	18.0	0.21	2.17
1946	19.5	0.20	1.86
1947	22.3	0.19	1.58
1948	24.1	0.19	1.42
1949	23.8	0.19	1.46
1950	24.1	0.19	1.47
1951	26.0	0.20	1.42
1952	26.5	0.20	1.41
1953	26.7	0.21	1.43
1954	26.9	0.22	1.52
1955	26.8	0.23	1.58
1956	27.2	0.23	1.58
1957	28.1	0.24	1.56
1958	28.9	0.24	1.52
1959	29.1	0.24	1.53
1960	29.6	0.24	1.50
1961	29.9	0.25	1.53
1962	30.2	0.25	1.54
1963	30.6	0.25	1.49
1964	31.0	0.25	1.48
1965	31.5	0.24	1.40
1966	32.4	0.24	1.38
1967	33.4	0.24	1.34
1968	34.8	0.24	1.25
1969	36.7	0.24	1.20

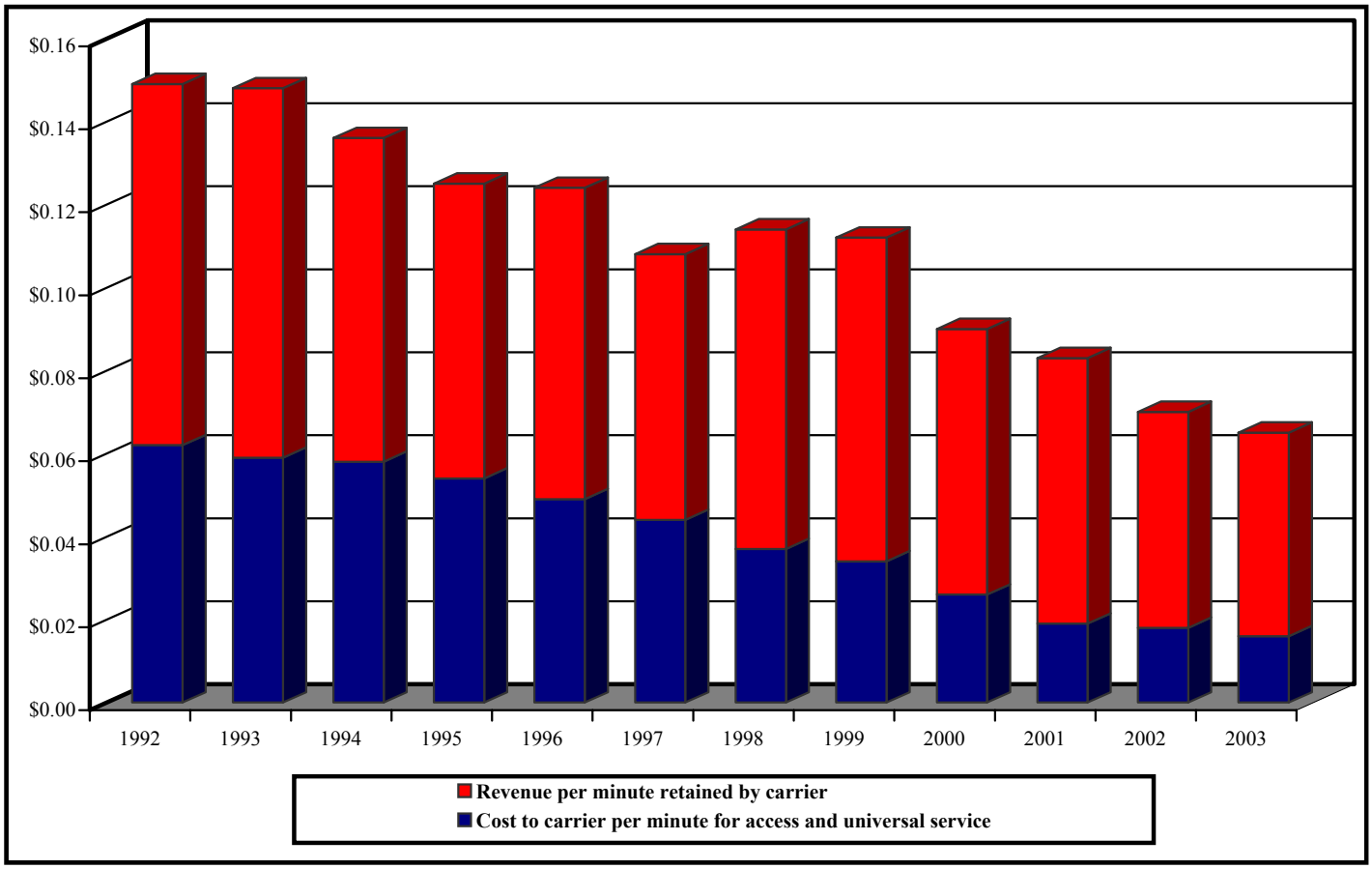
	Consumer Price Index	Average Revenue Per Minute for Interstate and International Calls				
		Interstate and International Calls		International Calls 1/	Interstate Calls	
	All Goods and Services (1982-1984 = 100)		Restated in 2003 Dollars			Net of Access and Universal Service Cost
1970	38.8	$0.23	$1.09	$2.43	$0.20	
1971	40.5	0.25	1.11	2.35	0.22	
1972	41.8	0.24	1.07	2.31	0.21	
1973	44.4	0.25	1.05	2.29	0.22	
1974	49.3	0.26	0.96	2.25	0.22	
1975	53.8	0.27	0.94	2.23	0.24	
1976	56.9	0.29	0.92	2.20	0.25	
1977	60.6	0.28	0.86	2.18	0.25	
1978	65.2	0.29	0.81	2.09	0.25	
1979	72.6	0.29	0.74	1.76	0.26	
1980	82.4	0.30	0.67	1.34	0.27	
1981	90.9	0.33	0.66	1.21	0.31	
1982	96.5	0.34	0.65	1.09	0.32	
1983	99.6	0.35	0.64	1.09	0.33	
1984	103.9	0.32	0.57	1.05	0.30	
1985	107.6	0.31	0.53	1.01	0.29	
1986	109.6	0.28	0.47	0.97	0.26	
1987	113.6	0.25	0.40	0.99	0.22	
1988	118.3	0.23	0.36	1.02	0.21	
1989	124.0	0.22	0.32	1.02	0.19	
1990	130.7	0.20	0.28	1.00	0.17	
1991	136.2	0.20	0.27	1.02	0.15	
1992	140.3	0.19	0.25	1.01	0.15	$0.09
1993	144.5	0.19	0.25	1.02	0.15	0.09
1994	148.2	0.18	0.22	0.93	0.14	0.08
1995	152.4	0.17	0.20	0.91	0.12	0.07
1996	156.9	0.16	0.19	0.76	0.12	0.08
1997	160.5	0.15	0.17	0.69	0.11	0.06
1998	163.0	0.14	0.16	0.58	0.11	0.08
1999	166.6	0.14	0.16	0.54	0.11	0.08
2000	172.2	0.12	0.13	0.52	0.09	0.06
2001	177.1	0.10	0.11	0.35	0.08	0.06
2002	179.9	0.09	0.09	0.28	0.07	0.05
2003	184.0	0.08	0.08	0.20	0.07	0.05

Note: Data for some prior years have been revised.

1/ Starting in 1992, billed revenue per minute for international service differs in Table 6.1 and Table 13.4. Data in Table 6.1 are calculated using all U.S. billed minutes and revenues. Data for Table 13.4 represent charges for most U.S. billed calls that originate or terminate in the United States. International-to-international revenues and reorigination, country-beyond and country-direct minutes are not included in this table.

Sources: Estimates for 1930 through 1981 are based on information in AT&T's *Long Lines Statistics*, 1930-1963, 1946-1970, and 1960-1981, and appear to represent data for the conterminous U.S. only. Data prior to 1946 may not be comparable. Data for 1982 and 1983 were estimated using BLS price index changes. Data for 1984 through 1991 were supplied by AT&T. Starting with 1992, data are from the Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2005), available at www.fcc.gov/wcb/stats. For 1970 through 1991, interstate revenue per minute was estimated using the combined interstate and international revenue per minute estimates shown in the table, and international revenue and revenue per minute data in Table 1 and Table 2 of *Trends in the International Telecommunications Industry*, July 2004.

Chart 13.1
Revenue per Minute for Interstate Calls



Item	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Revenue per minute retained by carrier	$0.09	$0.09	$0.08	$0.07	$0.08	$0.06	$0.08	$0.08	$0.06	$0.06	$0.05	$0.05
Cost to carrier per minute for access and universal service	$0.06	$0.06	$0.06	$0.05	$0.05	$0.04	$0.04	$0.03	$0.03	$0.02	$0.02	$0.02

14 Residential Wireline Usage

Bill Harvesting® data collected by TNS Telecoms provides information on actual usage in the residential telecom market as collected from the actual telecommunications bills of households. TNS Telecoms (TNS), a telecommunications market information firm, conducts nationwide surveys and Bill Harvesting® on a quarterly basis from over 120,000 households each year. These surveys, in which households are asked to mail copies of their phone bills for one month to TNS, are called Bill Harvesting studies. The company has donated databases containing information on residential phone usage to the Commission.

The Bill Harvesting data reflect calls itemized on residential telephone bills for wireline service. Thus, 800 and 800-like calls made from the residence are not included, nor are collect calls made from the residence. In contrast, 800 and 800-like calls received, and shown on the household monthly bill, are included, as are collect calls received.

Table 14.1 shows the percentage of residential wireline long distance telephone usage that is intrastate, interstate and international. In 2003, 34% of residential toll phone calls were interstate as opposed to 45% of minutes. Table 14.2 shows the average number of toll minutes on residential phone bills that are intrastate, interstate and international from 1995-2003.

Table 14.3 shows the distribution of residential wireline long distance calls by call duration. The average interstate residential call lasts about nine minutes, although over one-third of interstate toll calls last one minute or less. Tables 14.4 and 14.5 show the duration and the average distance (sometimes called length of haul) of residential wireline intrastate and interstate long distance calls, respectively. The average distance of an interstate toll call is 684 miles, as opposed to 51 miles for an intrastate toll call.

Table 14.6 shows the percentage of residential wireline long distance minutes by day of week and time of day. In the 2003 survey, 41% of residential wireline minutes were on weekdays between 7:00 a.m. and 7:00 p.m., and 32% of residential wireline minutes were on weekends.

Table 14.1
Distribution of Residential Wireline Toll Calls and Minutes

Type	1995	1996	1997	1998	1999	2000	2001	2002	2003
Calls									
IntraLATA-Intrastate	41 %	40 %	38 %	38 %	39 %	39 %	42 %	44 %	45 %
InterLATA-Intrastate	19	18	19	19	18	17	18	17	17
IntraLATA-Interstate	1	1	1	1	1	1	1	1	1
InterLATA-Interstate	37	35	37	36	37	36	36	34	33
International	1	1	1	1	1	1	1	1	2
Others[1]	2	5	5	4	4	5	2	2	2
Total Calls in Sample	197,787	165,465	483,685	578,850	474,408	538,337	456,328	427,781	340,763
Minutes									
IntraLATA-Intrastate	28 %	29 %	27 %	27 %	28 %	29 %	30 %	32 %	35 %
InterLATA-Intrastate	18	18	18	18	17	17	18	18	16
IntraLATA-Interstate	1	1	1	1	1	1	1	1	1
InterLATA-Interstate	50	47	49	49	49	47	48	46	44
International	2	1	1	1	2	2	2	2	2
Others[1]	1	4	4	3	3	5	1	1	1
Total Minutes in Sample	1,493,674	1,210,675	3,673,315	4,330,888	3,544,905	4,030,643	3,319,982	2,992,644	2,308,266

Note: Figures may not add to totals due to rounding.

[1] Toll-free (800, 888, 877, 866) calls billed to residential customers, 900 calls and calls that cannot be classified.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™*, *Bill Harvesting®*.

Table 14.2
Average Residential Wireline Monthly Toll Minutes

Type	1995	1996	1997	1998	1999	2000	2001	2002	2003
IntraLATA-Intrastate	40	41	41	40	36	33	32	28	25
InterLATA-Intrastate	26	26	27	26	23	19	19	16	12
IntraLATA-Interstate	1	1	1	1	1	1	1	1	1
InterLATA-Interstate	71	67	73	71	65	55	51	41	31
International	3	1	2	2	2	2	2	2	2
Others[1]	1	6	6	5	4	5	1	1	1
All Types	143	143	149	144	131	116	105	90	71

Note: Figures may not add to totals due to rounding.

[1] Toll-free (800, 888, 877, 866) minutes billed to residential customers, 900 minutes and minutes for calls that cannot be classified.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™*, *Bill Harvesting®*.

Table 14.3
Distribution of Residential Wireline Long Distance Call Durations: 2003 [1]

Duration of Call (Minutes)	Intrastate	Interstate	All Calls
1	46.1 %	37.6 %	43.0 %
2	13.6	10.1	12.3
3	8.0	6.7	7.5
4	4.8	4.2	4.6
5	3.5	3.4	3.5
6	2.7	2.8	2.7
7	2.2	2.5	2.3
8	1.8	2.3	2.0
9	1.5	2.0	1.7
10	2.8	4.0	3.3
11-15	4.6	7.2	5.6
16-20	2.7	4.9	3.5
21-25	1.7	3.3	2.3
26-30	1.1	2.4	1.6
31-45	1.6	3.8	2.4
46-60	0.6	1.4	0.9
> 60	0.6	1.4	0.9
Average Duration	5.6	8.9	6.8
Median Duration	2.0	3.0	2.0
Sample Size	185,941	108,325	294,266

[1] The sample includes domestic, directly-dialed calls.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™*, *Bill Harvesting®*.

Table 14.4
Duration and Distance of Intrastate Toll Calls [1]

	Duration (In Minutes)		Distance (In Miles)	
	Average	Median	Average	Median
1995	6.0	2.0	53	26
1996	6.0	2.0	55	28
1997	6.2	2.0	56	28
1998	6.0	2.0	55	29
1999	6.0	2.0	54	29
2000	6.1	2.0	54	28
2001	5.9	2.0	53	29
2002	5.6	2.0	52	28
2003	5.6	2.0	51	28

[1] Direct-dial calls carried by long distance carriers and local exchange carriers. Includes only domestic calls.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™, Bill Harvesting®.*

Table 14.5
Duration and Distance of Interstate Toll Calls [1]

	Duration (In Minutes)		Distance (In Miles)	
	Average	Median	Average	Median
1995	10.6	4.0	689	507
1996	10.0	4.0	670	473
1997	10.3	4.0	695	480
1998	10.3	4.0	691	493
1999	10.0	3.9	693	501
2000	10.0	4.0	706	524
2001	9.7	3.0	686	501
2002	9.4	3.0	692	489
2003	8.9	3.0	684	481

[1] Direct-dial calls carried by long distance carriers and local exchange carriers. Includes only domestic calls.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™, Bill Harvesting®.*

Table 14.6
Distribution of Residential Wireline Long Distance Minutes By Day and Time [1]

2003

Day	7am-6:59pm	7pm-6:59am	Total
Monday	8.3 %	5.7 %	14.1 %
Tuesday	8.0	5.6	13.6
Wednesday	8.6	5.8	14.4
Thursday	8.1	5.6	13.7
Friday	7.8	4.2	12.0
Saturday	9.7	4.0	13.7
Sunday	11.9	6.6	18.5
Total	62.4 %	37.6 %	100.0 %

[1] Based on a sample of 167,836 directly-dialed, interLATA calls.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™, Bill Harvesting®.*

15 Revenues

In 1993, the Commission required all carriers with interstate revenues to begin filing an annual Telecommunications Relay Service (TRS) Fund Worksheet. Because revenues derived from providing access to the interstate network are considered to be interstate, virtually all carriers were required to file information. Starting in 1997, larger carriers were required to file Universal Service Fund (USF) worksheets, which contain similar information but with breakouts for revenues from service provided for resale and for service provided to end users. End-user revenues include revenues associated with services to end users and do not include resale (carrier's carrier) revenues. Carrier's carrier revenues are sales of telecommunications to universal service contributors for resale in the form of telecommunications. Filers report all other revenues as end-user revenues.[1] On April 1, 2000, carriers first filed an FCC Form 499-A Telecommunications Reporting Worksheet to report prior year revenue data for TRS, USF, North American Numbering Planning Administration, and local number portability contribution purposes. The FCC Form 499-A superseded the older reporting requirements and is now filed to satisfy carrier registration requirements at the Commission as well. Beginning in 2001, many telecommunications providers also had to file the quarterly FCC Form 499-Q.

Table 15.1 shows the major components of telecommunications revenues for 1997 through 2004: carrier's carrier revenues and end-user revenues for local, wireless, and toll service. Chart 15.1 shows the trend of the end-user revenue percentages for local, wireless and toll services. Table 15.2 shows how revenues by type of service have changed over time. The table highlights how some significant changes in the revenue levels from 1996 to 1997 are due to major reporting changes. Table 15.3 shows the number of telecommunications service providers by principal type of business. Table 15.4 contains revenues for 1992 through 2002 by type of carrier. Additional revenue detail can be found in the latest *Telecommunications Industry Revenues* report (March 2005 edition).

The publication *Telecommunications Provider Locator* (March 2005 edition*)* lists 5,283 carriers that filed a FCC Form 499-A worksheet in 2004. It also contains an address and contact telephone number for each carrier.

State-level telephone revenues are estimated using data from various editions of *Telecommunications Industry Revenues, Statistics of Communications Common Carriers, Local Telephone Competition,* access filings to the FCC, and the *Statistical Abstract to the United*

[1] Carrier's carrier revenues and end-user revenues are defined in the FCC Form 499 instructions. Carrier's carrier revenues includes, for example, most access services that local exchange carriers provide to toll carriers. Sales to *de minimis* carriers and to others that are exempt from universal service contribution requirements, however, must be classified as end-user revenues. Note that filers contribute to the universal service funding mechanism based on certain types of end-user revenues.

States.[2] Table 15.5 provides estimates of telecommunications revenues by state for 1995 to 2003. Table 15.6 provides estimates of end-user and carrier's carrier revenues by state for 2003. Table 15.7 provides estimates of telecommunications revenues for incumbent local exchange carriers, competitive local exchange carriers, and mobile wireless carriers by state; it also provides estimates for subscriber line charges, access, and toll services for 2003.

[2] See Industry Analysis and Technology Division, Wireline Competition Bureau, *Monitoring Report* (October 2002), Industry Analysis Division, Common Carrier Bureau, *State-by-State Telephone Revenues and Universal Service Data* (April 2001), and previous editions for discussion of the methodology. Estimates for 2002 use a similar methodology as those used in 2001.

Table 15.1

Telecommunications Industry Revenues [1]

(Dollar Amounts Shown in Millions)

	1997	1998	1999	2000	2001	2002	2003	Preliminary [5] 2004
Carrier's Carrier Revenues [2]								
Local Service [3]	$28,289	$29,374	$33,156	$36,621	$40,108	$38,412	$37,742	$38,794
Wireless Service	2,752	3,060	4,652	5,144	6,180	5,020	4,465	5,305
Toll Service	11,598	13,448	14,934	21,849	19,999	16,476	18,205	17,244
Intrastate	16,201	18,892	22,293	25,553	27,848	25,770	24,825	24,974
Interstate and International [4]	26,562	27,114	30,449	38,060	38,439	34,138	35,587	35,801
Total	42,639	45,882	52,742	63,613	66,287	59,907	60,412	60,775
End User Revenues [2]								
Local Service [3]	69,137	75,189	78,608	84,526	87,704	88,712	86,474	85,920
Wireless Service	30,199	33,714	43,843	56,857	68,507	76,501	85,254	95,503
Toll Service	89,193	91,607	93,311	87,767	79,302	67,222	58,983	50,557
Intrastate	117,454	123,216	134,919	147,465	155,347	154,815	150,889	151,550
Interstate and International [4]	70,952	77,170	80,844	81,685	80,165	77,619	79,822	76,727
Total	188,406	200,386	215,763	229,149	235,513	232,434	230,711	228,277
Total Revenues								
Local Service [3]	97,426	104,563	111,764	121,147	127,812	127,123	124,216	124,714
Wireless Service	32,951	36,775	48,495	62,000	74,687	81,521	89,718	100,808
Toll Service	100,791	105,055	108,246	109,615	99,301	83,697	77,188	67,801
Intrastate	133,655	142,108	157,212	173,018	183,195	180,585	175,714	176,524
Interstate and International [4]	97,514	104,284	111,293	119,745	118,605	111,756	115,409	112,528
Total	$231,168	$246,392	$268,505	$292,762	$301,800	$292,341	$291,123	$289,052

Note: Detail may not add to totals due to rounding.

[1] Data include revenues for *de minimis* filers as well as for other carriers that are exempt from universal service contribution requirements.

[2] Carrier's carrier revenues are reported on the FCC Form 499-A as sales to other universal service contributors for resale. This includes, for example, access services that local exchange carriers provide to toll carriers. Sales to *de minimis* resellers, end-user customers, governments, non-profits, and any other non-contributors are treated as end-user revenues. Filers contribute to the universal service funding mechanisms based on their end-user revenues

[3] Payphone revenues are included with local service revenues in this table.

[4] Revenues from calls that both originate and terminate in foreign points are reported as end-user revenues, and are included in this table, but are not included in the universal service contribution base.

[5] Preliminary 2004 data are based on FCC Form 499-Q quarterly filings. Companies that do not contribute to universal service are not required to make these filings. The quarterly filings include preliminary data for the just-closed quarter and projections for the coming quarter, and therefore are not as accurate as the subsequent annual filings. Also, FCC Form 499-Q filers do not separate revenues by type of service. Therefore, revenue totals by service type for 2004 are based on type of filer rather than on data filed by service.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2005).

Chart 15.1

End-User Telecommunications Revenues

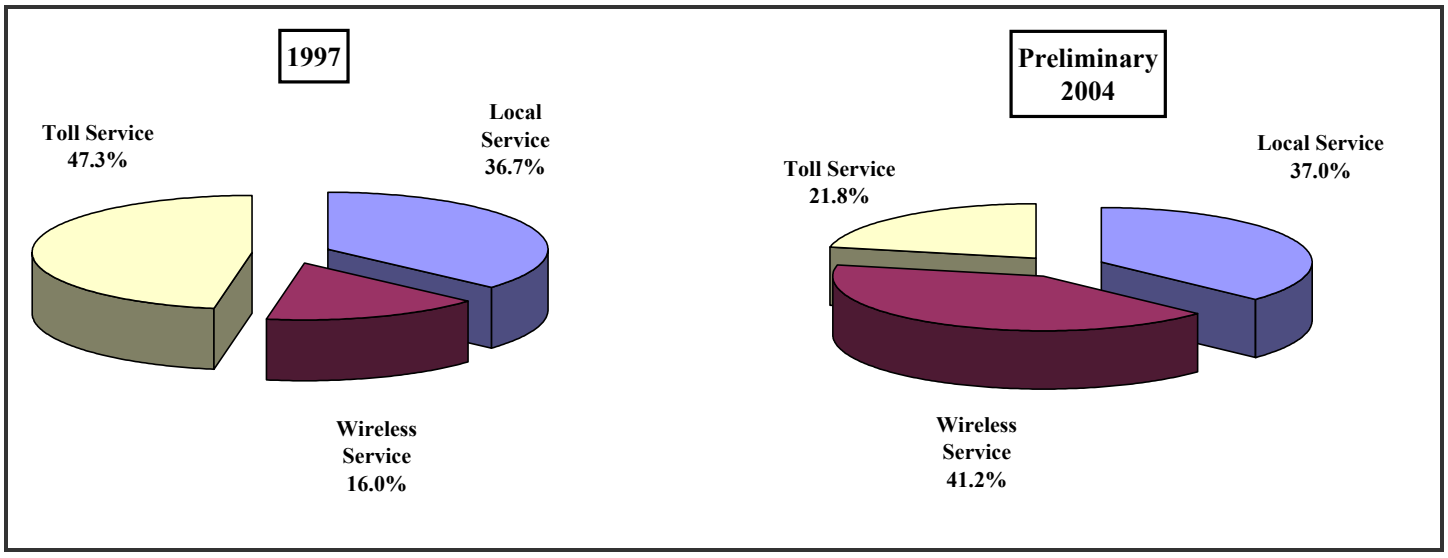


Table 15.2
Telecommunications Revenues Reported by Type of Service
(Dollar Amounts Shown in Millions)

	TRS Data				Universal Service & TRS Data		FCC Form 499-A Data				
Telecommunications Revenues	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Local Exchange	$40,176	$42,245	$45,194	$48,717	$53,771	$59,245	$64,940	$69,947	$72,346	$71,320	$70,606
Pay Telephone 1/					2,182	2,536	2,218	1,932	1,585	1,192	1,063
Local Private Line 2/	1,088	1,138	1,226	1,616	8,282	10,403	12,914	16,864	21,966	23,070	22,415
Other Local 3/	1,508	1,407	3,233	2,674	2,847	2,179	2,501	3,249	3,391	3,418	3,242
Subscriber Line Charges 2/	6,884	7,310	7,597	7,829	8,327	11,052	10,826	11,563	12,127	12,758	12,136
Access 2/	23,948	25,449	26,314	27,812	21,423	18,449	18,105	17,017	15,096	13,955	12,972
Universal Service Surcharges on Local Service Bills 4/						103	260	575	1,301	1,410	1,783
Additional Revenues from TRS Worksheets					595	595					
Total Local Service Revenues	73,604	77,548	83,564	88,647	97,426	104,563	111,764	121,147	127,812	127,123	124,216
Wireless Service	9,213	12,863	16,883	23,444	32,760	36,240	48,117	61,505	74,006	80,678	88,023
Universal Service Surcharges on Local Service Bills 4/						345	379	495	681	842	1,696
Additional Revenues from TRS Worksheets					189	189					
Total Wireless Service Revenues	9,213	12,863	16,883	23,444	32,950	36,775	48,495	62,000	74,687	81,521	89,718
Operator 1/	10,772	10,539	11,170	10,975	12,002	12,205	10,049	11,406	10,389	7,902	6,567
Non-Operator Switched Toll	60,591	61,468	65,217	73,751	72,059	74,168	78,389	75,183	65,325	54,475	50,178
Long Distance Private Line	8,067	9,043	9,719	10,665	10,504	11,952	13,169	16,189	16,402	15,108	15,316
Other Long Distance	3,095	3,428	3,523	4,299	4,695	3,386	3,656	3,372	3,259	2,445	2,222
Universal Service Surcharges on Local Service Bills 4/						1,810	2,983	3,467	3,927	3,767	2,905
Additional Revenues from TRS Worksheets					1,532	1,532					
Total Toll Service Revenues	82,525	84,478	89,629	99,691	100,793	105,055	108,246	109,615	99,301	83,697	77,188
Total Telecommunications Revenues 3/	165,342	174,890	190,076	211,782	231,168	246,392	268,505	292,762	301,799	292,341	291,122
Non-Telecommunications Revenues 3/	7,518	8,324	9,071	10,474	25,633	27,944	33,144	42,261	48,036	60,406	65,186
Total Reported Revenues	172,860	183,214	199,147	222,256	256,801	272,019	301,648	335,023	349,835	352,747	356,308
Service Reported as:											
Intrastate 3/	96,927	102,603	112,923	127,849	133,654	142,108	157,212	173,018	183,195	180,585	175,714
Interstate and International	75,933	80,611	86,224	94,407	97,514	104,284	111,293	119,745	118,605	111,756	115,409
Total Telecommunications Revenues 3/	$172,860	$183,214	$199,147	$222,256	$231,168	$246,392	$268,505	$292,762	$301,799	$292,341	$291,123

Note: Detail may not add to totals due to rounding. Data for some previous years have been revised.

1/ TRS filers generally reported pay telephone revenues as local service revenues, access revenues or operator toll revenues. The Universal Service and FCC Form 499-A worksheets contain a separate category for payphone coin revenues. Starting in 1997, payphone revenues include payphone compensation received from toll carriers.

2/ TRS Worksheet filers generally reported special access revenues as access revenues. Reporting changes implemented with the Universal Service Worksheet explain the increase in local private line revenues and the fall in access revenues shown for 1997. TRS Worksheet filers included subscriber line charges with other access charges. For the years 1992 - 1996, these revenues have been disaggregated by assuming that the end-user access revenues in Table 4.2 of *Statistics of Communications Common Carriers* represents 93% of industry total subscriber line charge revenues. Universal Service Worksheet filers report subscriber line charges in a separate category. The increase from 1997 to 1998 represents PICC charges levied by ILECs as well as $1.2 billion of PICC pass-through charges levied by toll carriers.

3/ Significant amounts of enhanced services, billing and collection, CPE and other non-telecommunications revenues were reported in the TRS mobile and other local service categories through 1996. Universal Service Worksheet filers report these revenues in the non-telecommunications category. For prior years, the amounts of non-telecommunications revenues reported as mobile and other local revenues were estimated as 70% of the amounts that Tier 1 ILECs reported in ARMIS as miscellaneous and nonregulated revenues (currently account 5200 + account 5280) and 10% of amounts reported as mobile service revenues. These amounts have been removed from Other Local and moved to the Non-Telecommunications.

4/ Charges on end-user bills identified as recovering state or federal universal service contributions are reported separately from local, wireless and toll revenues. Reported amounts are apportioned between local, wireless and toll service based on the proportions of local, wireless and toll intrastate and interstate revenues by type of carrier.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2005).

Table 15.3
Number of Interstate Telecommunications Providers
By Principal Type of Business

Service Provider Category 1/ 2/	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Incumbent Local Exchange Carriers (ILECs) 3/	1,281	1,347	1,347	1,376	1,410	1,348	1,318	1,335	1,335	1,310	1,303
Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs)	20	30	57	94	129	212	298	479	511	451	601
Local Resellers				8	11	54	73	105	132	100	100
Other Local Exchange Carriers				17	7	10	23	23	26	64	72
Total: Competitors of ILECs	20	30	57	119	147	276	394	607	669	615	773
Total: Fixed Local Service Providers 4/	1,301	1,377	1,404	1,495	1,557	1,624	1,712	1,942	2,004	1,925	2,076
Payphone Providers	163	197	271	533	509	615	704	699	751	606	605
Wireless Telephony Including Cellular, Personal Communications Service (PCS) and SMR Telephony Carriers	798	790	792	853	732	808	784	783	670	422	413
Paging & Messaging Service	126	117	138	200	137	303	391	425	425	346	347
Specialized Mobile Radio (SMR) Dispatch				163	99	119	199	191	182	138	155
Wireless Data Service Providers and Other Mobile Service Providers				1	1	28	45	31	29	21	24
Total: Wireless Service Providers	924	907	930	1,217	969	1,258	1,419	1,430	1,306	927	939
Interexchange Carriers (IXCs)	83	97	130	149	151	171	178	212	233	229	232
Operator Service Providers (OSPs)	35	29	25	27	32	24	15	20	19	18	17
Prepaid Calling Card Providers			8	16	18	20	18	23	27	27	50
Satellite Service Carriers				22	13	13	17	25	34	33	40
Toll Resellers	171	206	260	345	340	388	406	493	558	574	642
Other Toll Carriers	32	34	30	28	15	31	17	35	69	51	45
Total: Toll Service Providers	321	366	453	587	569	647	651	808	940	932	1,026
All Filers	2,709	2,847	3,058	3,832	3,604	4,144	4,486	4,879	5,001	4,390	4,646

1/ Starting in 1993, filers have been asked to select for themselves a service provider category that best describes their operations. The choices have changed over the years; for example, most satellite service providers identified themselves as other toll carriers in their 1997 TRS worksheets because that worksheet did not contain a separate category for satellite satellite service providers. Starting with the filings that included 2003 revenues, filers were able to identify up to five service provider types. Counts for 2003 are based on the category selected as best describing operations.

2/ Counts are based on the numbers of filers actually reporting revenues. Counts dropped in 2002 because many affiliated filers were permitted to make consolidated filings.

3/ Fewer incumbent local exchange carriers filed in 1998 than in 1997 because of consolidation of study areas.

4/ The total number of local service providers shown in Table 8.7 differs from the total fixed local service providers shown in Table 15.3 because the number shown in Table 8.7 includes filers that self identify as mobile or toll providers, but that report some local exchange service revenues. The number of telecommunications providers shown in Table 15.3 also differs from the numbers shown in Table 5.3 because Table 5.3 includes all filers, including new filers that reported no revenues for the year shown.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Provider Locator* (January 2000 and prior editions) and FCC Form 499-A filings.

Table 15.4
Gross Revenues Reported by Type of Carrier
(Dollars Shown in Millions)

	TRS Worksheet Data				Universal Service & TRS Data		FCC Form 499 Data				
Service Provider Category 1/	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Incumbent Local Exchange Carriers 2/	$88,728	$91,527	$95,612	$100,021	$105,154	$108,234	$112,216	$116,158	$117,885	$114,990	$109,480
Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs)	191	281	623	1,011	1,919	3,348	5,652	9,814	12,998	13,043	15,509
Local Resellers					206	410	511	879	1,393	1,538	721
Other Local Exchange Carriers					157	36	171	11	329	406	338
Private Carriers					112	147	87	39	15	281	267
Shared-Tenant Service Providers					87	93	87	202	46	42	22
Total: Competitors of ILECs	191	281	623	1,011	2,481	4,034	6,508	10,945	14,781	15,309	16,857
Total: Fixed Local Service Providers	88,920	91,807	96,235	101,032	107,634	112,268	118,725	127,103	132,666	130,300	126,337
Total: Payphone Providers	175	300	349	357	933	1,101	1,213	972	836	641	523
Wireless Telephony Including Cellular, Personal Communications Service (PCS) and SMR Telephony Carriers 2/	8,294	11,933	15,488	21,400	29,944	33,139	46,513	59,823	71,887	78,568	88,168
Paging & Messaging Service 2/					2,861	3,161	3,232	3,102	2,197	1,473	1,007
Specialized Mobile Radio (SMR) Dispatch							186	191	214	206	33
Wireless Data Service Providers and Other Mobile Service Providers	868	845	1,277	1,909	225	731	221	164	110	220	135
Total: Wireless Service Providers	9,161	12,777	16,765	23,310	33,030	37,032	50,152	63,280	74,596	80,467	89,342
Interexchange Carriers (IXCs)	61,118	66,381	70,938	79,057	79,080	83,443	87,570	87,311	81,272	68,146	61,246
Operator Service Providers (OSPs)	695	536	500	461	603	590	337	635	611	554	567
Prepaid Calling Card Providers			16	238	519	888	866	727	133	460	812
Satellite Service Carriers					1,011	475	280	336	373	406	663
Toll Resellers	1,869	2,840	4,220	6,564	8,010	9,885	9,211	10,641	8,797	9,279	9,294
Other Toll Carriers	711	709	773	577	348	710	150	1,758	2,516	2,089	2,339
Total: Toll Service Providers	64,393	70,466	76,447	86,896	89,570	95,992	98,414	101,407	93,702	80,934	74,920
Adjustments 3/	2,693	(461)	280	187	0	0	0	0	0	0	0
Total Telecommunications Revenues	$165,342	$174,890	$190,076	$211,782	$231,168	$246,392	$268,505	$292,762	$301,799	$292,341	$291,123

Note: Some data revised for 1993 through 1996.

1/ Filers are asked to select for themselves a service provider category that best describes their operations. The choices have changed over the years. For example, most satellite service providers identified themselves as other toll carriers in their 1997 Form 431 TRS worksheets because that worksheet did not contain a separate category for satellite service providers. Starting with the filings that included 2003 revenues, filers were able to identify up to five service provider types. Counts for 2003 are based on the category selected as best describing operations.

2/ Significant amounts of enhanced service, billing and collection, CPE and other non-telecommunications revenues were reported on TRS worksheets by incumbent local exchange carriers (ILECs) and wireless carriers through 1996. Universal Service Worksheet filers report these revenues in the non-telecommunications category. For prior years, the amounts of non-telecommunications revenues reported as mobile and other local revenues were estimated as 70% of the amounts that Tier 1 ILECs reported in ARMIS as miscellaneous and nonregulated revenues (currently account 5200 + account 5280) and 10% of amounts reported as mobile service revenues. These amounts have been removed from incumbent local exchange carrier totals.

3/ Adjustments include some amounts withheld to preserve confidentiality and revisions made after the initial publication of the data.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2005).

Table 15.5
Total Telecommunications Revenues by State
(Dollar Amounts Shown in Millions)

	1995	1996	1997	1998	1999	2000	2001	2002 *r*	2003 *p*	Percent Change 1995-2003
Alabama	$2,668	$2,946	$3,205	$3,394	$3,712	$4,008	$4,314	$4,052	$4,335	62 %
Alaska	464	518	561	590	664	717	770	778	816	76
American Samoa	NA	NA	NA	NA	NA	NA	13	13	13	NA
Arizona	2,842	3,249	3,667	3,958	4,359	4,972	5,205	5,045	4,891	72
Arkansas	1,534	1,719	1,885	2,005	2,303	2,315	2,593	2,486	2,466	61
California	22,379	25,100	27,236	28,692	29,384	33,577	35,398	34,838	34,048	52
Colorado	3,128	3,526	4,006	4,260	4,826	5,290	5,515	5,308	5,005	60
Connecticut	2,765	2,943	3,266	3,173	3,405	3,924	4,020	3,854	3,878	40
Delaware	492	567	627	685	788	875	883	877	873	77
District of Columbia	886	955	1,049	1,085	1,581	1,648	1,383	1,343	1,335	51
Florida	11,582	12,972	14,161	15,042	17,223	18,308	18,849	18,223	18,585	60
Georgia	5,335	6,004	6,849	7,469	8,479	8,919	9,627	9,371	9,417	77
Guam	NA	85	97	103	99	108	122	119	123	NA
Hawaii	775	841	930	969	1,009	1,177	1,207	1,200	1,210	56
Idaho	791	908	967	1,010	1,092	1,210	1,245	1,244	1,235	56
Illinois	7,916	8,920	10,069	10,948	11,983	13,516	12,860	12,110	11,911	50
Indiana	3,804	4,192	4,536	4,810	5,099	5,552	5,524	5,385	5,284	39
Iowa	1,888	2,039	2,163	2,268	2,441	2,340	2,652	2,549	2,707	43
Kansas	1,829	2,017	2,165	2,304	2,588	2,571	2,656	2,479	2,470	35
Kentucky	2,353	2,629	2,861	3,060	3,426	3,573	3,665	3,301	3,611	53
Louisiana	2,703	2,946	3,192	3,432	3,913	3,964	4,274	4,185	4,224	56
Maine	869	976	996	1,105	1,195	1,328	1,387	1,365	1,357	56
Maryland	3,767	4,234	4,625	4,911	5,176	5,783	6,202	6,033	6,064	61
Massachusetts	4,988	5,455	6,010	6,338	6,561	7,428	7,367	7,121	6,973	40
Michigan	6,444	7,246	7,983	8,523	9,530	9,937	9,889	9,450	9,340	45
Minnesota	3,064	3,461	3,864	4,115	4,617	4,877	4,934	4,772	4,675	53
Mississippi	1,584	1,734	1,877	2,017	2,283	2,486	2,633	2,578	2,671	69
Missouri	3,623	4,017	4,389	4,613	5,442	5,688	6,067	5,436	5,667	56
Montana	640	709	756	780	897	937	903	907	909	42
Nebraska	1,296	1,428	1,540	1,587	1,737	1,760	1,865	1,796	1,796	39
Nevada	1,099	1,324	1,489	1,592	1,884	1,954	2,160	2,163	2,264	106
New Hampshire	989	1,118	1,208	1,246	1,313	1,429	1,419	1,399	1,371	39
New Jersey	7,091	7,927	8,707	9,366	9,558	10,670	10,689	10,251	10,040	42
New Mexico	1,121	1,262	1,370	1,433	1,518	1,515	1,656	1,631	1,703	52
New York	14,983	16,026	17,120	17,935	19,700	20,903	21,771	21,148	20,626	38
North Carolina	5,394	6,104	6,613	7,297	8,006	8,619	8,811	8,368	8,308	54
North Dakota	481	587	596	599	660	731	699	678	640	33
Northern Mariana Islands	15	18	21	30	34	32	43	46	44	200
Ohio	7,457	8,219	8,823	9,396	9,952	10,902	10,708	10,351	10,402	39
Oklahoma	1,996	2,179	2,410	2,552	2,727	2,915	3,116	3,100	3,204	61
Oregon	2,238	2,502	2,720	2,905	3,123	3,159	3,480	3,381	3,326	49
Pennsylvania	7,961	8,867	9,588	10,309	10,770	12,200	12,578	12,274	12,069	52
Puerto Rico	1,244	1,405	1,606	1,467	2,051	1,971	2,598	2,168	2,453	97
Rhode Island	686	761	839	859	946	1,012	989	978	963	41
South Carolina	2,653	2,849	3,053	3,393	3,790	4,047	4,147	4,142	4,180	58
South Dakota	488	584	602	635	716	763	712	690	667	37
Tennessee	3,467	3,880	4,302	4,553	4,928	5,256	5,574	5,409	5,457	57
Texas	12,871	14,563	15,943	17,576	19,032	21,405	21,617	21,549	21,472	67
Utah	1,112	1,284	1,443	1,557	1,790	1,998	2,090	2,016	1,984	78
Vermont	424	547	575	602	684	717	659	640	628	48
Virgin Islands	74	93	101	109	122	129	145	157	172	134
Virginia	5,061	5,646	6,179	6,576	7,020	8,013	8,506	8,174	8,095	60
Washington	3,995	4,438	4,613	5,080	5,703	6,253	6,260	6,215	6,081	52
West Virginia	1,143	1,240	1,337	1,383	1,437	1,625	1,735	1,671	1,671	46
Wisconsin	3,258	3,621	3,927	4,234	4,719	5,195	5,027	4,976	4,852	49
Wyoming	366	402	449	462	513	563	587	552	566	55
Total	$190,076	$211,782	$231,168	$246,392	$268,505	$292,762	$301,799	$292,341	$291,123	53 %

p indicates preliminary, and *r* indicates revised.

NA - Not Available.

Note: Figures may not add to totals due to rounding.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau,*Monitoring Report* (October 2004), and Industry Analysis Division, Common Carrier Bureau, *State-by-State Telephone Revenues and Universal Service Data (April 2001).* Estimates for 2003 use a methodology that is similar to that used in 2002.

Table 15.6
Telecommunications Revenues by State: 2003
(Dollar Amounts Shown in Millions)

	End User			Carrier's Carrier			Total: End User + Carrier's Carrier			
	Interstate	Intrastate	Total	Interstate	Intrastate	Total	Interstate	Intrastate	Total	Percent of Total
Alabama	$1,156	$2,381	$3,537	$482	$315	$798	$1,638	$2,697	$4,335	1.49 %
Alaska	256	383	639	114	63	177	370	446	816	0.28
American Samoa	2	9	11	1	2	2	2	11	13	0.00
Arizona	1,537	2,361	3,898	651	342	993	2,187	2,704	4,891	1.68
Arkansas	679	1,249	1,929	320	217	537	999	1,467	2,466	0.85
California	8,513	18,370	26,883	3,723	3,442	7,165	12,236	21,812	34,048	11.70
Colorado	1,494	2,468	3,961	686	357	1,044	2,180	2,825	5,005	1.72
Connecticut	1,212	1,875	3,087	560	231	791	1,772	2,106	3,878	1.33
Delaware	294	397	692	134	47	181	429	444	873	0.30
Dist. of Columbia	398	628	1,027	234	75	308	632	703	1,335	0.46
Florida	5,362	9,264	14,626	2,320	1,638	3,958	7,682	10,902	18,585	6.38
Georgia	2,541	4,947	7,488	1,233	696	1,929	3,774	5,643	9,417	3.23
Guam	38	59	96	17	10	26	55	68	123	0.04
Hawaii	351	622	972	144	93	238	495	715	1,210	0.42
Idaho	396	559	955	191	89	279	587	648	1,235	0.42
Illinois	3,199	6,405	9,604	1,347	960	2,307	4,546	7,365	11,911	4.09
Indiana	1,494	2,706	4,201	614	469	1,083	2,109	3,175	5,284	1.81
Iowa	761	1,328	2,089	352	266	618	1,113	1,594	2,707	0.93
Kansas	715	1,229	1,944	345	181	526	1,059	1,410	2,470	0.85
Kentucky	966	1,967	2,933	412	266	678	1,378	2,233	3,611	1.24
Louisiana	1,103	2,339	3,442	457	325	783	1,560	2,664	4,224	1.45
Maine	368	706	1,074	179	104	283	548	809	1,357	0.47
Maryland	1,806	3,024	4,830	794	440	1,234	2,600	3,464	6,064	2.08
Massachusetts	1,946	3,637	5,583	897	493	1,390	2,843	4,130	6,973	2.40
Michigan	2,354	5,178	7,531	939	870	1,809	3,292	6,047	9,340	3.21
Minnesota	1,303	2,387	3,690	611	373	984	1,914	2,761	4,675	1.61
Mississippi	701	1,464	2,165	313	192	506	1,015	1,656	2,671	0.92
Missouri	1,557	2,843	4,400	736	530	1,266	2,293	3,373	5,667	1.95
Montana	288	411	700	126	84	210	414	495	909	0.31
Nebraska	466	930	1,395	233	167	400	699	1,097	1,796	0.62
Nevada	799	1,006	1,804	337	123	460	1,135	1,129	2,264	0.78
New Hampshire	429	650	1,079	189	103	291	618	753	1,371	0.47
New Jersey	2,988	4,923	7,911	1,346	783	2,129	4,334	5,705	10,040	3.45
New Mexico	536	791	1,327	241	135	376	777	926	1,703	0.59
New York	5,222	11,086	16,308	2,494	1,824	4,318	7,716	12,911	20,626	7.09
North Carolina	2,402	4,197	6,599	1,028	681	1,709	3,430	4,878	8,308	2.85
North Dakota	181	308	488	97	55	151	277	362	640	0.22
N. Mariana Islands	14	21	35	6	3	10	20	24	44	0.02
Ohio	2,714	5,589	8,304	1,150	948	2,098	3,865	6,537	10,402	3.57
Oklahoma	897	1,656	2,553	413	239	652	1,310	1,895	3,204	1.10
Oregon	998	1,594	2,592	467	267	735	1,465	1,861	3,326	1.14
Pennsylvania	3,357	6,067	9,424	1,477	1,168	2,645	4,834	7,235	12,069	4.15
Puerto Rico	592	1,444	2,036	222	195	416	814	1,639	2,453	0.84
Rhode Island	285	502	788	112	64	176	398	566	963	0.33
South Carolina	1,160	2,194	3,354	491	335	826	1,651	2,528	4,180	1.44
South Dakota	195	316	512	93	63	155	288	379	667	0.23
Tennessee	1,525	2,927	4,452	632	374	1,005	2,156	3,300	5,457	1.87
Texas	5,234	11,676	16,910	2,426	2,137	4,563	7,660	13,812	21,472	7.38
Utah	588	986	1,574	267	142	410	855	1,128	1,984	0.68
Vermont	208	280	488	98	42	140	305	322	628	0.22
Virgin Islands	70	61	131	31	10	41	102	71	172	0.06
Virginia	2,392	3,886	6,278	1,121	696	1,817	3,514	4,581	8,095	2.78
Washington	1,754	2,960	4,714	810	557	1,367	2,564	3,517	6,081	2.09
West Virginia	507	801	1,309	229	134	363	736	935	1,671	0.57
Wisconsin	1,344	2,581	3,925	557	370	927	1,901	2,951	4,852	1.67
Wyoming	176	262	438	89	40	129	265	301	566	0.19
Total	$79,822	$150,889	$230,711	$35,587	$24,825	$60,412	$115,409	$175,714	$291,123	100.00 %

Note: Figures may not add to totals due to rounding.

Source: Estimates for 2003 use methodolgy similar 2002. See Industry Analysis and Technology Division, Wireline Competition Bureau, *Monitoring Report* (October 2004).

Table 15.7
Telecommunications Revenues by Type of Service: 2003
(Dollar Amounts Shown in Millions)

	ILECs [1]	CLECs	Mobile Wireless	SLCs [2]	Access	Toll	Total
Alabama	$1,378	$165	$1,360	$188	$263	$980	$4,335
Alaska	NA	NA	NA	NA	NA	NA	816
American Samoa	NA	NA	NA	NA	NA	NA	13
Arizona	1,142	323	1,591	240	405	1,189	4,891
Arkansas	661	77	667	97	248	715	2,466
California	7,117	1,896	11,501	1,192	3,261	9,081	34,048
Colorado	1,331	308	1,502	247	451	1,166	5,005
Connecticut	937	146	1,087	179	346	1,184	3,878
Delaware	203	29	259	45	79	258	873
District of Columbia	404	109	335	42	151	295	1,335
Florida	4,680	966	5,509	928	1,731	4,769	18,585
Georgia	2,759	536	2,895	378	829	2,020	9,417
Guam	NA	NA	NA	NA	NA	NA	123
Hawaii	306	31	439	65	108	262	1,210
Idaho	305	15	361	64	144	345	1,235
Illinois	2,842	1,006	3,940	431	876	2,815	11,911
Indiana	1,350	217	1,552	267	445	1,454	5,284
Iowa	648	122	799	124	305	708	2,707
Kansas	647	198	684	90	213	637	2,470
Kentucky	1,198	71	1,090	169	238	846	3,611
Louisiana	1,359	132	1,339	197	272	925	4,224
Maine	359	54	326	59	119	441	1,357
Maryland	1,506	236	1,859	257	492	1,714	6,064
Massachusetts	1,494	527	2,112	307	565	1,968	6,973
Michigan	1,967	862	3,295	346	731	2,139	9,340
Minnesota	1,139	333	1,566	190	452	995	4,675
Mississippi	954	84	716	110	163	645	2,671
Missouri	1,473	208	1,680	237	619	1,449	5,667
Montana	236	12	228	51	99	284	909
Nebraska	481	119	553	60	194	390	1,796
Nevada	517	83	695	89	166	715	2,264
New Hampshire	273	85	375	64	119	455	1,371
New Jersey	1,894	628	2,949	456	954	3,158	10,040
New Mexico	453	13	486	103	187	462	1,703
New York	5,331	2,164	5,849	786	1,696	4,799	20,626
North Carolina	2,265	276	2,511	414	715	2,126	8,308
North Dakota	167	26	180	28	82	156	640
N. Mariana Islands	NA	NA	NA	NA	NA	NA	44
Ohio	2,789	469	3,313	445	866	2,521	10,402
Oklahoma	891	136	955	134	272	817	3,204
Oregon	806	105	1,021	167	366	861	3,326
Pennsylvania	2,519	879	3,517	585	1,202	3,366	12,069
Puerto Rico	661	37	1,025	105	182	443	2,453
Rhode Island	195	104	321	42	50	251	963
South Carolina	1,270	127	1,235	189	311	1,048	4,180
South Dakota	155	22	203	30	82	175	667
Tennessee	1,611	218	1,795	256	348	1,229	5,457
Texas	5,972	1,410	6,633	798	2,032	4,627	21,472
Utah	449	146	664	91	183	450	1,984
Vermont	180	14	119	33	57	224	628
Virgin Islands	NA	NA	NA	NA	NA	NA	172
Virginia	1,778	459	2,345	353	848	2,311	8,095
Washington	1,392	240	1,874	312	702	1,561	6,081
West Virginia	503	24	389	88	151	517	1,671
Wisconsin	1,222	327	1,510	215	340	1,237	4,852
Wyoming	149	17	154	27	64	155	566
Total	$72,579	$16,856	$89,705	$12,426	$25,894	$73,658	$291,123

NA - Not Applicable.

Note: Figures are preliminary and may not add to totals due to rounding.

[1] Excludes subscriber line charges.

[2] Includes ILECs' USF pass-thru charges.

[3] Totals in the first six columns include revenues for locations not estimated.

Source: Estimates for 2003 use a methodology similar to that used in 2002. See Industry Analysis and Technology Division, Wireline Competition Bureau, *Monitoring Report* (October 2004).

16 Subscribership

Under contract with the FCC, the U.S. Census Bureau includes questions on telephones as part of its *Current Population Survey (CPS)*. This survey, which monitors demographic trends between the decennial censuses, has several strengths: it is conducted regularly by an expert agency, the sample is very large, and the questions are consistent. Thus, changes in the results can be compared over time with a great deal of confidence.

Almost twenty-nine million households have been added to the nation's telephone system since these surveys began in November 1983, reflecting both an increase in the total number of households and a small, but statistically significant, increase in the percentage of households that subscribe to telephone service.

Because of smaller sample sizes, state-by-state data, shown in Table 16.2, are subject to greater sampling errors than the national data shown in Table 16.1. Additional information can be found in the *Telephone Penetration* and *Telephone Subscribership* reports available on the Internet on the **FCC-State Link** web page at www.fcc.gov/wcb/stats.

Table 16.3 reports telephone subscribership on American Indian Reservations and Off-Reservation Trust Lands. Statistics from the 2000 Decennial Census estimated that 67.9% of all American Indian households living on American Indian Reservations and Off-Reservation Trust Lands had telephone service. The study can be found in the *Local and Long Distance Telephone Industries* section of the **FCC-State Link**.

Historical estimates for the United States, using the decennial census population counts, are shown in Table 16.4. Prior to 1980, historical estimates of telephone penetration were based on a comparison of the number of residential main stations to the number of households. These estimates became less reliable at that point because of the emergence of an increasing number of households with multiple phone lines. In the 1980 decennial census, the question "Do you have a telephone?" was added to the long-form questionnaire. The 1980 and 1990 percentages in Table 16.4 are based on those responses. In the 2000 decennial census, the question was changed to “Is there telephone service available in this [housing unit] from which you can both make and receive calls?” The question was changed in 2000 to avoid the possible bias from having a phone but no service. With the telephone companies no longer owning the telephone instruments beginning in 1984, it is possible for someone to have a telephone but not have service. The decennial census percentage in 2000 reported in Table 16.4 is still higher than the CPS percentage reported in Table 16.1.

Table 16.5 is based on a special supplement to the *Current Population Survey* in February 2004, and shows the proportions of households having landline versus cellular phones, as related to their metropolitan status (in central cities, in metropolitan areas outside central cities, and outside metropolitan areas).

Table 16.1
Household Telephone Subscribership in the United States

	Households (Millions)	Households with Telephones (Millions)	Percentage with Telephones	Households without Telephones (Millions)	Percentage without Telephones
1983 November	85.8	78.4	91.4 %	7.4	8.6 %
1984 March	86.0	78.9	91.8	7.1	8.2
July	86.6	79.3	91.6	7.3	8.4
November	87.4	79.9	91.4	7.5	8.6
1985 March	87.4	80.2	91.8	7.2	8.2
July	88.2	81.0	91.8	7.2	8.2
November	88.8	81.6	91.9	7.2	8.1
1986 March	89.0	82.1	92.2	6.9	7.8
July	89.5	82.5	92.2	7.0	7.8
November	89.9	83.1	92.4	6.8	7.6
1987 March	90.2	83.4	92.5	6.8	7.5
July	90.7	83.7	92.3	7.0	7.7
November	91.3	84.3	92.3	7.0	7.7
1988 March	91.8	85.3	92.9	6.5	7.1
July	92.4	85.7	92.8	6.7	7.2
November	92.6	85.7	92.5	6.9	7.5
1989 March	93.6	87.0	93.0	6.6	7.0
July	93.8	87.5	93.3	6.3	6.7
November	93.9	87.3	93.0	6.6	7.0
1990 March	94.2	87.9	93.3	6.3	6.7
July	94.8	88.4	93.3	6.4	6.7
November	94.7	88.4	93.3	6.3	6.7
1991 March	95.3	89.2	93.6	6.1	6.4
July	95.5	89.1	93.3	6.4	6.7
November	95.7	89.4	93.4	6.3	6.6
1992 March	96.6	90.7	93.9	5.9	6.1
July	96.6	90.6	93.8	6.0	6.2
November	97.0	91.0	93.8	6.0	6.2
1993 March	97.3	91.6	94.2	5.7	5.8
July	97.9	92.2	94.2	5.7	5.8
November	98.8	93.0	94.2	5.8	5.8
1994 March	98.1	92.1	93.9	6.0	6.1
July	98.6	92.4	93.7	6.2	6.3
November	99.8	93.7	93.8	6.2	6.2
1995 March	99.9	93.8	93.9	6.1	6.1
July	100.0	94.0	94.0	6.0	6.0
November	100.4	94.2	93.9	6.2	6.1
1996 March	100.6	94.4	93.8	6.2	6.2
July	101.2	95.0	93.9	6.1	6.1
November	101.3	95.1	93.9	6.2	6.1
1997 March	102.0	95.8	93.9	6.2	6.1
July	102.3	96.1	93.9	6.2	6.1
November	102.8	96.5	93.8	6.3	6.2
1998 March	103.4	97.4	94.1	6.1	5.9
July	103.4	97.3	94.1	6.1	5.9
November	104.1	98.0	94.2	6.1	5.8
1999 March	104.8	98.5	94.0	6.3	6.0
July	105.1	99.2	94.4	5.9	5.6
November	105.4	99.1	94.1	6.3	5.9
2000 March	105.3	99.6	94.6	5.7	5.4
July	105.8	99.8	94.4	5.9	5.6
November	106.5	100.2	94.1	6.3	5.9
2001 March	107.0	101.1	94.6	5.8	5.4
July	106.9	101.7	95.1	5.2	4.9
November	107.7	102.2	94.9	5.5	5.1
2002 March	108.3	103.4	95.5	4.8	4.5
July	108.5	103.2	95.1	5.3	4.9
November	109.0	104.0	95.3	5.1	4.7
2003 March	112.1	107.1	95.5	5.0	4.5
July	112.1	106.8	95.2	5.3	4.8
November	113.1	107.1	94.7	6.0	5.3
2004 March	112.9	106.4	94.2	6.5	5.8
July	113.5	106.5	93.8	7.1	6.2
November	113.8	106.4	93.5	7.4	6.5

Source: Industry Analysis and Technology Division, Wireline Competition Bureau,*Telephone Subscribership in the United States* (March 2005).

Table 16.2
Telephone Penetration by State
(Annual Average Percentage of Households with Telephone Service)

State	1984	2004	Change	
Alabama	88.4 %	92.2 %	3.8 %	*
Alaska	86.5	95.6	9.1	*
Arizona	86.9	91.8	4.9	*
Arkansas	86.6	88.6	2.0	
California	92.5	96.0	3.5	*
Colorado	93.2	95.8	2.6	*
Connecticut	95.5	95.5	0.0	
Delaware	94.3	96.0	1.8	*
District of Columbia	94.9	91.9	-3.0	#
Florida	88.7	93.4	4.7	*
Georgia	86.2	91.2	5.0	*
Hawaii	93.5	95.4	1.8	*
Idaho	90.7	94.8	4.1	*
Illinois	94.2	90.1	-4.1	#
Indiana	91.6	91.8	0.3	
Iowa	96.2	95.4	-0.8	
Kansas	94.3	94.8	0.4	
Kentucky	88.1	91.4	3.3	*
Louisiana	89.7	90.9	1.3	
Maine	93.4	96.6	3.2	*
Maryland	95.7	93.4	-2.3	#
Massachusetts	95.9	96.4	0.5	
Michigan	92.8	93.7	0.9	
Minnesota	95.8	97.1	1.3	
Mississippi	82.4	89.6	7.2	*
Missouri	91.5	93.7	2.2	*
Montana	91.0	93.5	2.5	*
Nebraska	95.7	95.7	0.0	
Nevada	90.4	92.2	1.8	
New Hampshire	94.3	96.4	2.1	*
New Jersey	94.8	95.1	0.3	
New Mexico	82.0	91.4	9.4	*
New York	91.8	94.5	2.7	*
North Carolina	88.3	93.3	5.0	*
North Dakota	94.6	95.0	0.3	
Ohio	92.4	94.9	2.5	*
Oklahoma	90.3	91.0	0.7	
Oregon	90.6	95.5	4.9	*
Pennsylvania	94.9	95.6	0.7	
Rhode Island	93.6	95.3	1.7	
South Carolina	83.7	93.4	9.8	*
South Dakota	93.2	93.6	0.4	
Tennessee	88.5	92.8	4.3	*
Texas	88.4	91.8	3.4	*
Utah	92.5	96.3	3.7	*
Vermont	92.3	95.9	3.6	*
Virginia	93.1	94.0	1.0	
Washington	93.0	95.5	2.5	*
West Virginia	87.7	93.2	5.5	*
Wisconsin	95.2	95.5	0.2	
Wyoming	89.9	94.6	4.7	*
Total United States	91.6 %	93.8 %	2.2 %	*

Note: Differences may not appear to equal changes due to rounding.

* Increase is statistically significant at the 95% confidence level.

Decrease is statistically significant at the 95% confidence level.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telephone Subscribership in the United States* (March 2005).

Table 16.3
Telephone Subscribership on American Indian Reservations
And Off-Reservation Trust Land: Federal
(2000 Census)

State	All Housing Units		American Indian	
	Penetration [1]	Occupied Housing Units	Penetration [1]	Occupied Housing Units [1]
Alabama	84.8 %	92	88.1 %	59
Alaska	96.5	491	95.9	416
Arizona	55.3	47,412	49.9	41,307
California	92.8	21,001	83.2	5,189
Colorado	93.5	4,588	82.7	893
Connecticut	100.0	90	100.0	88
Florida	95.8	1,277	91.2	408
Idaho	95.1	11,370	89.3	2,206
Iowa	90.3	237	88.5	174
Kansas	95.1	2,122	89.7	380
Louisiana	91.9	209	91.5	177
Maine	95.0	762	94.5	652
Massachusetts	100.0	27	100.0	19
Michigan	97.4	12,537	92.9	1,596
Minnesota	93.0	12,292	86.4	5,007
Mississippi	62.6	1,326	56.5	1,051
Montana	92.1	20,772	87.1	9,899
Nebraska	91.0	2,838	79.8	1,041
Nevada	90.3	3,023	89.6	2,608
New Mexico	65.2	40,635	52.5	27,821
New York	94.7	5,271	94.8	2,444
North Carolina	91.0	2,619	89.9	2,079
North Dakota	89.1	6,799	85.6	4,869
Oklahoma	95.2	16,617	90.8	1,976
Oregon	93.3	2,069	90.7	1,362
Rhode Island	100.0	19	100.0	3
South Carolina	97.7	172	97.3	148
South Dakota	84.6	17,082	75.7	10,095
Texas	75.3	384	72.6	336
Utah	82.6	7,807	52.7	2,502
Washington	95.9	39,502	89.3	7,495
Wisconsin	96.0	12,394	90.1	4,491
Wyoming	91.7	8,373	75.0	1,663
Total	83.1 %	302,208	67.9 %	140,454

[1] Some of the reservations are in multiple states. For these reservations, occupied housing units with and without telephone service are allocated to the states based on the number of occupied housing units that are in each state. Census document GCT-H8 has data on the number of occupied housing units in each state by reservation.

Table 16.4
Historical Telephone Penetration Estimates

Year	Percentage of Households with Telephones	Access Lines per 100 Population
1920	35.0 %	9.6
1930	40.9	12.5
1940	36.9	12.7
1950	61.8	21.7
1960	78.3	27.6
1970	90.5	35.0
1980	92.9	44.8
1990	94.8	54.3
2000	97.6	66.4

Sources: FCC staff estimates based on data from the U.S. Census Bureau, *Historical Statistics of the United States, Colonial Times to 1970*, Part 2, page 783, for all percentage data except 1980 to 2000, which are from the decennial censuses. Access line data for 1920 through 1970 are estimated by multiplying the number of telephones by the proportion of main plus equivalent main stations to total telephones for the Bell System. Prior to 1950, the 1950 proportion is used. For 1980 to 2000, local loops for the states and the District of Columbia are used.

Table 16.5
Percentage of Households with Wireline and Cellular Service By Rural and Non-Rural Demographics
(February 2004)

Metropolitan Status	Percentage of Households			
	Wireline and Cellular	Wireline Only	Cellular Only	Total (Wireline or Cellular)
Urban: Central City [1]	45.6 %	39.0 %	7.9 %	92.5 %
Urban: MSA (Non-Central City) [1]	57.2	33.7	5.2	96.0
Rural: Non-MSA (Rural) [2]	45.2	44.3	5.3	94.8
National	51.7 %	37.2 %	6.0 %	94.9 %

[1] MSA includes both central city and non-central city.

[2] Rural refers to non-MSA.

Source: Brian Meekins, Bureau of Labor Statistics (2004), based on U.S. Census Bureau's *Current Population Survey* supplement in February 2004.

17 Technology Development

The Bell operating companies (BOCs) file data on technology as part of their Automated Reporting Management Information System (ARMIS) reports. The data contained in Tables 17.1, 17.2 and 17.4 are from the BOCs' ARMIS 43-07 reports, and the data contained in Table 17.3 are from the ARMIS 43-05 report. The individual carrier's data can be obtained from the ARMIS web page at www.fcc.gov/wcb/armis/db. Selected holding company statistics from the ARMIS 43-07 can be found in our *Monitoring* report on the **FCC-State Link** web page.

1. Central Office Technology

Telephone companies replaced most of their older electromechanical switches with stored program control switches during the 1980s. In a stored program control (SPC) switch, switch operations are controlled by a program stored in switch memory and executed by one or more switch processors. Operation of such systems can be altered significantly by changing the stored program. Stored program control switches may use either analog or digital technology. However, switches with the most current technologies are digital. Beginning in the late 1970s, telephone companies began replacing older analog switches with newer digital ones. Nonetheless, analog SPC and even electromechanical switching may still be found in some companies, particularly among the small rural carriers. The deployment of switching by the BOCs is shown in Table 17.1.

Newer signaling systems have been developed which permit calls to be set up more quickly and efficiently, and which allow certain new services to be deployed. In the late 1980s, telephone company switching offices began to be converted to Signaling System 7. As shown in Table 17.2, Signaling System 7 has been deployed almost everywhere. Telephone companies began introducing integrated systems digital network (ISDN) capabilities shortly after Signaling System 7. One of the attractions of ISDN was that ordinary local telephone lines (copper loops) could transport high-speed data between computers. The number of BOCs switching offices and the lines served by offices with ISDN are shown in Table 17.2. Information about broadband deployment is contained in Chapter 2, *Advanced Telecommunications.*

Table 17.3 provides some additional measures of switches. It shows line counts of switches from 1996 to 2003 for the following categories: switches with fewer than 1,000 lines; 1,000 - 4,999 lines; 5,000 - 9,999 lines; 10,000 - 19,999 lines; and 20,000 lines or more. The table also breaks out switches based on their being in a Metropolitan Statistical Area (MSA) or non-MSA.

2. Transmission Technology

Each telephone company has a network of transmission paths or carrier links tying together its switching offices. As indicated in Table 17.4, fiber optic cables have rapidly

replaced copper to provide these links.[1] From 1990 to 2001, the proportion of fiber digital transmission links in the network increased from 60% to over 97%.

Although fiber technology was first used for interoffice transmission facilities, the technology is now being deployed between customers and their serving local switching office. The number of working channels provides a rough approximation of the number of transmission paths that are in service between customers and the telephone company offices serving those customers. The number of fiber working channels provided partly or totally on fiber increased from 2.9% in 1990 to 19.7% in 2003. In 1990, copper wire linked about 86.8% of customers to the first point of switching, and in 2003 copper linked 80.3% of customers.[2]

3. Equal Access

Equal access refers to a class of service whereby all long distance service providers receive equivalent connections to the local exchange carrier's network. Where a local exchange carrier serves customers using equal-access switches, those customers can utilize their preferred long distance provider by dialing "1" plus the ten-digit telephone number they want to reach.

The conversion of lines by local exchange carriers to equal access started in 1984; by the end of 1996, over 99% of the nation's lines were served by equal access switches. A table tracing this process through time can be found in the equal-access section of the *Trends* report released in July 1998.

Despite the fact that more than 99% of the nation's customers are now provided with equal access, there still are some central offices where equal access is not yet available. Because the non-equal-access offices tend to be smaller offices, the percentage of converted offices is significantly smaller than the percentage of converted lines. Table 17.5 shows the number of central office wire centers in each state that had been converted to equal access as of February 1, 2005. The table is derived from NECA's Tariff 4 database, which is updated by local exchange carriers. In some cases, there is a lag between an office converting to equal access and that change being reflected in the database. Thus, in some cases, the data continue to show some offices not yet converted to equal access even in states where equal access is reported to be available to all customers.

The National Exchange Carrier Association periodically conducts a survey of some 1,000 small, mostly rural telephone companies[3]. The most recent survey focuses on the small companies' efforts to bring advanced services to their customers. Table 17.6 shows selected

[1] A carrier link is defined as a segment of a carrier-derived interoffice transmission facility between points at which either a change in carrier technology (i.e., analog, digital) or transmission medium (i.e., copper, fiber, or radio) occurs. This table includes only those carrier links provided on digital technologies.

[2] Working Channels are reported in 4 kHz bandwidth (single voice channel) equivalents.

[3] National Exchange Carrier Association (NECA), *Fulfilling the Digital Dream, 2003 Access Market Survey.*

network capabilities of survey respondents by state for the 2003 survey. In addition to the number of central offices and access lines, the table also shows the percentage of companies equipped with ATM and the percentage of central offices equipped for equal access.

4. Telecommunications Patents

Another measure of developing technology is the number of U.S. patents. The U.S. Patent and Trademark Office maintain a file of over six million distinct U.S. patents granted. These patents are categorized by technology. Chart 17.1 shows the number of patents granted for telecommunications from 1990 to 2003. The information presented profiles U.S. patent activity in the general field of telecommunications. It includes all U.S. patent documents, except reissued patents, granted between January 1990 and December 31, 2003 which have been classified as follows:

> Class 370, *Multiplex Communications*, is the generic class for multiplexing or depleting systems, methods, or apparatus.
>
> Class 375, *Pulse or Digital Communications*, is the generic class for pulse or digital communication systems using electrical or electromagnetic signals. Such communication includes transmitting an intelligence-bearing signal from one point to another in the form of discrete variations in some parameter of the electrical or electromagnetic signal.
>
> Class 379, *Telephonic Communications*, includes systems, processes and instruments for the two-way electrical transmission of intelligible audio information having arbitrary content over a link (including an electrical conductor) between spaced apart locations, so as to enable conversation there between, and intended for the private use of a listener or a group of listeners. Also included are switching, signaling or signal transmission systems, processes and instruments peculiar to, or specified as for a telephone or a telephone system.
>
> Class 455, *Telecommunications*, is the generic class for modulated carrier wave communications.

Data for prior years differ from the August 2003 *Trends* report. Revisions to prior-year data reflect annual reclassification of patent categories. For example, if a patent type was reclassified in 1998, the data for prior years have been recalculated based on this reclassification.

5. Capital Expenditures

The FCC does not systematically collect information on capital expenditures from most carriers. Table 17.7 provides annual estimates of expenditures for structures and equipment for telecommunications carriers, taken from the U.S. Census Bureau, *Annual Capital Expenditures* survey. Chart 17.2 combines this expenditure data with FCC collected revenue data to show that for each dollar of revenue collected from end users in 2002, carriers invested 26 cents in structures and equipment.

Table 17.1
Central Offices and Access Lines by Technology
(Bell Operating Companies)

Year End	Total Offices	Electromechanical Offices		Analog Stored Program Controlled Offices		Digital Stored Program Controlled Offices	
1980	9,195	6,842	74.41 %	2,353	25.59 %	0	0.00 %
1981	9,198	6,647	72.27	2,527	27.47	24	0.26
1982	9,173	6,357	69.30	2,736	29.83	80	0.87
1983	9,156	6,075	66.35	2,910	31.78	171	1.87
1984	9,102	5,714	62.78	3,041	33.41	347	3.81
1985	9,124	5,244	57.47	3,020	33.10	860	9.43
1986	9,167	4,604	50.22	2,943	32.10	1,620	17.67
1987	9,190	3,819	41.56	2,833	30.83	2,538	27.62
1988	9,300	3,031	32.59	2,692	28.95	3,577	38.46
1989	9,338	2,416	25.87	2,519	26.98	4,403	47.15
1990	9,872	1,646	16.67	2,410	24.41	5,816	58.91
1991	9,951	1,148	11.54	2,167	21.78	6,636	66.69
1992	10,069	615	6.11	1,924	19.11	7,530	74.78
1993	10,089	296	2.93	1,554	15.40	8,239	81.66
1994	10,023	95	0.95	1,133	11.30	8,795	87.75
1995	10,051	60	0.60	976	9.71	9,015	89.69
1996	9,966	1	0.01	718	7.20	9,247	92.79
1997	9,965	0	0.00	548	5.50	9,417	94.50
1998	9,788	0	0.00	431	4.40	9,357	95.60
1999 [1]	9,968	0	0.00	320	3.21	9,648	96.79
2000 [2]	15,092	0	0.00	203	1.35	14,889	98.65
2001	15,109	0	0.00	139	0.92	14,970	99.08
2002	14,352 [3]	[4]	[4]	107	0.75	14,245 [3]	99.25
2003	14,373	[4]	[4]	84	0.58	14,289	99.42

Access Lines Served by Type of Office (Thousands)

Year End	All Offices	Electromechanical Offices		Analog Stored Program Controlled Offices		Digital Stored Program Controlled Offices	
1980	81,032	44,930	55.45 %	36,092	44.54 %	10	0.01 %
1981	82,581	40,425	48.95	42,099	50.98	57	0.07
1982	83,819	36,813	43.92	46,803	55.84	203	0.24
1983	86,186	32,652	37.89	52,919	61.40	615	0.71
1984	88,630	30,074	33.93	56,404	63.64	2,151	2.43
1985	91,455	24,778	27.09	58,532	64.00	8,145	8.91
1986	93,630	19,491	20.82	59,252	63.28	14,886	15.90
1987	96,593	14,205	14.71	59,442	61.54	22,946	23.76
1988	99,564	8,707	8.74	60,364	60.63	30,493	30.63
1989	102,684	5,646	5.50	58,846	57.31	38,192	37.19
1990	105,641	3,216	3.04	56,973	53.93	45,452	43.02
1991	107,388	1,876	1.75	53,450	49.77	52,061	48.48
1992	109,997	717	0.65	48,952	44.50	60,324	54.84
1993	113,368	264	0.23	41,912	36.97	71,192	62.80
1994	117,345	115	0.10	33,191	28.28	84,040	71.62
1995	122,266	63	0.05	29,031	23.74	93,172	76.20
1996	125,844	1	0.00	24,559	19.52	101,283	80.48
1997	131,722	0	0.00	21,219	16.11	110,503	83.89
1998	136,426	0	0.00	16,688	12.23	119,738	87.77
1999 [1]	141,763	0	0.00	11,925	8.41	129,838	91.59
2000 [2]	160,557	0	0.00	7,317	4.56	153,240	95.44
2001	155,543	0	0.00	4,810	3.09	150,732	96.91
2002	148,292 [3]	[4]	[4]	3,283	2.21	145,009 [3]	97.79
2003	142,698	[4]	[4]	2,427	1.70	140,271	98.30

Note: Because of different sources, the data for 1989 and earlier years may not be consistent with the data for 1990 and later years.

[1] Southern New England Telephone Company merged with SBC Communications October 26, 1998. Their data are included in this table starting with 1999.

[2] Large increase in 2000 is due to the merger of Bell Atlantic and GTE.

[3] The decrease in the number of switches and their associated lines from 2001 to 2002 is basically due to the sale of a number of study areas by Verizon.

[4] For 2002, the Commission eliminated the requirement that the Bell operating companies file electromechanical switch data. *See 2000 Biennial Regulatory Review – Comprehensive Review of the Accounting Requirements and ARMIS Reporting Requirements for Incumbent Local Exchange Carriers: Phase 2,* et al., CC Docket Nos. 00-199, 99-301, 97-212, 80-286, Report and Order in CC Docket Nos. 00-199, 97-212, and 80-286, Further Notice of Proposed Rulemaking in CC Docket Nos. 00-199, 99-301, and 80-286, 16 FCC Rcd 19911, 19770-72, paras. 161-165 (2001).

Sources: 1980-1989 reported in CC Docket 89-624.
1990-2002 reported in ARMIS 43-07.

Table 17.2
Features Available in Central Offices
(Bell Operating Companies)

Year End	Total Offices	Equal Access Offices		Signaling System 7 Offices [1]		ISDN Offices [2]	
1980	9,195	0	0.00 %	0	0.00 %	0	0.0 %
1981	9,198	0	0.00	0	0.00	0	0.0
1982	9,173	0	0.00	0	0.00	0	0.0
1983	9,156	0	0.00	0	0.00	0	0.0
1984	9,102	124	1.36	0	0.00	0	0.0
1985	9,124	1,891	20.73	0	0.00	0	0.0
1986	9,167	3,623	39.52	0	0.00	0	0.0
1987	9,190	4,823	52.48	29	0.32	4	0.0
1988	9,300	6,071	65.28	435	4.68	82	0.9
1989	9,338	6,788	72.69	931	9.97	179	1.9
1990	9,872	7,950	80.53	2,428	24.59	600	6.1
1991	9,951	8,601	86.43	3,670	36.88	920	9.2
1992	10,069	9,281	92.17	5,392	53.55	1,219	12.1
1993	10,089	9,697	96.11	6,688	66.29	1,874	18.6
1994	10,023	9,934	99.11	8,334	83.15	2,400	23.9
1995	10,051	9,978	99.27	8,977	89.31	2,868	28.5
1996	9,966	9,845	98.79	9,286	93.18	3,329	33.4
1997	9,965	9,936	99.71	9,688	97.22	3,902	39.2
1998	9,788	9,765	99.77	9,643	98.52	4,146	42.4
1999 [3]	9,968	9,925	99.57	9,844	98.76	4,424	44.4
2000 [4]	15,092	15,053	99.74	14,837	98.31	5,413	35.9
2001	15,109	15,106	99.98	14,969	99.07	5,465	36.2
2002	14,352 [5]	[6]	[6]	14,258 [5 6]	99.35	5,664	39.5
2003	14,373	[6]	[6]	14,314 [6]	99.59	5,672	39.5

Equipped Access Lines by Type of Office
(Thousands)

Year End	All Offices	Equal Access Offices		Signaling System 7 Offices [1]		ISDN Offices [2]	
1980	81,032	0	0.00 %	0	0.00 %	0	0.00 %
1981	82,581	0	0.00	0	0.00	0	0.00
1982	83,819	0	0.00	0	0.00	0	0.00
1983	86,186	146	0.17	0	0.00	0	0.00
1984	88,630	9,350	10.55	0	0.00	0	0.00
1985	91,455	49,241	53.84	0	0.00	0	0.00
1986	93,630	70,543	75.34	0	0.00	0	0.00
1987	96,593	81,743	84.63	1,035	1.07	12	0.01
1988	99,564	91,809	92.21	10,325	10.37	47	0.05
1989	102,684	97,410	94.86	21,917	21.34	111	0.11
1990	105,641	102,429	96.96	40,026	37.89	13,970	13.22
1991	107,388	105,413	98.16	57,321	53.38	20,567	19.15
1992	109,997	109,006	99.10	76,480	69.53	28,375	25.80
1993	113,368	112,993	99.67	92,493	81.59	39,875	35.17
1994	117,345	117,266	99.93	109,465	93.28	56,546	48.19
1995	122,266	122,210	99.95	116,568	95.34	71,274	58.29
1996	125,844	125,843	100.00	122,343	97.22	85,434	67.89
1997	131,722	131,722	100.00	130,778	99.28	95,956	72.85
1998	136,426	136,426	100.00	136,246	99.87	106,834	78.31
1999 [3]	141,763	141,763	100.00	141,685	99.94	113,999	80.42
2000 [4]	160,557	160,557	100.00	160,303	99.84	132,844	82.74
2001	155,543	155,543	100.00	155,363	99.88	129,075	82.98
2002	148,292 [5]	[6]	[6]	[6]	[6]	124,451 [5]	83.92
2003	142,698	[6]	[6]	[6]	[6]	119,403	83.68

Note: Because of different sources, the data for 1989 and earlier years may not be consistent with the data for 1990 and later years.

[1] Signaling System 7 Switch (SS7-317).

[2] ISDN basic access line capacity reported for 1990-2001. Note that not all lines served by ISDN-compatible switching offices actually receive ISDN service.

[3] Southern New England Telephone Company merged with SBC Communications October 26, 1998. Their data are included in this table starting with 1999.

[4] Large increase in 2000 is due to the merger of Bell Atlantic and GTE.

[5] The decrease in the number of switches and their associated lines from 2001 to 2002 is basically due to the sale of a number of study areas by Verizon.

[6] The Bell operating companies are no longer required to file equal access offices' data. *See 2000 Biennial Regulatory Review – Comprehensive Review of the Accounting Requirements and ARMIS Reporting Requirements for Incumbent Local Exchange Carriers: Phase 2,* et al., CC Docket Nos. 00-199, 99-301, 97-212, 80-286, Report and Order in CC Docket Nos. 00-199, 97-212, and 80-286, Further Notice of Proposed Rulemaking in CC Docket Nos. 00-199, 99-301, and 80-286, 16 FCC Rcd 19911, 19770-72, paras. 161-165 (2001).

Sources: 1980-1989 reported in CC Docket 89-624
1990-2002 reported in ARMIS 43-07.

Table 17.3

Switches by Metropolitan Statistical Area (MSA) and Non-MSA And Switches by Line Counts

Year	Total Switches MSA	Total Switches Non-MSA	Total Switches MSA and Non-MSA	Switches with Under 1,000 Lines	Switches with 1,000 - 4,999 Lines	Switches with 5,000 - 9,999 Lines	Switches with 10,000 - 19,999 Lines	Switches with 20,000 or More Lines
1996	8,711	7,426	16,137	4,594	5,758	1,770	1,431	2,584
1997	9,138	7,199	16,337	4,476	5,843	1,786	1,518	2,714
1998	9,011	7,492	16,503	4,374	6,027	1,821	1,527	2,754
1999	9,165	7,452	16,617	4,319	5,898	1,915	1,613	2,873
2000	9,058	6,340	15,398	3,472	5,538	1,869	1,632	2,888
2001	8,996	6,377	15,373	3,402	5,481	1,873	1,678	2,938
2002	9,181	6,336	15,517	3,618	5,610	1,857	1,645	2,787
2003	9,251	6,406	15,657	3,685	5,702	1,885	1,706	2,679

Note: The number of switches in Table 17.3 differs from Tables 17.1 and 17.2. Tables 17.1 and 17.2 are derived from the ARMIS 43-07, which is filed by the regional Bell operating companies. Table 17.3 is derived from the ARMIS 43-05, which is filed by incumbent local exchange carriers subject to price-cap regulation.

Table 17.4
Local Transmission Technology
(Bell Operating Companies)
Digital Transmission Links

Year End	Total	Copper		Fiber		Radio	
1990 [1]	2,895,117	1,092,041	37.7 %	1,737,984	60.0 %	65,092	2.2 %
1991	3,271,023	1,039,316	31.8	2,154,043	65.9	77,664	2.4
1992	3,564,847	864,931	24.3	2,610,185	73.2	89,731	2.5
1993	4,159,574	805,290	19.4	3,264,106	78.5	90,175	2.2
1994	4,495,728	568,197	12.6	3,846,394	85.6	81,137	1.8
1995	5,828,645	485,909	8.3	5,274,173	90.5	68,563	1.2
1996	7,955,574	433,758	5.5	7,477,395	94.0	44,421	0.6
1997	10,067,498	413,204	4.1	9,610,601	95.5	43,693	0.4
1998	13,558,832	420,488	3.1	13,099,829	96.6	38,515	0.3
1999	17,662,105	518,331	2.9	17,104,970	96.8	38,804	0.2
2000 [2]	24,334,009	771,385	3.2	23,523,610	96.7	39,014	0.2
2001	31,177,682	860,180	2.8	30,282,540	97.1	34,962	0.1
2002	[3]	[3]	[3]	[3]	[3]	[3]	[3]
2003	[3]	[3]	[3]	[3]	[3]	[3]	[3]

Note: A carrier link is defined as a segment of a carrier-derived interoffice transmission facility between points at which either a change in carrier technology (i.e., analog, digital) or transmission medium (i.e., copper, fiber, or radio) occurs. This table includes only those carrier links provided on digital technologies.

[1] 1990 contains some analog links.

[2] Large increase in 2000 is due to the merger of Bell Atlantic and GTE.

[3] For 2002, the Commission eliminated the requirement that the Bell operating companies file digital transmission links data. *See 2000 Biennial Regulatory Review – Comprehensive Review of the Accounting Requirements and ARMIS Reporting Requirements for Incumbent Local Exchange Carriers: Phase 2,* et al., CC Docket Nos. 00-199, 99-301, 97-212, 80-286, Report and Order in CC Docket Nos. 00-199, 97-212, and 80-286, Further Notice of Proposed Rulemaking in CC Docket Nos. 00-199, 99-301, and 80-286, 16 FCC Rcd 19911, 19770-72, paras. 161-165 (2001).

Working Telecommunications Channels
(Thousands)

Year End	Total	Copper		Fiber		Radio	
1990	122,564 [1]	106,373	86.8 %	3,546	2.9 %	0	0.0 %
1991	118,654	114,047	96.1	4,605	3.9	2	0.0
1992	120,848	114,609	94.8	6,238	5.2	1	0.0
1993	124,191	115,496	93.0	8,694	7.0	1	0.0
1994	130,192	118,437	91.0	11,755	9.0	0	0.0
1995	136,231	122,975	90.3	13,255	9.7	0	0.0
1996	142,824	125,595	87.9	17,228	12.1	1	0.0
1997	149,429	128,436	86.0	20,992	14.0	0	0.0
1998	172,916	134,629	77.9	38,286	22.1	0	0.0
1999 [2]	186,387	138,691	74.4	47,696	25.6	0	0.0
2000 [3]	218,928	157,840	72.1	61,086	27.9	2	0.0
2001	228,705	152,441	66.7	76,263	33.3	2	0.0
2002	169,157 [4]	137,228 [4]	81.1	31,927 [4]	18.9	1 [4]	0.0
2003	158,890	127,652	80.3	31,237	19.7	1	0.0

Note: Working Channels are reported in 4 kHz bandwidth (single-voice channel) equivalents.

[1] Includes some other channels.

[2] Southern New England Telephone Company merged with SBC Communications October 26, 1998. Their data are included in this table starting with 1999.

[3] Large increase in 2000 is due to the merger of Bell Atlantic and GTE.

[4] The large decrease from 2001 to 2002 is due in part to a number of Verizon companies refiling in order to remove interexchang carrier, point-of-presence, and co-location circuit counts to comply with ARMIS definitions.

Source: ARMIS 43-07 report.

Table 17.5
Central Offices Converted to Equal Access 1/
(As of February 1, 2005)

	Bell Company Central Offices			Other ILEC Central Offices			CLEC Central Offices			All Central Offices	
	Equal Access	Non-Equal Access	% Equal Access	Equal Access	Non-Equal Access	% Equal Access	Equal Access	Non-Equal Access	% Equal Access	Total Offices	% Equal Access
Alabama	148	0	100.0 %	218	0	100.0 %	34	0	100.0 %	400	100.0 %
Alaska	0	0	NA	82	177	31.7	0	0	NA	259	31.7
Arizona	146	0	100.0	103	6	94.5	37	1	97.4	293	97.6
Arkansas	136	0	100.0	259	2	99.2	25	3	89.3	425	98.8
California	904	2	99.8	93	1	98.9	198	3	98.5	1,201	99.5
Colorado	165	1	99.4	100	7	93.5	37	0	100.0	310	97.4
Connecticut	126	0	100.0	2	0	100.0	23	0	100.0	151	100.0
Delaware	33	0	100.0	0	0	NA	4	0	100.0	37	100.0
District of Columbia	19	0	100.0	0	0	NA	23	0	100.0	42	100.0
Florida	287	0	100.0	177	0	100.0	227	0	100.0	691	100.0
Georgia	181	0	100.0	242	5	98.0	79	0	100.0	507	99.0
Guam	0	0	NA	6	0	100.0	0	0	NA	6	100.0
Hawaii	86	0	100.0	6	0	100.0	8	0	100.0	100	100.0
Idaho	97	0	100.0	89	0	100.0	9	0	100.0	195	100.0
Illinois	697	4	99.4	325	7	97.9	66	2	97.1	1,101	98.8
Indiana	387	2	99.5	187	0	100.0	48	1	98.0	625	99.5
Iowa	135	0	100.0	674	1	99.9	46	0	100.0	856	99.9
Kansas	171	2	98.8	336	4	98.8	22	1	95.7	536	98.7
Kentucky	178	0	100.0	199	0	100.0	33	0	100.0	410	100.0
Louisiana	228	0	100.0	90	0	100.0	31	0	100.0	349	100.0
Maine	143	1	99.3	82	8	91.1	4	0	100.0	238	96.2
Maryland	216	0	100.0	1	0	100.0	32	0	100.0	249	100.0
Massachusetts	274	2	99.3	3	0	100.0	47	0	100.0	326	99.4
Michigan	541	7	98.7	169	0	100.0	55	0	100.0	772	99.1
Minnesota	156	0	100.0	550	4	99.3	113	0	100.0	823	99.5
Mississippi	206	0	100.0	62	0	100.0	18	0	100.0	286	100.0
Missouri	215	3	98.6	436	45	90.6	52	0	100.0	751	93.6
Montana	76	0	100.0	199	1	99.5	19	0	100.0	295	99.7
Nebraska	69	0	100.0	390	0	100.0	14	0	100.0	473	100.0
Nevada	55	0	100.0	62	3	95.4	14	0	100.0	134	97.8
New Hampshire	125	1	99.2	27	1	96.4	8	0	100.0	162	98.8
New Jersey	208	0	100.0	28	0	100.0	45	0	100.0	281	100.0
New Mexico	65	0	100.0	88	34	72.1	10	0	100.0	197	82.7
New York	526	1	99.8	302	6	98.1	108	0	100.0	943	99.3
North Carolina	182	0	100.0	321	1	99.7	97	0	100.0	601	99.8
North Dakota	27	0	100.0	243	19	92.7	12	0	100.0	301	93.7
Ohio	489	19	96.3	340	4	98.8	87	1	98.9	940	97.4
Oklahoma	208	2	99.0	296	19	94.0	24	1	96.0	550	96.0
Oregon	136	0	100.0	151	0	100.0	33	0	100.0	320	100.0
Pennsylvania	505	0	100.0	304	31	90.7	90	0	100.0	930	96.7
Puerto Rico	0	0	NA	86	0	100.0	2	0	100.0	88	100.0
Rhode Island	30	0	100.0	0	0	NA	7	0	100.0	37	100.0
South Carolina	156	0	100.0	122	0	100.0	45	0	100.0	323	100.0
South Dakota	42	0	100.0	202	7	96.7	9	0	100.0	260	97.3
Tennessee	195	0	100.0	166	0	100.0	46	1	97.9	408	99.8
Texas	796	2	99.7	689	12	98.3	214	5	97.7	1,718	98.9
Utah	64	0	100.0	91	5	94.8	15	0	100.0	175	97.1
Vermont	90	2	97.8	37	0	100.0	2	0	100.0	131	98.5
Virgin Islands	0	0	NA	5	0	100.0	0	0	NA	5	100.0
Virginia	326	0	100.0	134	7	95.0	65	0	100.0	532	98.7
Washington	219	0	100.0	147	2	98.7	46	0	100.0	414	99.5
West Virginia	145	0	100.0	83	6	93.3	4	0	100.0	238	97.5
Wisconsin	225	5	97.8	409	0	100.0	58	0	100.0	697	99.3
Wyoming	26	0	100.0	34	23	59.6	2	0	100.0	85	72.9
Total United States	10,860	56	99.5 %	9,447	448	95.5 %	2,347	19	99.2 %	23,177	97.7 %

NA - Not applicable.

1/ Some companies do not report information on their remote switches in Tariff No. 4. As a result, central office counts may be lower than reported in other sources.

Source: NECA FCC Tariff No. 4 database.

Table 17.6

Status of Network Capabilities of 2003 Access Market Survey Respondents: Selected Rural ILECs (Updated Mid 2003)

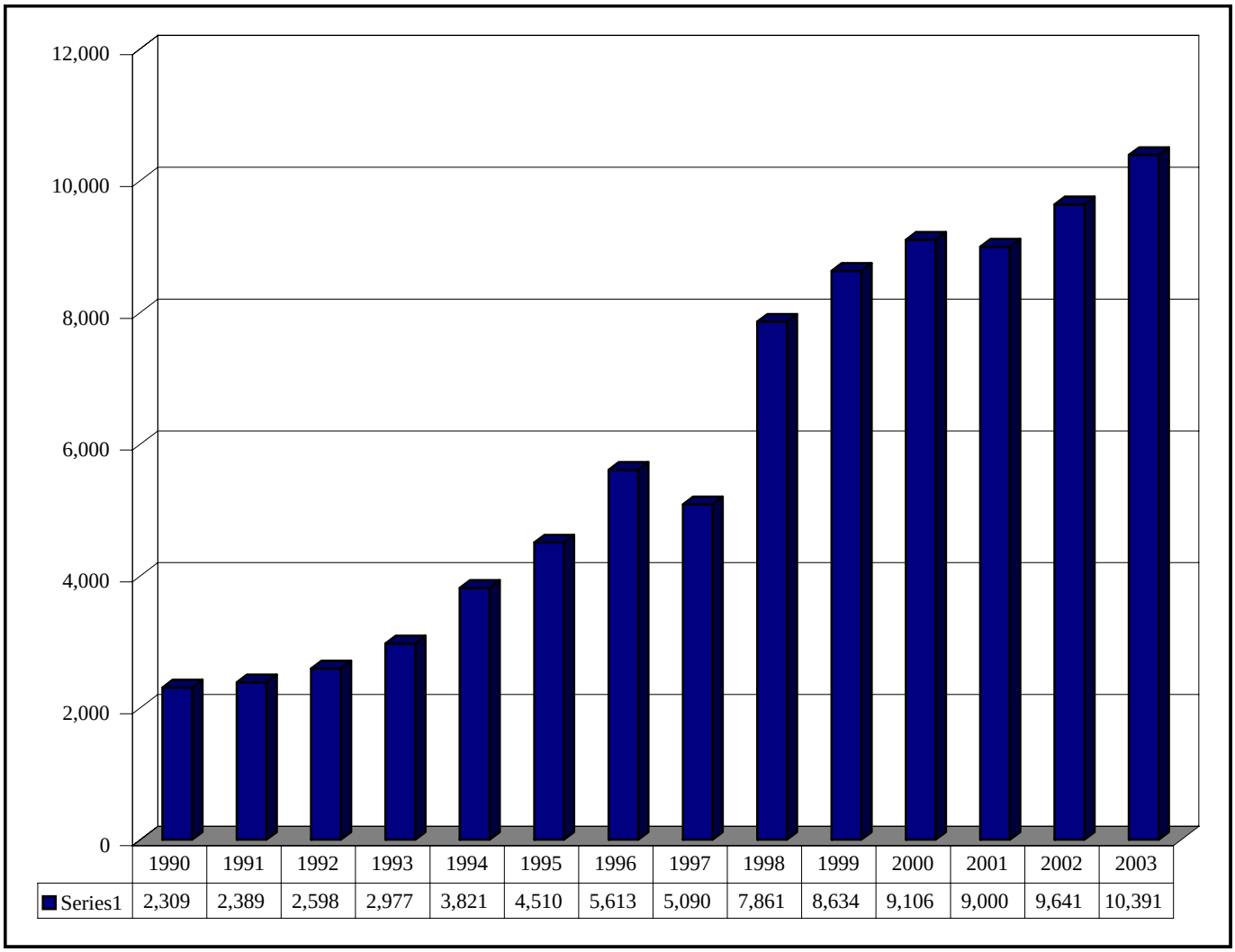
Jurisdiction	Companies	Offices	Access Lines	Equipped for DSL				Percent Companies Equipped with ATM	Central Offices Equipped for Equal Access [2]
				Central Offices	Switches	Companies [1]	Access Lines		
Alabama	21	82	121,879	71	86.6 %	71.4 %	86.1 %	19.1 %	98.8 %
Alaska	23	320	265,386	284	88.8	73.9	95.2	8.7	42.8
Arizona	13	54	38,936	35	64.8	53.9	71.6	7.7	100.0
Arkansas	23	209	335,160	186	89.0	78.3	94.1	43.5	99.5
California	14	46	85,122	32	69.6	64.3	76.4	7.1	93.5
Colorado	25	53	49,277	42	79.3	76.0	92.7	8.0	98.1
Connecticut	1	2	25,844	2	100.0	100.0	100.0	0.0	100.0
Florida	6	25	81,589	25	100.0	100.0	100.0	0.0	52.0
Georgia	28	109	326,852	62	62.4	67.9	70.4	7.1	95.4
Guam	1	18	66,251	-	0.0	0.0	0.0	0.0	100.0
Hawaii	1	9	954	9	100.0	100.0	100.0	0.0	100.0
Idaho	15	65	45,401	40	61.5	60.0	63.0	20.0	100.0
Illinois	19	55	30,035	46	83.6	57.9	74.2	0.0	98.2
Indiana	34	81	131,910	62	76.5	76.5	76.4	17.7	100.0
Iowa	143	332	210,561	283	85.2	78.3	84.9	7.0	95.2
Kansas	33	202	115,152	173	85.6	81.8	93.5	18.2	99.0
Kentucky	14	95	173,593	76	80.0	78.6	74.3	21.4	96.8
Louisiana	18	100	152,711	91	91.0	83.3	90.7	61.1	99.0
Maine	22	120	150,291	83	69.2	63.6	64.9	13.6	99.2
Maryland	1	1	7,781	1	100.0	100.0	100.0	0.0	100.0
Massachusetts	2	2	4,173	2	100.0	100.0	100.0	0.0	100.0
Michigan	32	100	110,595	65	65.0	71.9	81.7	18.8	97.0
Minnesota	76	319	315,243	215	67.4	61.8	75.4	10.5	99.7
Mississippi	15	59	75,882	30	50.9	53.3	64.1	13.3	93.2
Missouri	34	287	227,463	260	90.6	67.7	91.0	17.7	97.6
Montana	15	212	97,789	186	87.7	93.3	79.8	13.3	89.6
Nebraska	36	146	73,961	114	78.1	75.0	75.8	5.6	100.0
Nevada	7	30	32,154	17	56.7	57.1	81.6	28.6	86.7
New Hampshire	7	22	41,006	20	90.9	71.4	96.5	28.6	95.5
New Mexico	12	78	44,688	62	79.5	58.3	82.0	25.0	98.7
New York	29	80	158,945	55	68.8	72.4	67.3	24.1	98.8
North Carolina	16	63	290,110	55	87.3	68.8	91.7	37.5	95.2
North Dakota	27	246	156,277	216	87.8	70.4	91.7	33.3	99.2
Ohio	31	66	201,971	34	51.5	77.4	28.2	0.0	100.0
Oklahoma	34	276	204,626	137	49.6	61.8	57.7	11.8	99.3
Oregon	26	55	75,661	46	83.6	88.5	97.5	0.0	100.0
Pennsylvania	19	128	570,664	45	35.2	84.2	41.3	15.8	100.0
South Carolina	14	56	135,064	46	82.1	85.7	86.6	28.6	100.0
South Dakota	25	173	111,401	135	78.0	84.0	81.2	20.0	99.4
Tennessee	20	129	335,877	88	68.2	75.0	75.4	50.0	96.1
Texas	48	335	274,835	249	74.3	70.8	77.9	16.7	98.2
Utah	12	57	70,772	57	100.0	100.0	100.0	0.0	100.0
Vermont	9	45	64,780	29	64.4	77.8	66.0	55.6	100.0
Virginia	15	49	80,697	36	73.5	66.7	73.5	6.7	98.0
Washington	17	45	86,615	32	71.1	70.6	78.1	11.8	100.0
West Virginia	6	13	16,464	8	61.5	50.0	67.1	0.0	100.0
Wisconsin	74	336	549,897	267	79.5	68.9	85.6	27.0	100.0
Wyoming	6	27	25,072	25	92.6	66.7	86.7	0.0	96.3
Totals	1,119	5,412	6,847,367	4,140	76.0 %	73.2 %	79.0 %	15.8 %	96.0 %

[1] "Percent of Companies" indicates that the service is available at those companies, not that all customers at each of those companies subscribe to that service.

[2] Equal access gives customers a choice of long distance carrier. Although not a new service, NECA continues to track progress toward the goal of 100% equal access capability.

Source: National Exchange Carrier Association, *Fulfilling the Digital Dream;* survey of more than 1,000 small, mostly rural telephone companies.

Chart 17.1
Telecommunications Patents



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Series1	2,309	2,389	2,598	2,977	3,821	4,510	5,613	5,090	7,861	8,634	9,106	9,000	9,641	10,391

Note: 1996 total reflects one-time change in law affecting patents.

Source: U.S. Patent and Trademark Office, *Patent Counts by Class by Year, January 1977 - December 2003*, Telecommunications Classes 370, 375, 379 and 455, (March 2004).

Table 17.7
Capital Expenditures for Structures and Equipment 1/
(Expenditure Amounts Shown in Millions)

	NAICS Code 2/	1995	1996	1997	1998	1999	2000	2001	2002
Wireline Telecommunications Carriers	51331								
Expenditures for Structures									
New					$10,652	3/	$18,021	$14,482	$7,820
Used					12	3/	205	18	1
Total					10,664	17,309	18,226	14,500	7,821
Expenditures for Equipment									
New					39,828	3/	55,902	57,436	26,986
Used					78	3/	77	38	12
Total					39,905	42,442	55,980	57,474	26,998
Total Expenditures for Structures and Equipment					$50,570	$59,752	$74,206	$71,974	$34,819
Wireless Telecommunications Carriers Except Satellite	51332								
Expenditures for Structures									
New					$2,387	$5,026	$7,674	$11,313	$8,245
Used					*	3	58	8	7
Total					2,387	5,030	7,732	11,321	8,252
Expenditures for Equipment									
New					5,841	9,350	17,589	12,695	12,210
Used					6	43	161	13	29
Total					5,841	9,393	17,750	12,708	12,238
Total Expenditures for Structures and Equipment					$8,228	$14,422	$25,482	$24,028	$20,490
Telecommunications Resellers, Satellite, and Other Telecommunications	51333, 51334 and 51339								
Expenditures for Structures									
New					$2,089	$1,410	$1,951	$2,233	$1,556
Used					*	4	3	5	3
Total					2,089	1,414	1,954	2,238	1,560
Expenditures for Equipment									
New					4,188	8,795	11,495	7,288	4,119
Used					4	49	164	78	12
Total					4,192	8,845	11,659	7,367	4,131
Total Expenditures for Structures and Equipment					$6,281	$10,259	$13,613	$9,605	$5,691
Telephone and Other Communications Services									
Expenditures for Structures									
New		$6,545	$9,193	$9,672	$15,128	3/	$27,646	$28,028	$17,621
Used		263	185	218	12	3/	266	31	11
Total		6,809	9,378	9,890	15,140	23,753	27,912	28,059	17,633
Expenditures for Equipment									
New		30,802	37,985	46,667	49,857	3/	84,986	77,419	43,315
Used		138	299	406	88	3/	402	129	53
Total		30,939	38,283	47,074	49,938	60,680	85,389	77,549	43,367
Total Expenditures for Structures and Equipment		$37,799	$47,661	$56,963	$65,079	$84,433	$113,301	$105,607	$61,000

Note: Detail may not add to totals shown due to rounding.

* Represents amounts greater than $0 but less than $500,000.

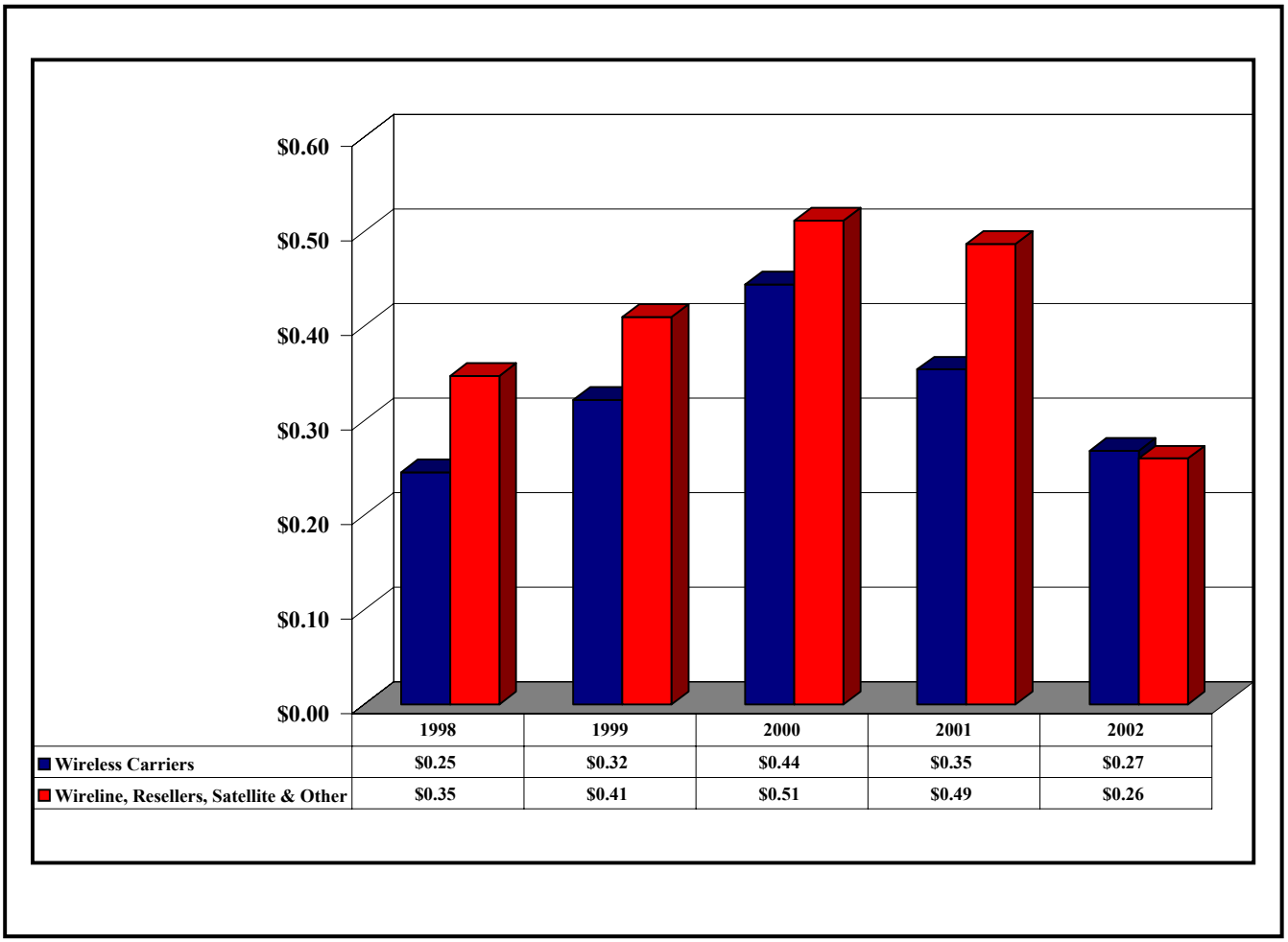
1/ Capital expenditures include capitalized computer sofware, capitalized interest during construction and expenditures for land development and improvement. Capital expenditures exclude equipment acquired under operating leases, good will, and expenditures for subsidiaries and branches located outside the United States.

2/ For 1995 through 1997, data represent Standard Industrial Classification (SIC) industries 481, 482, and 489. Starting in 1998, data are based on the North American Industry Classification System (NAICS).

3/ Data withheld by the Census Bureau to maintain firm confidentiality.

Source: U.S. Census Bureau, *Annual Capital Expenditures.*

Chart 17.2
Capital Expenditures for Structures and Equipment by Carrier
Per Dollar of End-User Telecommunications Revenues[1]



	1998	1999	2000	2001	2002
Wireless Carriers	$0.25	$0.32	$0.44	$0.35	$0.27
Wireline, Resellers, Satellite & Other	$0.35	$0.41	$0.51	$0.49	$0.26

Note: These end-user revenue totals represent amounts billed by type of carrier and differ from the totals in Table 15.1, which show end-user revenues by type of service.

[1] The chart incorporates the following end-user revenue data ($ millions)

	1998	1999	2000	2001	2002
Wireless	$33,573	$44,804	$57,429	$67,896	$76,501
Wireline & Resellers	163,879	170,959	171,720	167,617	155,933
Total	$197,452	$215,763	$229,149	$235,513	$232,434

Source: U.S. Census Bureau, *Annual Capital Expenditures;* Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2004).

18 Telephone Numbers

In 1994, many area codes were nearing exhaustion as demand for telephone numbers continued to rise. Adding new area codes was difficult because some older telephone equipment was designed to recognize only area codes with a middle digit of 0 or 1, and the supply of those area codes was dwindling. On January 1, 1995, the restriction on the middle digit was removed, and 640 new area codes were made available. During 1995, fourteen new area codes were assigned -- the largest single-year expansion of area codes in decades. Twenty area codes were added in 1996, forty-four in 1997, twenty in 1998, twenty-four in 1999, thirteen in 2000, twenty-six in 2001, nine in 2002, three in 2003, and two were added in 2004. There are two new codes scheduled to be added in 2005. The above counts of area code activation are for the contiguous United States, offshore points, Canada, and the Caribbean. Table 18.1 shows historical area code information by state from 1947 to 2003. The changes in area codes from 1984 to April 2003 are shown in Table 18.2. Area codes are assigned by the North American Numbering Plan Administration (NANPA), which is part of Neustar, Inc.

Toll-free service was first introduced in 1967 by AT&T. On May 1, 1993, procedures for routing toll-free (800) calls were changed and 800 numbers were made "portable." This enables customers to change service providers while still retaining the same 800 number. There has been tremendous growth in the toll-free market. In March 1996, a second toll-free calling code (888) was placed in service; the third toll-free calling code (877) went into effect April 4, 1998; and the fourth toll-free calling code (866) went into effect July 29, 2000. The growth of toll-free telephone numbers for the four toll-free codes (800, 888, 877, and 866) is shown in Table 18.3 and Chart 18.1. Tables 18.4 through 18.7 show the growth of each individual toll-free code: 800, 888, 877, and 866, respectively. The next toll-free code scheduled for service is 855, which was scheduled for November 18, 2000, but was delayed. Database Service Management, Inc./Team DSMI, a subsidiary of Telcordia Technologies, Inc., maintains the Toll-Free Service Management System for the United States and Canada, a portability system for toll-free numbers.

Dialing patterns differ from state to state. For instance, in some states, callers making local calls within an area code are required to only dial the 7-digit phone number. In other states, callers making local calls must dial the ten-digit phone number (area code plus the phone number). Finally, in some states, local callers must dial a “1” before dialing the area code plus the phone number. Each state’s public utilities commission (or public service commission) determines the calling pattern for each area code in their state. The dialing patterns for area codes are listed in area code planning letters, which are available on the North American Numbering Plan Administrator’s web site at www.nanpa.com.

For both local and domestic toll calls, there are two basic types of calls: those within an area code and those between area codes. Table 18.8 shows the dialing patterns for all four types of calls. The last column of Table 18.8 indicates whether all toll calls in that state require callers to dial a “1” before the telephone number.

Table 18.1
Area Codes by State
(1947 - 2005)

Area Code	State/Jurisdiction	Area Code Opened	Area Code	State/ Jurisdiction	Area Code	Area Code	State/ Jurisdiction	Area Code Opened	Area Code	State/ Jurisdiction	Area Code Opened	Area Code	State/ Jurisdiction	Area Code Opened
205	Alabama	Jan-47	786	Florida	Mar-98	443	Maryland	Jun-97	315	New York	Jan-47	615	Tennessee	Jan-54
334	Alabama	Jan-95	727	Florida	Jul-98	413	Massachusetts	Jan-47	518	New York	Jan-47	423	Tennessee	Sep-95
256	Alabama	Mar-98	863	Florida	Sep-99	617	Massachusetts	Jan-47	716	New York	Jan-47	931	Tennessee	Sep-97
251	Alabama	Jun-01	321	Florida	Nov-99	508	Massachusetts	Jul-88	914	New York	Jan-47	865	Tennessee	Nov-99
907	Alaska	Jan-57	386	Florida	Feb-01	781	Massachusetts	Sep-97	516	New York	Jan-51	731	Tennessee	Feb-01
602	Arizona	Jan-47	754	Florida	Aug-01	978	Massachusetts	Sep-97	607	New York	Jan-54	214	Texas	Jan-47
520	Arizona	Mar-95	772	Florida	Feb-02	339	Massachusetts	May-01	718	New York	Sep-84	512	Texas	Jan-47
480	Arizona	Mar-99	239	Florida	Mar-02	351	Massachusetts	May-01	917	New York	Jan-92	713	Texas	Jan-47
623	Arizona	Mar-99	404	Georgia	Jan-47	774	Massachusetts	May-01	646	New York	Jul-99	915	Texas	Jan-47
928	Arizona	Jun-01	912	Georgia	Jan-54	857	Massachusetts	May-01	347	New York	Oct-99	817	Texas	Jan-53
501	Arkansas	Jan-47	706	Georgia	May-92	313	Michigan	Jan-47	631	New York	Nov-99	806	Texas	Jan-57
870	Arkansas	Apr-97	770	Georgia	Aug-95	517	Michigan	Jan-47	845	New York	Jun-00	409	Texas	Nov-82
479	Arkansas	Jan-02	678	Georgia	Jan-98	616	Michigan	Jan-47	585	New York	Nov-01	903	Texas	Nov-90
213	California	Jan-47	229	Georgia	Aug-00	906	Michigan	Jan-61	704	North Carolina	Jan-47	210	Texas	Nov-92
415	California	Jan-47	478	Georgia	Aug-00	810	Michigan	Dec-93	919	North Carolina	Jan-54	972	Texas	Sep-96
916	California	Jan-47	671	Guam	Jul-97	248	Michigan	May-97	910	North Carolina	Nov-93	281	Texas	Nov-96
714	California	Jan-51	808	Hawaii	Jan-57	734	Michigan	Dec-97	336	North Carolina	Dec-97	254	Texas	May-97
805	California	Jan-57	208	Idaho	Jan-47	231	Michigan	Jun-99	252	North Carolina	Mar-98	940	Texas	May-97
209	California	Jan-58	217	Illinois	Jan-47	989	Michigan	Apr-01	828	North Carolina	Mar-98	830	Texas	Jul-97
408	California	Jan-59	312	Illinois	Jan-47	586	Michigan	Sep-01	980	North Carolina	Apr-01	956	Texas	Jul-97
707	California	Jan-59	618	Illinois	Jan-47	269	Michigan	Jul-02	701	North Dakota	Jan-47	832	Texas	Jan-99
619	California	Jan-82	815	Illinois	Jan-47	947	Michigan	Sep-02	670	Northern Marianas Is.	Jul-97	361	Texas	Feb-99
818	California	Jan-84	309	Illinois	Jan-57	218	Minnesota	Jan-47	216	Ohio	Jan-47	469	Texas	Jul-99
510	California	Sep-91	708	Illinois	Nov-89	612	Minnesota	Jan-47	419	Ohio	Jan-47	979	Texas	Feb-00
310	California	Nov-91	847	Illinois	Jan-96	507	Minnesota	Jan-54	513	Ohio	Jan-47	936	Texas	Feb-00
909	California	Nov-92	630	Illinois	Aug-96	320	Minnesota	Mar-96	614	Ohio	Jan-47	682	Texas	Oct-00
562	California	Jan-97	773	Illinois	Oct-96	651	Minnesota	Jul-98	330	Ohio	Mar-96	430	Texas	Feb-03
760	California	Mar-97	224	Illinois	Jan-02	763	Minnesota	Feb-00	937	Ohio	Sep-96	325	Texas	Apr-03
626	California	Jun-97	219	Indiana	Jan-47	952	Minnesota	Feb-00	440	Ohio	Aug-97	432	Texas	Apr-03
650	California	Aug-97	317	Indiana	Jan-47	601	Mississippi	Jan-47	740	Ohio	Dec-97	340	US Virgin Islands	Jun-97
530	California	Nov-97	812	Indiana	Jan-47	228	Mississippi	Sep-97	234	Ohio	Oct-00	801	Utah	Jan-47
925	California	Mar-98	765	Indiana	Feb-97	662	Mississippi	Apr-99	567	Ohio	Jan-02	435	Utah	Sep-97
949	California	Apr-98	260	Indiana	Jan-02	769	Mississippi	Mar-05	405	Oklahoma	Jan-47	802	Vermont	Jan-47
323	California	Jun-98	574	Indiana	Jan-02	314	Missouri	Jan-47	918	Oklahoma	Jan-53	703	Virginia	Jan-47
831	California	Jul-98	319	Iowa	Jan-47	816	Missouri	Jan-47	580	Oklahoma	Nov-97	804	Virginia	Jun-73
559	California	Nov-98	515	Iowa	Jan-47	417	Missouri	Jan-50	503	Oregon	Jan-47	540	Virginia	Jul-95
661	California	Feb-99	712	Iowa	Jan-47	573	Missouri	Jan-96	541	Oregon	Nov-95	757	Virginia	Jul-96
858	California	Jun-99	641	Iowa	Jul-00	660	Missouri	Oct-97	971	Oregon	Oct-00	571	Virginia	Mar-00
951	California	Jul-04	563	Iowa	Mar-01	636	Missouri	May-99	215	Pennsylvania	Jan-47	434	Virginia	Jun-01
303	Colorado	Jan-47	316	Kansas	Jan-47	406	Montana	Jan-47	412	Pennsylvania	Jan-47	276	Virginia	Sep-01
719	Colorado	Mar-88	913	Kansas	Jan-47	402	Nebraska	Jan-47	717	Pennsylvania	Jan-47	206	Washington	Jan-47
970	Colorado	Apr-95	785	Kansas	Jul-97	308	Nebraska	Jan-55	814	Pennsylvania	Jan-47	509	Washington	Jan-57
720	Colorado	Jun-98	620	Kansas	Feb-01	702	Nevada	Jan-47	610	Pennsylvania	Jan-94	360	Washington	Jan-95
203	Connecticut	Jan-47	502	Kentucky	Jan-47	775	Nevada	Dec-98	724	Pennsylvania	Feb-98	253	Washington	Apr-97
860	Connecticut	Aug-95	606	Kentucky	Jan-55	603	New Hampshire	Jan-47	570	Pennsylvania	Dec-98	425	Washington	Apr-97
302	Delaware	Jan-47	270	Kentucky	Apr-99	201	New Jersey	Jan-47	484	Pennsylvania	Jun-99	304	West Virginia	Jan-47
202	District of Columbia	Jan-47	859	Kentucky	Apr-00	609	New Jersey	Jan-57	267	Pennsylvania	Jul-99	414	Wisconsin	Jan-47
305	Florida	Jan-47	504	Louisiana	Jan-47	908	New Jersey	Nov-90	878	Pennsylvania	Aug-01	715	Wisconsin	Jan-47
813	Florida	Jan-53	318	Louisiana	Jan-57	732	New Jersey	Jun-97	787	Puerto Rico	Mar-96	608	Wisconsin	Jan-55
904	Florida	Jan-65	225	Louisiana	Aug-98	973	New Jersey	Jun-97	939	Puerto Rico	Sep-01	920	Wisconsin	Jul-97
407	Florida	Apr-88	337	Louisiana	Oct-99	856	New Jersey	Jun-99	401	Rhode Island	Jan-47	262	Wisconsin	Sep-99
941	Florida	May-95	985	Louisiana	Feb-01	551	New Jersey	Dec-01	803	South Carolina	Jan-47	307	Wyoming	Jan-47
954	Florida	Sep-95	207	Maine	Jan-47	848	New Jersey	Dec-01	864	South Carolina	Dec-95			
352	Florida	Dec-95	301	Maryland	Jan-47	862	New Jersey	Dec-01	843	South Carolina	Mar-98			
561	Florida	May-96	410	Maryland	Oct-91	505	New Mexico	Jan-47	605	South Dakota	Jan-47			
850	Florida	Jun-97	240	Maryland	Jun-97	212	New York	Jan-47	901	Tennessee	Jan-47			

Source: North American Numbering Plan Administrator.

Table 18.2
Area Code Assignments
(1999-2004)

Location	Date	Previous Code	Added Code
Texas (Houston)	1/99	281	832
Texas (Houston)	1/99	713	832
Alberta	1/99	403	780
California	2/99	805	661
Texas	2/99	512	361
Arizona	3/99	602	480
Arizona	3/99	602	623
Kentucky	4/99	502	270
Mississippi	4/99	601	662
Missouri	5/99	314	636
Michigan	6/99	616	231
Pennsylvania	6/99	215	267
Pennsylvania	6/99	610	484
California	6/99	619	858
New Jersey	6/99	609	856
New York (Manhattan)	7/99	212	646
Texas (Dallas)	7/99	214	469
Texas (Dallas)	7/99	972	469
Florida	9/99	941	863
Wisconsin	9/99	414	262
Louisiana	10/99	318	337
Florida	11/99	407	321
New York	11/99	516	631
Tennessee	11/99	423	865
Texas	2/00	409	936
Texas	2/00	409	979
Minnesota	2/00	612	763
Minnesota	2/00	612	952
Virginia	3/00	703	571
Kentucky	4/00	606	859
New York	6/00	914	845
Iowa	7/00	515	641
Georgia	8/00	912	478
Georgia	8/00	912	229
Oregon	10/00	503	971
Texas	10/00	817	682
Ohio	10/00	330	234
Kansas	2/01	316	620
Tennessee	2/01	901	731
Louisiana	2/01	504	985
Florida	2/01	904	386
Ontario	3/01	416	647
Iowa	3/01	319	563
North Carolina	4/01	704	980
Michigan	4/01	517	989

Table 18.2
Area Code Assignments -- Continued
(1999-2004)

Location	Date	Previous Code	Added Code
Massachusetts	5/01	781	339
Massachusetts	5/01	978	351
Massachusetts	5/01	508	774
Massachusetts	5/01	617	857
Virginia	6/01	804	434
Ontario	6/01	905	289
Alabama	6/01	334	251
Arizona	6/01	520	928
Florida	8/01	954	754
Pennsylvania	8/01	412	878
Virginia	9/01	540	276
Puerto Rico	9/01	787	939
Michigan	9/01	810	586
British Columbia	11/01	604	778
New York	11/01	716	585
New Jersey	12/01	201	551
New Jersey	12/01	732	848
New Jersey	12/01	973	862
Ohio	1/02	419	567
Illinois	1/02	847	224
Indiana	1/02	219	260
Indiana	1/02	219	574
Arkansas	1/02	501	479
Florida	2/02	561	772
Florida	3/02	941	239
Michigan	7/02	616	269
Michigan	9/02	248	947
Texas	2/03	903	430
Texas	4/03	915	325
Texas	4/03	915	432
California	7/04	909	951
American Samoa	10/04	809	684
Mississippi	3/05	601	769
Dominican Republic	8/05	809	829
Ontario	10/06	519	226
Quebec	11/06	514	438

NA - Not applicable.

Note: For years 1984 - 1998, see Industry Analysis Division, Wireline Competition Bureau, *Trends in Telephone Service* (August 2003).

Source: North American Numbering Plan Administrator (NANPA), which can be accessed at www.nanpa.com.

Table 18.3

Telephone Numbers Assigned for Toll-Free Service (800, 888, 877, 866)
(Summary December 1993 - December 2004)

Year	Month	Working Toll-Free Numbers	Miscellaneous Toll-Free Numbers [1]	Total Toll-Free Numbers Assigned	Spare Toll-Free Numbers Still Available
1993	December	3,155,955	731,438	3,887,393	3,822,607
1994	December	4,948,605	763,235	5,711,840	1,998,160
1995	December	6,700,576	286,487	6,987,063	722,937
1996	December	9,527,982	945,671	10,473,653	5,216,347
1997	December	12,980,714	996,449	13,977,163	1,712,837
1998	December	16,200,883	965,466	17,166,349	6,503,651
1999	December	19,677,001	1,101,964	20,778,965	2,891,035
2000	December	23,022,015	1,178,096	24,200,111	7,449,889
2001	December	23,453,029	1,027,973	24,481,002	7,168,998
2002	December	22,496,215	1,051,232	23,547,447	8,102,553
2003	December	21,108,662	941,520	22,050,182	9,599,818
2004	December	22,159,440	1,145,661	23,305,101	8,344,899

Note: For individual month assignments through June 2003, see Industry Analysis and Technology Division, Wireline Competition Bureau, *Trends in Telephone Service* (August 2003).

* Toll-free (800) service was initially offered by AT&T in 1967. On May 1, 1993, procedures for routing toll-free calls were changed and 800 numbers were made "portable" so customers who switched service providers could retain their numbers. Due to the growth in toll-free numbers, a new toll-free calling code, 888, was added in March 1996, which made it possible to assign about 8 million new toll-free numbers. A third toll-free calling code, 877, was added in April 1998; and a fourth toll-free code, 866, was added in July 2000.

[1] Miscellaneous numbers include those in the 800, 888, 877, and 866 service management systems maintained by Database Service Management, Inc., and categorized as reserved, assigned but not yet activated, recently disconnected, or suspended.

Chart 18.1
Working Toll-Free Numbers
(Numbers in Millions)

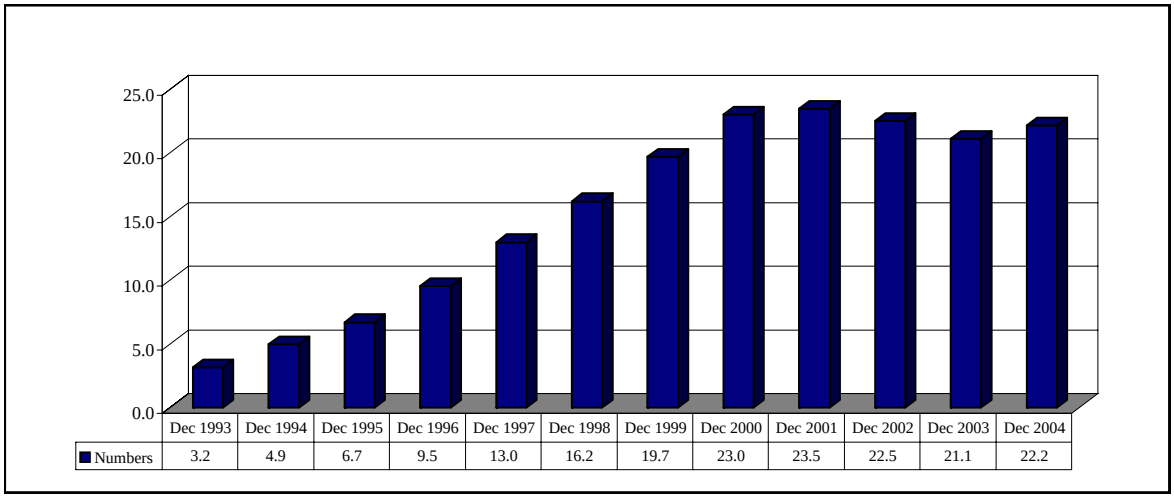


Table 18.4

Telephone Numbers Assigned for 800 Toll-Free Service

Year	Month	Working 800 Numbers	Miscellaneous 800 Numbers [1]	Total 800 Numbers Assigned	Spare 800 Numbers Still Available
1993	June	2,589,123	722,006	3,311,129	4,398,871
	September	2,818,262	639,547	3,457,809	4,252,191
	December	3,155,955	731,438	3,887,393	3,822,607
1994	March	3,516,620	743,813	4,260,433	3,449,567
	June	3,933,037	792,698	4,725,735	2,984,265
	September	4,506,014	841,381	5,347,395	2,362,605
	December	4,948,605	763,235	5,711,840	1,998,160
1995	March	5,528,723	793,771	6,322,494	1,387,506
	June	6,340,534	481,633	6,822,167	887,833
	September	6,503,018	437,215	6,940,233	769,767
	December	6,700,576	286,487	6,987,063	722,937
1996	March	6,907,098	293,244	7,200,342	509,658
	June	6,986,821	324,899	7,311,720	398,280
	September	7,119,167	310,562	7,429,729	280,271
	December	7,272,819	343,905	7,616,724	93,276
1997	March	7,402,769	305,362	7,708,131	1,869
	June	7,415,591	293,802	7,709,393	607
	September	7,427,717	280,668	7,708,385	1,615
	December	7,429,160	267,429	7,696,589	13,411
1998	March	7,455,240	249,964	7,705,204	4,796
	June	7,480,468	227,041	7,707,509	2,491
	September	7,489,271	219,080	7,708,351	1,649
	December	7,487,529	215,267	7,702,796	7,204
1999	March	7,498,527	204,515	7,703,042	6,958
	June	7,502,118	207,061	7,709,179	821
	September	7,523,302	185,363	7,708,665	1,335
	December	7,505,737	202,416	7,708,153	1,847
2000	March	7,516,391	193,246	7,709,637	363
	June	7,570,082	139,444	7,709,526	474
	September	7,572,091	137,705	7,709,796	204
	December	7,566,810	132,887	7,699,697	10,303
2001	March	7,434,621	264,967	7,699,588	10,412
	June	7,357,279	242,106	7,599,385	110,615
	September	7,383,111	164,881	7,547,992	162,008
	December	7,370,055	184,689	7,554,744	155,256
2002	March	7,181,636	400,955	7,582,591	127,409
	June	7,234,847	282,005	7,516,852	193,148
	September	7,200,821	177,723	7,378,544	331,456
	December	7,210,159	203,268	7,413,427	296,573
2003	March	7,182,120	224,536	7,406,656	303,344
	June	7,171,068	234,576	7,405,644	304,356
	September	7,031,806	222,846	7,254,652	455,348
	December	7,089,752	260,807	7,350,559	359,441
2004	March	7,187,381	234,719	7,422,100	287,900
	June	7,181,216	187,107	7,368,323	341,677
	September	7,262,915	197,252	7,460,167	249,833
	December	7,332,085	208,368	7,540,453	169,547

See Table 18.3 notes.

Table 18.5

Telephone Numbers Assigned for 888 Toll-Free Service

Year	Month	Working 888 Numbers	Miscellaneous 888 Numbers [1]	Total 888 Numbers Assigned	Spare 888 Numbers Still Available
1996	March	267,874	568,574	836,448	7,143,552
	June	922,849	544,079	1,466,928	6,513,072
	September	1,641,519	590,345	2,231,864	5,748,136
	December	2,255,163	601,766	2,856,929	5,123,071
1997	March	2,857,608	661,164	3,518,772	4,461,228
	June	3,660,984	681,981	4,342,965	3,637,035
	September	4,776,688	774,431	5,551,119	2,428,881
	December	5,551,554	729,020	6,280,574	1,699,426
1998	March	6,167,479	728,415	6,895,894	1,084,106
	June	6,591,764	665,496	7,257,260	722,740
	September	6,898,718	612,254	7,510,972	469,028
	December	7,146,159	515,009	7,661,168	318,832
1999	March	7,278,531	495,904	7,774,435	205,565
	June	7,428,424	231,697	7,660,121	319,879
	September	7,601,867	211,318	7,813,185	166,815
	December	7,643,158	324,405	7,967,563	12,437
2000	March	7,685,423	230,035	7,915,458	64,542
	June	7,789,986	140,658	7,930,644	49,356
	September	7,806,252	173,588	7,979,840	160
	December	7,789,188	177,328	7,966,516	13,484
2001	March	7,616,189	355,451	7,971,640	8,360
	June	7,548,761	270,198	7,818,959	161,041
	September	7,508,100	203,518	7,711,618	268,382
	December	7,452,071	190,727	7,642,798	337,202
2002	March	6,964,624	577,910	7,542,534	437,466
	June	6,629,862	354,771	6,984,633	995,367
	September	6,682,043	92,050	6,774,093	1,205,907
	December	6,610,191	154,015	6,764,206	1,215,794
2003	March	6,408,723	324,558	6,733,281	1,246,719
	June	6,228,846	251,701	6,480,547	1,499,453
	September	5,818,266	216,862	6,035,128	1,944,872
	December	5,711,949	250,662	5,962,611	2,017,389
2004	March	5,680,105	133,824	5,813,929	2,166,071
	June	5,640,743	128,141	5,768,884	2,211,116
	September	5,716,957	210,068	5,927,025	2,052,975
	December	5,563,469	384,320	5,947,789	2,032,211

See Table 18.3 notes.

Table 18.6

Telephone Numbers Assigned for 877 Toll-Free Service

Year	Month	Working 877 Numbers	Miscellaneous 877 Numbers [1]	Total 877 Numbers Assigned	Spare 877 Numbers Still Available
1998	June	552,037	209,967	762,004	7,217,996
	September	1,072,046	206,714	1,278,760	6,701,240
	December	1,567,195	235,190	1,802,385	6,177,615
1999	March	2,141,228	329,044	2,470,272	5,509,728
	June	2,899,466	410,026	3,309,492	4,670,508
	September	3,755,361	436,433	4,191,794	3,788,206
	December	4,528,106	575,143	5,103,249	2,876,751
2000	March	5,436,297	598,702	6,034,999	1,945,001
	June	6,317,507	402,858	6,720,365	1,259,635
	September	6,539,180	496,015	7,035,195	944,805
	December	6,391,285	719,333	7,110,618	869,382
2001	March	6,289,079	469,980	6,759,059	1,220,941
	June	6,094,898	715,097	6,809,995	1,170,005
	September	6,163,297	489,084	6,652,381	1,327,619
	December	6,214,863	345,468	6,560,331	1,419,669
2002	March	6,174,529	340,472	6,515,001	1,464,999
	June	6,016,107	267,320	6,283,427	1,696,573
	September	5,656,158	275,722	5,931,880	2,048,120
	December	5,448,276	421,984	5,870,260	2,109,740
2003	March	5,132,413	579,240	5,711,653	2,268,347
	June	4,791,792	376,236	5,168,028	2,811,972
	September	4,617,147	170,787	4,787,934	3,192,066
	December	4,536,366	191,410	4,727,776	3,252,224
2004	March	4,528,716	163,856	4,692,572	3,287,428
	June	4,550,870	146,826	4,697,696	3,282,304
	September	4,537,840	214,197	4,752,037	3,227,963
	December	4,551,486	254,082	4,805,568	3,174,432

See Table 18.3 notes.

Table 18.7

Telephone Numbers Assigned for 866 Toll-Free Service

Year	Month	Working 866 Numbers	Miscellaneous 866 Numbers [1]	Total 866 Numbers Assigned	Spare 866 Numbers Still Available
2000	September	672,250	155,646	827,896	7,152,104
	December	1,274,732	148,548	1,423,280	6,556,720
2001	March	1,652,602	361,888	2,014,490	5,965,510
	June	1,944,520	362,880	2,307,400	5,672,600
	September	2,256,792	308,801	2,565,593	5,414,407
	December	2,416,040	307,089	2,723,129	5,256,871
2002	March	2,640,414	321,530	2,961,944	5,018,056
	June	2,864,605	219,232	3,083,837	4,896,163
	September	2,977,379	244,297	3,221,676	4,758,324
	December	3,227,589	271,965	3,499,554	4,480,446
2003	March	3,461,686	299,700	3,761,386	4,218,614
	June	3,486,674	420,477	3,907,151	4,072,849
	September	3,609,244	265,446	3,874,690	4,105,310
	December	3,770,595	238,641	4,009,236	3,970,764
2004	March	3,966,922	231,683	4,198,605	3,781,395
	June	4,281,378	263,560	4,544,938	3,435,062
	September	4,476,150	281,577	4,757,727	3,222,273
	December	4,712,400	298,891	5,011,291	2,968,709

See Table 18.3 notes.

Table 18.8
Dialing Patterns of the United States
Number of Digits Necessary to Dial Local and Toll Calls
(As of January 2004)

State	Local Calls		Toll Calls		Toll Calls Require
	Within Same Area Code	Between Area Codes	Within Same Area Code	Between Area Codes	Dialing 1 +
Alabama	7 [1]	10 [2]	1 + 10	1 + 10	Yes
Alaska	7	1 + 10	1 + 10	1 + 10	Yes
Arizona	7	10	1 + 10	1 + 10	Yes
Arkansas	7	10	1 + 10	1 + 10	Yes
California	7	1 + 10	7	1 + 10	No
Colorado	7 [3]	10 [4]	1 + 10	1 + 10	Yes
Connecticut	7 [5]	10	1 + 10	1 + 10	Yes
Delaware	7	10	1 + 10	1 + 10	Yes
District of Columbia	7	10	NA	1 + 10	Yes
Florida	7 [6]	10	1 + 10	1 + 10	Yes
Georgia	7 [7]	10	1 + 10	1 + 10	Yes
Hawaii	7	NA	1 + 10	1 + 10	Yes
Idaho	7	7	1 + 10	1 + 10	Yes
Illinois	7 [8]	1 + 10	1 + 10	1 + 10	Yes
Indiana	7	10	1 + 10	1 + 10	Yes
Iowa	7	10	1 + 10	1 + 10	Yes
Kansas	7	10	1 + 10	1 + 10	Yes
Kentucky	7	10 [9]	1 + 10	1 + 10	Yes
Louisiana	7	10	1 + 10	1 + 10	Yes
Maine	7	1 + 10	1 + 10	1 + 10	Yes
Maryland	10	10	1 + 10	1 + 10	Yes
Massachusetts	10 [10]	10	1 + 10	1 + 10	Yes
Michigan	7 [11]	1 + 10 [12]	1 + 10	1 + 10	Yes
Minnesota	7	10 [13]	1 + 10	1 + 10	Yes
Mississippi	7	10	1 + 10	1 + 10	Yes
Missouri	7 [14]	10	1 + 10	1 + 10	Yes
Montana	7	7	1 + 10	1 + 10	Yes
Nebraska	7	7	1 + 10	1 + 10	Yes
Nevada	7	10	1 + 10	1 + 10	Yes
New Hampshire	7	1 + 10	7	1 + 10	No
New Jersey	10 [15]	1 + 10	10 [15]	1 + 10	No
New Mexico	7	NA	1 + 10	1 + 10	Yes
New York	7 [16]	1 + 10	7 [16]	1 + 10	No
North Carolina	7 [17]	10	1 + 10	1 + 10	Yes
North Dakota	7	7	1 + 10	1 + 10	Yes
Ohio	7 [18]	10	1 + 10	1 + 10	Yes
Oklahoma	7	7	1 + 10	1 + 10	Yes
Oregon	10 [19]	10	1 + 10	1 + 10	Yes
Pennsylvania	10 [20]	1 + 10 [21]	10 [20]	1 + 10	No
Rhode Island	7	1 + 10	7	1 + 10	No
South Carolina	7	10	1 + 10	1 + 10	Yes
South Dakota	7	7	1 + 10	1 + 10	Yes
Tennessee	7	10 [22]	1 + 10	1 + 10	Yes
Texas	7 [23]	10	1 + 10	1 + 10	Yes
Utah	7	10 [24]	1 + 10	1 + 10	Yes
Vermont	7	1 + 10	1 + 10	1 + 10	Yes
Virginia	7 [25]	10	1 + 10	1 + 10	Yes
Washington	7 [26]	10	1 + 10	1 + 10	Yes
West Virginia	7	7	1 + 10	1 + 10	Yes
Wisconsin	7	1 + 10	1 + 10	1 + 10	Yes
Wyoming	7	7	1 + 10	1 + 10	Yes

NA - Not Applicable.

Source: Planning letters for individual area codes. Planning letters are available at www.nanpa.com.

Notes to Table 18.8.

[1] In area code 659, 10-digit dialing is used.
[2] In area code 659, 1+10-digit dialing is used.
[3] In area codes 303 and 720, 10-digit dialing is used.
[4] In area code 970, 7-digit dialing may be used.
[5] In area codes 475 and 959, 10-digit dialing is used.
[6] In area codes 305, 321, 407, 689, 754, 786, and 954, 10-digit dialing is used.
[7] In area codes 404, 470, 678, and 770, 10-digit dialing is used.
[8] In area codes 224 and 847, 1+ 10-digit dialing is used.
[9] In area codes 270 and 502, 7-digit dialing is used.
[10] In area code 413, 7-digit dialing is used.
[11] In area codes 248, 679 and 947, 10-digit dialing is used.
[12] In area codes 269, 679 and 947, 10-digit dialing is used.
[13] In area codes 218, 320, and 507, 7-digit dialing is used.
[14] In area codes 557 and 975, 10-digit dialing is used.
[15] In area codes 609, 856, and 908, 7-digit dialing is used.
[16] In area codes 212, 347, 646, 718, and 917, 1+10 digit dialing is used.
[17] In area codes 704, 980 and 984, 10-digit dialing is used.
[18] In area codes 234, 283, 330, 380, 419, and 567, 10-digit dialing is used.
[19] In area code 541, 7-digit dialing is used.
[20] In area codes 570, 717, and 814, 7-digit dialing is used.
[21] In some area codes, local calls to some other area codes may be dialed using 10 digits.
[22] In area codes 615 and 931, 7-digit dialing is used.
[23] In area codes 214, 281, 430, 469, 682, 713, 817, 832, 903, and 972, 10-digit dialing is used.
[24] In area code 435, 7-digit dialing is used.
[25] In area codes 571 and 703, 10-digit dialing is used.
[26] In area code 564, 10-digit dialing is used.

19 Universal Service

1. Overview

There are four universal service support mechanisms: 1) High Cost, 2) Low Income, including Lifeline and Link-Up, 3) Schools and Libraries, and 4) Rural Health Care.[1] High Cost support enables carriers with above-average costs to recover some of these costs from the support mechanisms, allowing these carriers to lower their end-user rates and/or to receive less money from state universal service support mechanisms.

The Lifeline program promotes increased telephone subscribership by providing low-income households with discounts on the monthly cost of telephone service. The Link-Up America program promotes telephone subscribership by helping low-income households pay the initial costs of commencing telephone service.

Schools and Libraries support enables eligible schools and libraries to obtain eligible services, including telecommunications services, at discounted rates. Rural Health Care support allows rural health care providers to purchase telecommunications services at comparable urban rates.

Table 19.1 shows universal service support disbursements for 2003 and 2004.[2] Chart 19.1 shows this information graphically for 2004. Table 19.2 and Chart 19.2 show the type of service providers that received universal service support in 2003.

2. High Cost

The High Cost support mechanisms include embedded high-cost loop support (HCLS),[3] safety net additive support (SNAS), safety valve support (SVS), local switching support (LSS), forward-looking high-cost model support (HCMS), interstate access support (IAS) for price-cap carriers, and interstate common line support (ICLS) for rate-of-return carriers.[4]

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[1] Additional information on universal service mechanisms is available in the *Universal Service Monitoring Report* (October 2004). See http://www.fcc.gov/wcb/iatd/monitor.html.

[2] The schools and libraries mechanism and the rural health care mechanism operate on a school-year basis rather than a calendar-year basis, so for the purposes of Table 19.1, Funding Year 2003 (July 1, 2003 through June 30, 2004) disbursements were used for these two mechanisms. The majority of Funding Year 2003 disbursements for these two mechanisms were made in calendar year 2004.

[3] This was formerly referred to as the Universal Service Fund, and still bears that name in the Commission rules. It is now referred to as high-cost loop support to avoid confusion with the new, more comprehensive universal service support mechanisms that the Commission developed to implement the 1996 Act. *See* 47 C.F.R. § 36.601.

[4] Prior to July 1, 2004, rate-of-return carriers were eligible to receive long-term support (LTS). Since that date,

HCLS provides assistance to companies with above average non-traffic-sensitive local loop costs – terminology that refers to the costs of providing loops connecting customers and their serving telephone company central office. In addition, SNAS provides assistance to companies that have large increases in telecommunications plant in service. SVS provides additional assistance to rural carriers that make substantial investment after acquiring exchanges.

LSS provides assistance to LECs with study areas of 50,000 or fewer access lines to help defray their higher per-line switching costs. HCMS provides assistance for non-rural carriers based on their forward-looking costs of providing supported services as determined by the Commission's cost model. The IAS mechanism provides support to price-cap carriers to replace the implicit support previously collected through interstate access charges. The ICLS mechanism converts support implicit in the access rate structure of rate-of-return carriers to explicit and portable support. ICLS recovers any shortfall between the allowed common line revenues of rate of return carriers and their subscriber line charge revenues. As noted above, LTS was merged into ICLS as of July 1, 2004.

Table 19.3 shows HCLS, LTS, LSS, HCMS, IAS, ICLS, SNAS, and SVS payments from 1986 to 2004. Table 19.4 shows payments by state for 2004.

Table 19.5 shows high-cost support payments to ILECs and competitive eligible telecommunications carriers (CETCs) from 1996 to the present. Chart 19.4 shows the percent of high-cost support received by CETCs. Table 19.6 shows high-cost support payments by state for 2004 to ILECs and CETCs and also to rural and non-rural carriers.

3. Low-Income Support: Lifeline and Link-Up

The Lifeline program promotes increased telephone subscribership by providing low-income households with discounts on the monthly cost of telephone service. The Link-Up America program increases telephone subscribership by helping low-income households pay the initial costs of commencing telephone service.

The Lifeline program was created in 1984, and the Link-Up program was created in 1987. For both of these programs, the rules were later modified to make the distribution of low-income support competitively and technologically neutral by allowing all eligible telecommunications carriers, including wireless carriers, to receive support for providing Lifeline and Link-Up service. In June 2000, the Commission further expanded the Lifeline and Link-Up programs to address the needs of households on tribal lands.[5]

Eligibility requirements for Lifeline and Link-Up vary from state to state. In a state that has its own Lifeline program, the state may create its own eligibility requirements for the federal Lifeline program. Those criteria must be based solely on income or factors directly related to

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LTS was merged into ICLS.

[5] *Federal-State Joint Board on Universal Service; Promoting Deployment and Subscribership in Unserved and Underserved Areas, Including Tribal and Insular Areas,* Twelfth Report and Order, and Further Notice of Proposed Rulemaking, CC Docket No. 96-45, FCC 00-208, 15 FCC Rcd 12,208 (2000).

income. In addition, a state commission must ensure that its qualification criteria are reasonably designed to reach eligible residents of tribal lands within the state. In those states that do not have their own Lifeline program, known as federal default states, Lifeline eligibility requirements are set by the FCC. In federal default states, households must certify that they participate in at least one of the following seven federal programs: Medicaid, food stamps, Supplemental Security Income (SSI), federal public housing assistance, the Low-Income Home Energy Assistance Program (LIHEAP), the National School Lunch Program's free lunch program, or Temporary Assistance to Needy Families. By June 2005, consumers may also be able to qualify if their income is at or below 135% of the federal poverty guidelines.

Eligible consumers living on tribal lands can receive federal Lifeline support if they (a) meet their state's Lifeline eligibility requirements; (b) certify that they are enrolled in one of the seven federal programs listed above; or (c) participate in one of the following federal assistance programs: Bureau of Indian Affairs (BIA) general assistance program, tribally administered Temporary Assistance for Needy Families (TANF), or Head Start (meeting the income-qualifying standard).

Under the Commission's rules, there are four tiers of federal Lifeline support.[6] The first tier represents a monthly waiver of the federal subscriber line charge, which ranges between $3.50 and $6.50, varying by state and the carrier providing service. Second-tier support is an additional $1.75 per-month reduction in the basic local rate. All Lifeline subscribers receive at least the first two tiers of federal support. The third tier of federal support is based on the amount of additional support mandated by the relevant state or otherwise provided by carriers. Federal support is available to match one-half of the tier-three support provided, up to a maximum of $1.75 in federal support. Eligible subscribers living on tribal lands also qualify to receive a fourth tier of Lifeline support. Tier-four support provides up to an additional $25 per month although all subscribers on tribal lands must pay at least $1 per month.

The Commission's Link-Up program provides qualified low-income individuals with a federally financed 50% discount on initial connection charges up to $30. Link-Up beneficiaries also may choose to schedule deferred payments of up to $200 over a one-year period, with the customary interest charges paid through federal support. Eligible subscribers living on tribal lands may receive an additional discount of up to $70 to cover 100% of the charges between $60 and $130.

Table 19.7 shows the minimum, maximum and average monthly Lifeline support as of March 31, 2004, by state or jurisdictions. The table contains both federal and state support, and indicates the additional contribution from the federal program to reduce local rates where states have authorized statewide or carrier specific intrastate local rate reductions.

Table 19.8 contains historical Lifeline subscriber and Link-Up beneficiary data for 1987 through 2004. Table 19.9 presents tribal and non-tribal lifeline subscriber and Link-Up beneficiary data by state for 2003 and 2004.

[6] In addition, the Lifeline program compensates eligible telecommunication carriers for toll limitation service (TLS).

Table 19.10 and Chart 19.5 contain annual historical low-income support payments for the years 1988 through 2004. Table 19.11 shows low-income support payments by state or jurisdiction for 2004.

4. Schools and Libraries

The schools and libraries support mechanism also known as the "E Rate" enables schools and libraries to obtain eligible services at discounted rates. Eligible schools and libraries receive telecommunications services, Internet access, and internal connections at discounts that range from 20 percent to 90 percent. The level of the discount is generally based on the percentage of students eligible for the national school lunch program, or in the case of libraries, the percentage of students eligible for the national school lunch program in the school district where the library is located. In addition, schools and libraries located in rural areas receive an additional discount.

Table 19.12 shows funding commitments and disbursements to schools and libraries by funding year since 1998. The commitments and disbursements are shown by the type of service funded (internal connections, Internet access, and telecommunications). Chart 19.6 graphically shows the total schools' and libraries' funds committed and disbursed. Table 19.13 shows, on a state-by-state basis, funding commitments to schools and libraries for the July 1, 2003 through June 30, 2004 Funding Year.

5. Rural Health Care

The Rural Health Care support mechanism enables health care providers in rural areas to pay no more than their urban counterparts for similar telecommunications services necessary for the provision of health care. Eligible rural health care providers can also receive a 25% discount off the monthly cost of Internet access reasonably related to the health care needs of the facility. Additionally, rural health care providers in *entirely rural* states are eligible to receive a 50% discount off the monthly cost of advanced telecommunications and information services reasonably related to the health care needs of the facility. Further, mobile rural health care providers utilizing satellite service can receive support for the difference between the rate for the satellite service and the rate for an urban wireline service with a similar bandwith.

Table 19.14 and Chart 19.7 show rural health care fund disbursements by service speed since 1998. Table 19.15 shows rural health care fund disbursements by service speed and on a state-by-state basis for the funding period July 1, 2003 through June 30, 2004.

6. Contributions to the Universal Service Fund

Carriers contribute to universal service support mechanisms based on interstate and international end-user revenues. Since November 1999, all contributions to the USF are based on interstate end-user revenues. Table 19.16 shows interstate and intrastate contribution rates since the first quarter of 1998. Table 19.17 shows changes in the shares of contributions over time by type of service provider. Shares have changed because of differential pricing and growth trends and because wireless carriers now report a greater share of their revenues as interstate revenues.

Table 19.1
Universal Service Support Mechanisms
(Dollars in Millions)

Mechanism	2003		2004	
	Disbursements	Percent of Total	Disbursements	Percent of Total
High-Cost Support	**$3,273**	**60.0 %**	**$3,488**	**64.2 %**
High-Cost Loop Support	1,085	19.9	1,137	20.9
Safety Net Additive Support	9	0.2	12	0.2
High-Cost Model Support	234	4.3	273	5.0
Long-Term Support	504	9.2	275	5.1
Interstate Common Line Support	399	7.3	727	13.4
Interstate Access Support	622	11.4	642	11.8
Local Switching Support	420	7.7	422	7.8
Low-Income Support	**716**	**13.1**	**759**	**14.0**
School and Libraries *	**1,445**	**26.5**	**1,172**	**21.6**
Rural Health Care *	**21**	**0.4**	**15**	**0.3**
All Universal Service Support	**$5,456**	**100.0 %**	**$5,433**	**100.0 %**

* Schools and libraries, and rural health care programs operate on a school year rather than a calendar year. Amounts for those programs in 2003 are for July 1, 2002 to June 30, 2003, and figures for 2004 are for July 1, 2003 to June 30, 2004. Figures for these two programs are preliminary and are based on activity through December 31, 2004.

Note: Figures may not add due to rounding.

Source: Universal Service Administration Company (USAC).

Chart 19.1
Distribution of Universal Service Payments

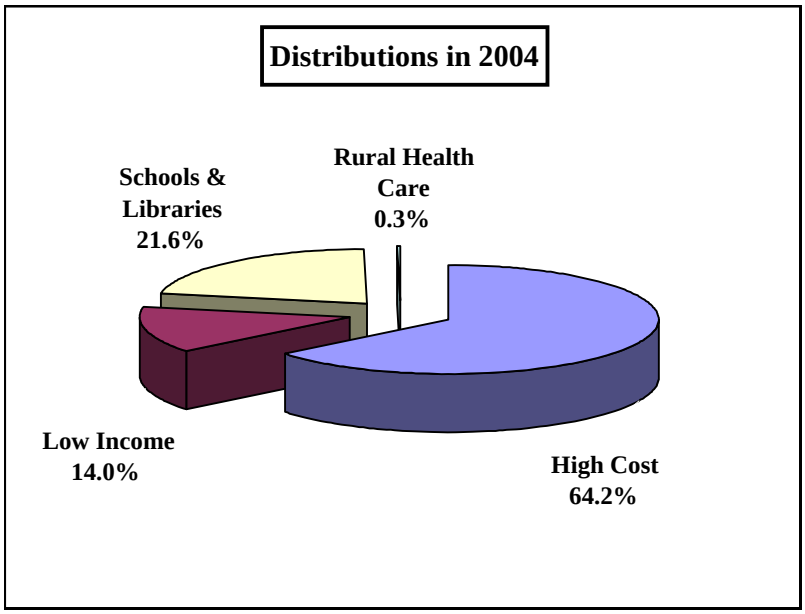


Table 19.2
Universal Service Support Received by Service Provider Type: 2004
(Dollars in Thousands)

	High Cost	Low Income	Rural Health Care	Schools and Libraries	Total	Percent of Total
Incumbent Local Exchange Carriers	$3,154,510	$718,586	$422	$433,418	$4,306,936	80.9 %
Wireless Providers [1]	323,161	27,330	0	45,633	396,124	7.4
Non-Traditional Providers [2]	0	0	0	268,997	268,997	5.1
Competitive Local Exchange Carriers [3]	9,900	12,911	424	112,302	135,537	2.5
Long Distance Providers [4]	0	0	229	72,156	72,385	1.4
Internet Service Providers	0	0	0	71,894	71,894	1.4
Other Providers [5]	0	0	71	71,838	71,909	1.4
Total	$3,487,571	$758,827	$1,147	$1,076,237	$5,323,782	100.0 %

[1] Non-traditional providers provide eligible software, hardware, and network devices.

[2] Wireless providers include cellular, PCS and other mobile providers.

[3] Competitive local exchange carriers include competitive access providers, local resale, other local and shared tenant service providers.

[4] Long distance providers include interexchange, operator service, toll resale and other toll providers.

[5] Other providers' services include paging and messaging, payphone service, private service, satellite service, specialized mobile service and wireless data.

Source: Preliminary data provided to the FCC by USAC.

Chart 19.2
Universal Service Support Received by Service Provider Type

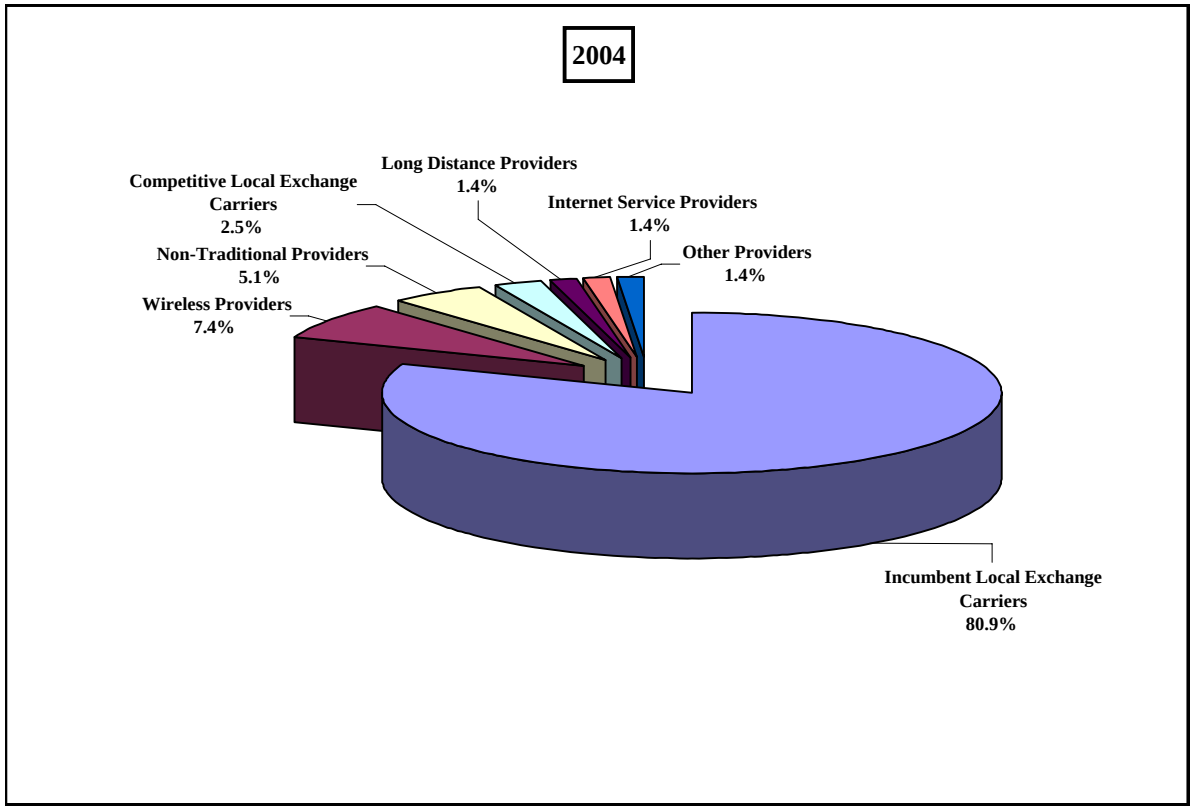


Table 19.3
High-Cost Support Fund Payment History
(In Millions of Dollars)

Year	High-Cost Loop Support	Safety Net Additive Support	Safety Valve Support	High-Cost Model Support	Long-Term Support	Interstate Common Line Support	Interstate Access Support	Local Switching Support	Total Support
1986	$56	-	-	-	-	-	-	-	$56
1987	126	-	-	-	-	-	-	-	126
1988	183	-	-	-	-	-	-	-	183
1989	265	-	-	-	$236	-	-	-	500
1990	339	-	-	-	263	-	-	-	602
1991	485	-	-	-	272	-	-	-	757
1992	609	-	-	-	306	-	-	-	915
1993	705	-	-	-	323	-	-	-	1,028
1994	725	-	-	-	347	-	-	-	1,072
1995	750	-	-	-	382	-	-	-	1,132
1996	763	-	-	-	426	-	-	-	1,188
1997	794	-	-	-	470	-	-	-	1,263
1998	827	-	-	-	473	-	-	$390	1,690
1999	864	-	-	-	473	-	-	380	1,718
2000	874	-	-	$219	478	-	$279	385	2,235
2001	927	-	-	206	492	-	577	390	2,592
2002	1,045	-	-	233	493	$173	615	376	2,935
2003	1,085	$9	$0	234	504	399	622	420	3,273
2004	1,137	12	0	273	275	727	642	422	3,488
2005 *	1,186	15	5	290	-	1,076	650	441	3,663

Note: Detail may not appear to add to totals due to rounding.
- Support mechanism did not exist in that year.
* Estimate for 2005 based on USAC projections.
Sources: National Exchange Carrier Association (1986-1997),
Universal Service Administrative Company (1998-2004).
Federal Universal Service Support Mechanisms Fund Size Projections for the Second Quarter 2005 (2005).

Chart 19.3
Total High-Cost Support Fund Payments

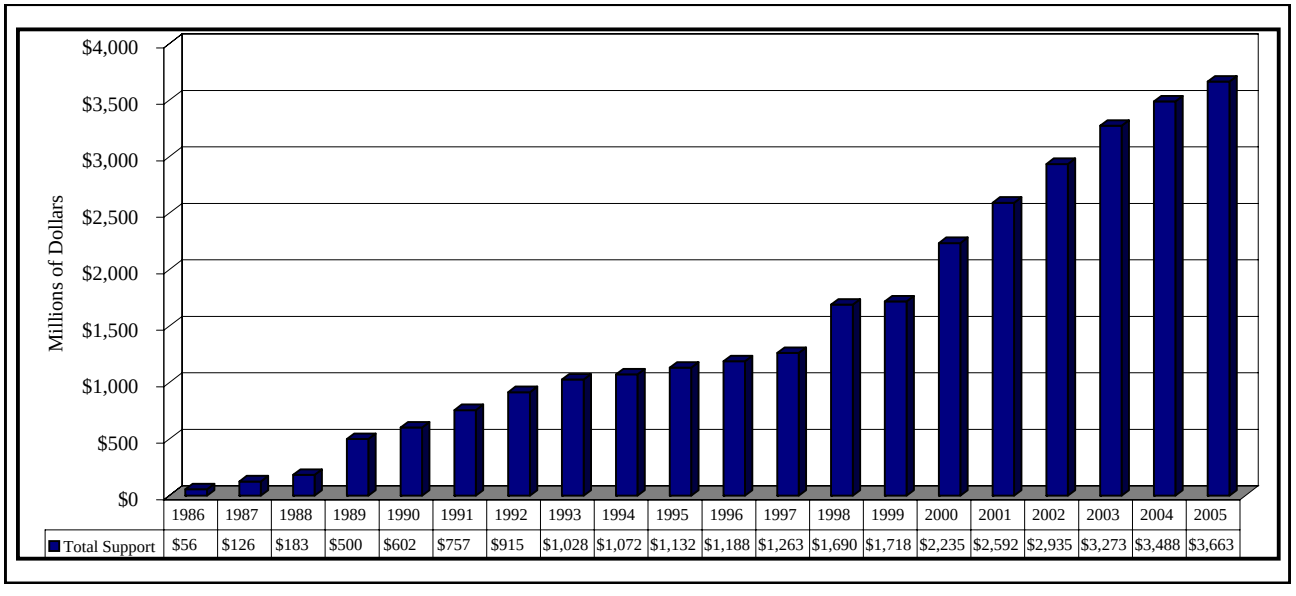


Table 19.4
High-Cost Support Payments by State: 2004
(In Thousands of Dollars)

	High-Cost Loop Support	Safety Net Additive Support	High-Cost Model Support	Long-Term Loop Support	Interstate Common Line Support	Interstate Access Support	Local Switching Support	Total Support
Alabama	$16,928	$200	$42,622	$3,838	$10,718	$18,797	$6,423	$99,527
Alaska	48,041	254	0	9,442	23,550	0	14,292	95,578
American Samoa	768	0	0	137	523	0	531	1,959
Arizona	39,849	119	0	1,759	8,486	19,449	8,658	78,320
Arkansas	65,480	247	0	6,682	38,002	17,186	8,618	136,215
California	37,449	197	0	6,392	14,128	31,136	6,072	95,373
Colorado	37,676	71	0	7,716	12,785	20,910	5,317	84,475
Connecticut	0	0	0	88	695	810	619	2,211
Delaware	0	0	0	0	0	266	0	266
District of Columbia	0	0	0	0	0	0	0	0
Florida	10,688	0	0	2,408	8,008	59,857	3,740	84,700
Georgia	42,423	388	0	9,612	27,165	15,808	15,741	111,137
Guam	4,776	0	0	907	1,546	0	0	7,229
Hawaii	4,851	-1	0	84	4,435	2,331	1,228	12,928
Idaho	21,358	115	0	1,876	6,608	15,995	8,048	54,001
Illinois	12,351	208	0	3,283	12,250	12,453	12,059	52,604
Indiana	8,684	152	0	2,755	9,689	25,104	8,415	54,799
Iowa	16,888	1,194	0	5,539	26,765	6,691	24,764	81,842
Kansas	68,840	638	0	6,198	30,036	8,050	14,086	127,849
Kentucky	18,062	176	16,315	2,548	12,433	16,828	4,666	71,028
Louisiana	59,326	140	0	9,678	18,004	10,607	6,777	104,532
Maine	8,915	0	2,137	3,353	8,074	306	8,253	31,037
Maryland	280	74	0	49	693	1,174	584	2,854
Massachusetts	102	0	0	55	277	1,097	721	2,253
Michigan	23,439	74	0	5,849	11,056	396	8,969	49,783
Minnesota	28,587	955	0	8,240	31,652	4,503	21,529	95,466
Mississippi	19,422	4	136,773	2,693	6,772	17,958	3,337	186,961
Missouri	42,033	273	0	5,040	20,941	14,501	7,317	90,105
Montana	26,821	170	17,806	5,376	13,759	1,182	9,974	75,089
Nebraska	13,919	842	4,190	2,050	10,626	4,974	10,439	47,039
Nevada	6,169	153	0	539	3,905	10,086	7,201	28,053
New Hampshire	682	0	0	812	2,478	1,998	5,861	11,831
New Jersey	0	0	0	0	24	438	693	1,155
New Mexico	20,625	118	0	3,388	8,585	7,981	10,282	50,978
New York	9,007	831	0	3,076	5,863	15,901	16,628	51,306
North Carolina	15,713	0	0	6,277	16,325	34,870	5,804	78,988
North Dakota	16,049	99	0	4,467	18,271	762	15,149	54,797
Northern Mariana Islands	-70	0	0	0	0	287	664	881
Ohio	8,896	348	0	2,711	6,098	15,633	4,362	38,047
Oklahoma	50,775	249	0	8,147	22,640	4,785	15,395	101,990
Oregon	26,828	165	0	5,533	12,091	18,852	8,029	71,498
Pennsylvania	1,661	21	0	7,259	21,724	19,181	4,886	54,732
Puerto Rico	-1	0	0	60,779	53,952	0	0	114,730
Rhode Island	0	0	0	0	0	56	0	56
South Carolina	24,381	531	0	5,875	25,478	14,090	5,703	76,058
South Dakota	22,424	441	1,537	3,453	17,866	177	10,637	56,535
Tennessee	17,628	74	0	5,252	14,256	9,955	8,115	55,279
Texas	118,968	391	0	15,215	38,987	37,332	20,822	231,715
Utah	7,291	48	0	799	7,303	2,190	4,880	22,510
Vermont	5,802	0	10,793	1,283	6,184	2,421	5,081	31,565
Virgin Islands	13,998	0	0	3,872	3,782	0	0	21,653
Virginia	2,503	151	0	1,764	5,608	63,058	6,080	79,165
Washington	28,001	23	0	9,274	14,639	28,959	8,584	89,480
West Virginia	20,032	36	25,847	570	1,780	16,480	3,684	68,429
Wisconsin	25,493	1,338	0	7,926	41,677	316	26,702	103,452
Wyoming	15,828	84	15,406	2,899	7,855	7,567	5,888	55,526
Total	$1,136,639	$11,591	$273,426	$274,823	$727,044	$641,746	$422,305	$3,487,572

Note: The reason some values are negative is that support amounts include prior period adjustments.

Source: The data are derived from individual company payments reported on the USAC web site.

Table 19.5
High-Cost Support Received by ILECs and CETCs
(In Millions of Dollars)

	ILECs	CETCs	Total	Percent CETCs
1996	$1,188	$0	$1,188	0.0 %
1997	1,263	0	1,263	0.0
1998	1,690	0	1,690	0.0
1999	1,717	1	1,718	0.0
2000	2,233	1	2,235	0.1
2001	2,575	17	2,592	0.7
2002	2,889	46	2,935	1.6
2003	3,142	131	3,273	4.0
2004	3,155	333	3,488	9.5

Notes: ILECs is an abbreviation for incumbent local exchange carriers. CETCs is an abbreviation for competitive eligible telecommunications carriers. CETCs include both wireless and wireline carriers.

Source: National Exchange Carrier Association (1996-1997).
Universal Service Administrative Company (1998-2004).

Chart 19.4
Percent of High-Cost Support Received by CETCs

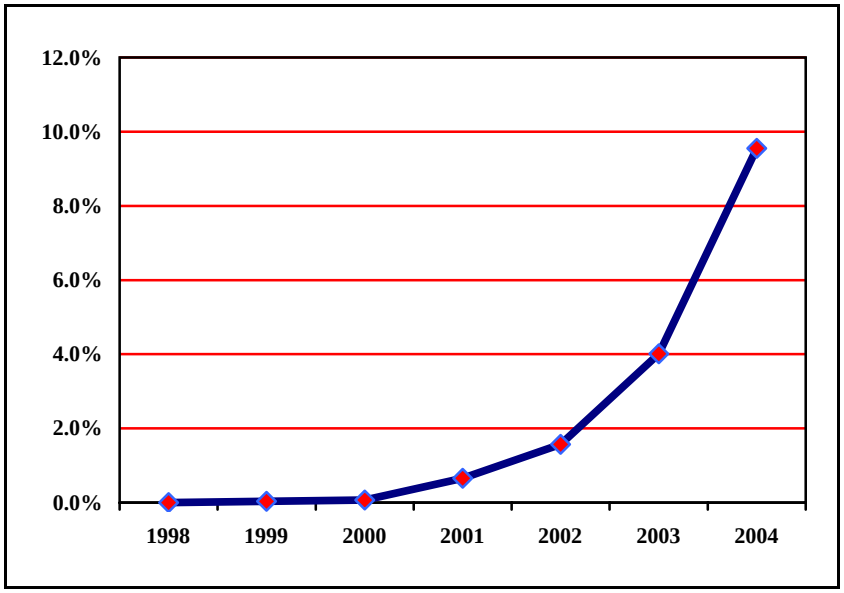


Table 19.6
High-Cost Support by Type of Carriers: 2004
(In Thousands of Dollars)

	ILECs [1]	CETCs [2]	Percent CETCs [2]	Rural Carriers	Non-Rural Carriers	Percent Non-Rural Carriers	Total
Alabama	$93,302	$6,225	6.3 %	$38,771	$60,755	61.0 %	$99,527
Alaska	91,903	3,675	3.8	92,274	3,304	3.5	95,578
American Samoa	1,959	0	0.0	1,959	0	0.0	1,959
Arizona	64,588	13,732	17.5	62,934	15,386	19.6	78,320
Arkansas	105,983	30,232	22.2	111,066	25,149	18.5	136,215
California	95,321	53	0.1	66,694	28,680	30.1	95,373
Colorado	76,031	8,444	10.0	61,577	22,898	27.1	84,475
Connecticut	2,211	0	0.0	1,402	810	36.6	2,211
Delaware	266	0	0.0	0	266	100.0	266
District of Columbia	0		NA	0	0	NA	0
Florida	82,732	1,969	2.3	44,465	40,235	47.5	84,700
Georgia	109,461	1,677	1.5	95,532	15,606	14.0	111,137
Guam	5,085	2,143	29.6	7,229	0	0.0	7,229
Hawaii	12,657	272	2.1	10,491	2,437	18.8	12,928
Idaho	54,001	0	0.0	54,001	0	0.0	54,001
Illinois	52,604	0	0.0	41,934	10,669	20.3	52,604
Indiana	54,644	155	0.3	33,248	21,552	39.3	54,799
Iowa	54,843	26,999	33.0	69,542	12,300	15.0	81,842
Kansas	119,978	7,871	6.2	123,216	4,632	3.6	127,849
Kentucky	70,754	274	0.4	38,571	32,456	45.7	71,028
Louisiana	89,434	15,098	14.4	90,878	13,654	13.1	104,532
Maine	28,856	2,182	7.0	27,999	3,038	9.8	31,037
Maryland	2,854	0	0.0	1,680	1,174	41.1	2,854
Massachusetts	2,253	0	0.0	1,156	1,097	48.7	2,253
Michigan	43,232	6,551	13.2	47,835	1,949	3.9	49,783
Minnesota	75,388	20,078	21.0	88,306	7,160	7.5	95,466
Mississippi	145,721	41,240	22.1	32,236	154,725	82.8	186,961
Missouri	89,939	166	0.2	78,766	11,339	12.6	90,105
Montana	73,896	1,193	1.6	56,475	18,614	24.8	75,089
Nebraska	46,977	63	0.1	39,651	7,388	15.7	47,039
Nevada	24,395	3,658	13.0	20,626	7,426	26.5	28,053
New Hampshire	11,831	0	0.0	9,833	1,998	16.9	11,831
New Jersey	1,155	0	0.0	1,155	0	0.0	1,155
New Mexico	47,332	3,646	7.2	45,238	5,740	11.3	50,978
New York	51,085	222	0.4	42,905	8,402	16.4	51,306
North Carolina	77,836	1,152	1.5	49,514	29,474	37.3	78,988
North Dakota	39,269	15,528	28.3	48,194	6,602	12.0	54,797
Northern Mariana Islands	793	88	10.0	881	0	0.0	881
Ohio	38,047	0	0.0	29,863	8,184	21.5	38,047
Oklahoma	101,306	684	0.7	97,375	4,614	4.5	101,990
Oregon	67,103	4,395	6.1	54,508	16,991	23.8	71,498
Pennsylvania	54,277	456	0.8	50,913	3,819	7.0	54,732
Puerto Rico	79,610	35,120	30.6	0	114,730	100.0	114,730
Rhode Island	56	0	0.0	0	56	100.0	56
South Carolina	76,058	0	0.0	64,803	11,255	14.8	76,058
South Dakota	43,509	13,026	23.0	50,484	6,051	10.7	56,535
Tennessee	54,942	338	0.6	47,928	7,351	13.3	55,279
Texas	230,189	1,526	0.7	188,655	43,060	18.6	231,715
Utah	22,510	0	0.0	21,400	1,111	4.9	22,510
Vermont	28,816	2,749	8.7	18,351	13,214	41.9	31,565
Virgin Islands	21,653	0	0.0	21,653	0	0.0	21,653
Virginia	76,267	2,898	3.7	26,903	52,263	66.0	79,165
Washington	68,470	21,010	23.5	59,113	30,366	33.9	89,480
West Virginia	64,008	4,421	6.5	35,497	32,932	48.1	68,429
Wisconsin	86,016	17,437	16.9	96,080	7,372	7.1	103,452
Wyoming	41,106	14,420	26.0	31,111	24,415	44.0	55,526
Total	$3,154,510	$333,062	9.5 %	$2,532,869	$954,703	27.4 %	$3,487,572

NA - Not Applicable

[1] ILECs is an abbreviation for incumbent local exchange carriers.

[2] CETCs is an abbreviation for competitive eligible telecommunications carriers. CETCs include both wireline and wireless carriers.

Source: Universal Service Administrative Company.

Table 19.7
Lifeline Monthly Support by State or Jurisdiction
(As of March 2004)

State or Jurisdiction	Basic Federal Support [1]			Additional State Support			Federal Match			Total Federal Support			Total Federal and State Support		
	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.
Alabama	$8.25	$8.25	$8.25	$1.50	$3.50	$3.48	$0.75	$1.75	$1.74	$9.00	$10.00	$9.99	$10.50	$13.50	$13.47
Alaska	7.75	8.25	8.23	3.50	3.50	3.50	1.75	1.75	1.75	9.50	10.00	9.98	13.00	13.50	13.48
American Samoa	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arizona	8.22	8.25	8.23	0.00	3.50	2.77	0.00	1.75	1.39	8.22	10.00	9.62	8.22	13.50	12.39
Arkansas	7.02	8.25	7.46	0.00	3.50	0.95	0.00	1.75	0.47	7.02	10.00	7.93	7.02	13.50	8.88
California	3.95	8.25	6.69	2.18	3.50	2.48	1.09	1.75	1.24	5.04	10.00	7.92	7.22	13.50	10.40
Colorado	8.25	8.25	8.25	0.00	3.50	3.49	0.00	1.75	1.75	8.25	10.00	10.00	8.25	13.50	13.49
Connecticut	6.10	7.53	7.53	1.18	1.18	1.18	0.59	0.59	0.59	6.69	8.12	8.12	7.87	9.30	9.30
Delaware	8.23	8.23	8.23	2.30	2.30	2.30	1.15	1.15	1.15	9.38	9.38	9.38	11.68	11.68	11.68
District of Columbia	5.62	5.62	5.62	3.50	3.50	3.50	1.75	1.75	1.75	7.37	7.37	7.37	10.87	10.87	10.87
Florida	8.25	8.25	8.25	3.04	3.50	3.50	1.52	1.75	1.75	9.77	10.00	10.00	12.81	13.50	13.49
Georgia	6.50	8.25	8.25	0.00	3.50	3.40	0.00	1.75	1.70	6.50	10.00	9.95	6.50	13.50	13.35
Guam	8.25	8.25	8.25	3.50	3.50	3.50	1.75	1.75	1.75	10.00	10.00	10.00	13.50	13.50	13.50
Hawaii	8.25	8.25	8.25	0.00	0.00	0.00	0.00	0.00	0.00	8.25	8.25	8.25	8.25	8.25	8.25
Idaho	6.50	8.25	8.25	0.00	3.50	3.50	0.00	1.75	1.75	6.50	10.00	10.00	6.50	13.50	13.49
Illinois	6.25	8.25	6.92	0.00	1.20	0.18	0.00	0.60	0.09	6.25	8.85	7.01	6.25	10.05	7.18
Indiana	7.28	8.25	7.52	0.00	0.00	0.00	0.00	0.00	0.00	7.28	8.25	7.52	7.28	8.25	7.52
Iowa	5.25	8.25	7.29	0.00	3.50	0.03	0.00	1.75	0.02	5.25	10.00	7.31	5.25	13.50	7.34
Kansas	5.25	8.25	7.25	3.28	3.50	3.50	1.64	1.75	1.75	6.89	10.00	9.00	10.17	13.50	12.50
Kentucky	7.09	8.25	8.11	0.00	3.50	2.44	0.00	1.75	1.22	7.09	10.00	9.33	7.09	13.50	11.77
Louisiana	8.25	8.25	8.25	0.00	0.00	0.00	0.00	0.00	0.00	8.25	8.25	8.25	8.25	8.25	8.25
Maine	8.20	8.25	8.21	3.48	3.50	3.50	1.74	1.75	1.75	9.94	10.00	9.96	13.42	13.50	13.46
Maryland	7.52	8.25	7.52	0.84	3.50	3.50	0.42	1.75	1.75	7.94	10.00	9.27	8.78	13.50	12.77
Massachusetts	8.20	8.25	8.20	6.00	8.45	8.45	1.75	1.75	1.75	9.95	10.00	9.95	15.95	18.45	18.40
Michigan	7.10	8.25	7.29	0.00	3.50	1.98	0.00	1.75	0.99	7.10	10.00	8.28	7.10	13.50	10.27
Minnesota	6.78	8.25	7.22	0.00	1.76	1.54	0.00	0.88	0.77	6.78	9.13	7.99	6.78	10.89	9.53
Mississippi	8.25	8.25	8.25	0.00	3.50	3.37	0.00	1.75	1.69	8.25	10.00	9.94	8.25	13.50	13.31
Missouri	6.75	8.25	7.34	0.00	3.50	0.84	0.00	1.75	0.42	6.75	10.00	7.76	6.75	13.50	8.61
Montana	8.24	8.25	8.24	0.00	3.50	3.00	0.00	1.75	1.50	8.24	10.00	9.75	8.24	13.50	12.75
Nebraska	6.51	8.25	7.01	0.00	3.50	3.48	0.00	1.75	1.74	6.51	10.00	8.75	6.51	13.50	12.22
Nevada	5.25	8.25	6.53	0.00	3.50	2.91	0.00	1.75	1.45	5.25	10.00	7.98	5.25	13.50	10.89
New Hampshire	8.20	8.25	8.20	0.00	0.00	0.00	0.00	0.00	0.00	8.20	8.25	8.20	8.20	8.25	8.20
New Jersey	7.38	8.06	8.05	0.00	3.46	3.43	0.00	1.73	1.71	7.38	9.79	9.77	7.38	13.25	13.20
New Mexico	7.91	8.25	8.24	0.00	3.50	3.29	0.00	1.75	1.65	7.91	10.00	9.89	7.91	13.50	13.18
New York	6.17	8.25	8.09	0.00	3.50	3.30	0.00	1.75	1.65	6.17	10.00	9.73	6.17	13.50	13.03
North Carolina	7.83	8.25	8.08	3.50	3.50	3.49	1.75	1.75	1.75	9.58	10.00	9.83	13.08	13.50	13.32
North Dakota	3.50	8.25	8.00	0.00	3.50	1.86	0.00	1.75	0.93	3.50	10.00	8.93	3.50	13.50	10.79
N. Marianna Islands	8.25	8.25	8.25	0.00	0.00	0.00	0.00	0.00	0.00	8.25	8.25	8.25	8.25	8.25	8.25
Ohio	7.09	8.25	7.40	0.00	3.50	2.87	0.00	1.75	1.43	7.09	10.00	8.83	7.09	13.50	11.70
Oklahoma	7.02	8.25	7.21	0.00	1.22	0.45	0.00	0.61	0.23	7.02	8.86	7.44	7.02	10.08	7.89
Oregon	7.75	8.25	8.25	3.50	3.50	3.50	1.75	1.75	1.75	9.50	10.00	10.00	13.00	13.50	13.50
Pennsylvania	5.94	8.25	7.85	0.00	2.50	1.03	0.00	1.25	0.51	5.94	9.50	8.37	5.94	12.00	9.39
Puerto Rico	8.25	8.25	8.25	3.34	3.50	3.35	1.67	1.75	1.67	9.92	10.00	9.92	13.26	13.50	13.27
Rhode Island	8.19	8.20	8.20	0.00	3.40	3.31	0.00	1.70	1.65	8.19	9.90	9.85	8.19	13.30	13.16
South Carolina	7.50	8.25	8.23	0.00	3.50	3.49	0.00	1.75	1.74	7.50	10.00	9.98	7.50	13.50	13.46
South Dakota	5.25	8.25	7.65	0.00	3.50	0.04	0.00	1.75	0.02	5.25	10.00	7.67	5.25	13.50	7.71
Tennessee	7.24	8.25	8.16	0.00	3.50	3.17	0.00	1.75	1.58	7.24	10.00	9.75	7.24	13.50	12.91
Texas	5.27	8.25	7.20	0.00	3.50	3.19	0.00	1.75	1.60	5.27	10.00	8.80	5.27	13.50	11.99
Utah	8.25	8.25	8.25	3.50	3.50	3.50	1.75	1.75	1.75	10.00	10.00	10.00	13.50	13.50	13.50
Vermont	8.20	8.25	8.21	3.50	3.50	3.50	1.75	1.75	1.75	9.95	10.00	9.96	13.45	13.50	13.46
Virginia	7.16	8.25	7.62	1.76	3.50	3.36	0.88	1.75	1.68	8.04	10.00	9.30	9.80	13.50	12.66
Washington	6.20	8.25	7.93	0.00	3.50	1.90	0.00	1.75	0.95	6.20	10.00	8.88	6.20	13.50	10.78
West Virginia	8.25	8.25	8.25	0.00	3.50	2.64	0.00	1.75	1.32	8.25	10.00	9.57	8.25	13.50	12.20
Wisconsin	6.82	8.25	7.24	0.00	3.50	1.23	0.00	1.75	0.61	6.82	10.00	7.85	6.82	13.50	9.08
Wyoming	8.25	8.25	8.25	3.50	3.50	3.50	1.75	1.75	1.75	10.00	10.00	10.00	13.50	13.50	13.50
Nationwide	$3.50	$8.25	$7.26	$0.00	$8.45	$2.67	$0.00	$1.75	$1.29	$3.50	$10.00	$8.55	$3.50	$18.45	$11.22

NA - Not Available.

Note: This table reflects only non-tribal support.

[1] Basic federal support includes both Tier 1 and Tier 2 support. See text for definitions.

Source: Universal Service Administrative Company

Table 19.8

Lifeline Subscribers and Link-Up Beneficiaries

Year	Lifeline			Link-Up		
	Non-Tribal	Tribal	Total	Non-Tribal	Tribal	Total
1987			1,063,443			7,953
1988			1,828,862			105,758
1989			2,115,288			206,656
1990			2,466,513			513,155
1991			2,984,290			639,645
1992			3,440,216			743,285
1993			3,971,937			737,362
1994			4,423,119			837,964
1995			4,914,056			823,679
1996			5,233,425			808,354
1997 [1]			5,110,537			NA
1998			5,380,726			2,195,417
1999			5,640,094			1,834,766
2000	5,871,619	18,692	5,890,311	1,689,867	2,038	1,691,905
2001	6,144,089	56,820	6,200,909	1,670,260	23,355	1,693,615
2002	6,518,367	112,191	6,630,558	1,656,768	29,901	1,686,669
2003	6,490,614	147,203	6,637,817	1,653,301	22,289	1,675,590
2004 [2]	6,788,309	175,863	6,964,172	1,655,275	40,396	1,695,671

NA - Not Available.

[1] Subscriber data were not actually collected in 1997. Lifeline subscribership data were estimated by USAC.

[2] The reported subscribers and beneficiaries represent USAC data as of February 2, 2005.

Source: Universal Service Administrative Company.

Table 19.9
Lifeline Subscribers and Link-Up Beneficiaries by State or Jurisdiction: 2003

	Lifeline			Link-Up		
	Non-Tribal	Tribal	Total	Non-Tribal	Tribal	Total
Alabama	24,348	0	24,348	992	0	992
Alaska	14,771	13,801	28,572	2,038	1,738	3,776
American Samoa	626	0	626	19	0	19
Arizona	60,428	37,101	97,529	2,010	10,194	12,204
Arkansas	16,913	0	16,913	5,354	0	5,354
California	2,994,575	298	2,994,873	1,089,784	0	1,089,784
Colorado	31,945	56	32,001	709	2	711
Connecticut	57,153	0	57,153	4,779	0	4,779
Delaware	2,960	0	2,960	1,276	0	1,276
District of Columbia	12,913	0	12,913	533	0	533
Florida	143,267	0	143,267	14,198	0	14,198
Georgia	67,599	0	67,599	5,363	0	5,363
Guam	3,169	0	3,169	1,240	0	1,240
Hawaii	10,485	0	10,485	1,966	0	1,966
Idaho	28,360	123	28,483	1,248	2	1,250
Illinois	94,712	0	94,712	39,453	0	39,453
Indiana	46,622	0	46,622	12,874	0	12,874
Iowa	43,684	2	43,686	3,459	0	3,459
Kansas	14,697	6	14,703	4,229	0	4,229
Kentucky	56,522	0	56,522	10,381	0	10,381
Louisiana	21,763	0	21,763	1,863	0	1,863
Maine	82,284	472	82,756	24,757	52	24,809
Maryland	4,230	0	4,230	1,011	0	1,011
Massachusetts	150,513	30	150,543	1,947	0	1,947
Michigan	112,738	216	112,954	12,528	21	12,549
Minnesota	48,654	386	49,040	1,249	104	1,353
Mississippi	24,066	0	24,066	1,296	0	1,296
Missouri	38,191	7	38,198	10,142	2	10,144
Montana	13,719	2,832	16,551	376	1,235	1,611
Nebraska	15,869	210	16,079	2,225	23	2,248
Nevada	42,441	147	42,588	7,146	5	7,151
New Hampshire	7,168	0	7,168	120	0	120
New Jersey	93,924	0	93,924	2,794	0	2,794
New Mexico	49,332	4,523	53,855	1,139	1,102	2,241
New York	458,850	37	458,887	42,010	0	42,010
North Carolina	111,068	1	111,069	4,973	0	4,973
North Dakota	19,050	3,514	22,564	1,636	1,153	2,789
Northern Mariana Islands	598	0	598	1,641	0	1,641
Ohio	278,621	0	278,621	42,399	0	42,399
Oklahoma	81,376	64,272	145,648	26,002	1,919	27,921
Oregon	40,418	212	40,630	9,105	41	9,146
Pennsylvania	124,589	0	124,589	55,706	0	55,706
Puerto Rico	87,953	0	87,953	9,653	0	9,653
Rhode Island	45,857	0	45,857	267	0	267
South Carolina	23,421	5	23,426	2,546	0	2,546
South Dakota	19,789	9,037	28,826	1,872	2,322	4,194
Tennessee	51,964	0	51,964	4,200	0	4,200
Texas	458,544	3,840	462,384	91,926	3	91,929
Utah	20,435	116	20,551	800	40	840
Vermont	27,993	0	27,993	1,661	0	1,661
Virgin Islands	0	0	0	0	0	0
Virginia	20,012	0	20,012	2,586	0	2,586
Washington	107,954	5,438	113,392	59,301	2,310	61,611
West Virginia	5,338	0	5,338	853	0	853
Wisconsin	74,005	190	74,195	23,591	1	23,592
Wyoming	2,138	331	2,469	75	20	95
Industry Totals	6,490,614	147,203	6,637,817	1,653,301	22,289	1,675,590

Note: Starting in October 2000, low-income subscribers are listed as either tribal or non-tribal due to implementation of th*Tribal Order*. The reported subscribers and beneficiaries represent USAC data for the time period January 2003 through Decembe 2003, which includes true-ups through March 2004.

Source: Universal Service Administrative Company

Table 19.9
Lifeline Subscribers and Link-Up Beneficiaries by State or Jurisdiction: 2004
Continued

	Lifeline			Link-Up		
	Non-Tribal	Tribal	Total	Non-Tribal	Tribal	Total
Alabama	25,883	1	25,884	830	0	830
Alaska	18,090	16,222	34,312	277	4,801	5,078
American Samoa	623	0	623	8	0	8
Arizona	69,122	43,072	112,194	6,257	6,747	13,004
Arkansas	20,442	0	20,442	3,212	0	3,212
California	2,973,863	390	2,974,253	1,001,119	1	1,001,120
Colorado	32,987	47	33,034	824	1	825
Connecticut	55,428	0	55,428	4,975	0	4,975
Delaware	2,807	0	2,807	518	0	518
District of Columbia	11,362	0	11,362	370	0	370
Florida	153,270	0	153,270	13,103	0	13,103
Georgia	67,908	0	67,908	5,818	0	5,818
Guam	3,426	0	3,426	1,093	0	1,093
Hawaii	7,653	0	7,653	739	0	739
Idaho	29,890	143	30,033	1,207	3	1,210
Illinois	100,261	0	100,261	46,175	0	46,175
Indiana	50,769	0	50,769	23,651	0	23,651
Iowa	49,346	2	49,348	2,769	0	2,769
Kansas	19,717	19	19,736	3,824	0	3,824
Kentucky	61,238	0	61,238	11,022	0	11,022
Louisiana	21,512	0	21,512	1,213	0	1,213
Maine	75,560	425	75,985	20,063	39	20,102
Maryland	4,338	0	4,338	724	0	724
Massachusetts	132,617	2	132,619	1,447	0	1,447
Michigan	110,021	228	110,249	22,990	31	23,021
Minnesota	54,223	507	54,730	2,175	89	2,264
Mississippi	26,065	0	26,065	1,227	0	1,227
Missouri	42,608	6	42,614	10,833	0	10,833
Montana	14,179	3,314	17,493	698	1,102	1,800
Nebraska	19,173	232	19,405	2,322	18	2,340
Nevada	48,146	176	48,322	7,980	4	7,984
New Hampshire	6,778	0	6,778	89	0	89
New Jersey	118,299	0	118,299	3,821	0	3,821
New Mexico	52,162	6,355	58,517	2,062	1,951	4,013
New York	452,618	26	452,644	33,128	0	33,128
North Carolina	120,357	4	120,361	5,091	0	5,091
North Dakota	19,943	4,490	24,433	1,686	1,534	3,220
Northern Mariana Islands	700	0	700	1,883	0	1,883
Ohio	304,840	0	304,840	51,786	0	51,786
Oklahoma	100,415	80,430	180,845	30,126	18,692	48,818
Oregon	46,379	269	46,648	17,537	69	17,606
Pennsylvania	145,558	0	145,558	44,345	0	44,345
Puerto Rico	97,040	0	97,040	11,811	0	11,811
Rhode Island	42,116	0	42,116	188	0	188
South Carolina	24,290	5	24,295	2,729	0	2,729
South Dakota	20,314	9,677	29,991	1,754	2,317	4,071
Tennessee	53,792	0	53,792	3,929	0	3,929
Texas	597,193	3,248	600,441	124,868	1	124,869
Utah	21,001	151	21,152	971	34	1,005
Vermont	25,385	0	25,385	1,355	0	1,355
Virgin Islands	0	0	0	0	0	0
Virginia	20,231	0	20,231	2,221	0	2,221
Washington	125,580	5,865	131,445	77,284	2,875	80,159
West Virginia	5,502	0	5,502	797	0	797
Wisconsin	81,089	182	81,271	31,814	4	31,818
Wyoming	4,200	375	4,575	4,537	83	4,620
Industry Totals	6,788,309	175,863	6,964,172	1,655,275	40,396	1,695,671

Note: Starting in October 2000, low-income subscribers are listed as either tribal or non-tribal due to implementation of the *Tribal Order*. The reported subscribers and beneficiaries represent USAC data for the time period January 2004 through December 2004, as of February 2, 2005.

Source: Universal Service Administrative Company.

Table 19.10
Low-Income Support Payments

Year	Lifeline					Link-Up			Total
	Non-Tribal	Tribal	TLS [2]	PICCs [3]	Total	Non-Tribal	Tribal	Total	
1988	$31,952,241	$0	$0	$0	$31,952,241	$1,991,148	$0	$1,991,148	$33,943,389
1989	50,878,248	0	0	0	50,878,248	4,479,614	0	4,479,614	55,357,862
1990	62,464,007	0	0	0	62,464,007	11,351,005	0	11,351,005	73,815,012
1991	79,103,725	0	0	0	79,103,725	13,705,470	0	13,705,470	92,809,195
1992	93,766,122	0	0	0	93,766,122	15,342,180	0	15,342,180	109,108,302
1993	109,082,866	0	0	0	109,082,866	17,019,329	0	17,019,329	126,102,195
1994	123,283,835	0	0	0	123,283,835	18,573,322	0	18,573,322	141,857,157
1995	137,277,472	0	0	0	137,277,472	18,392,061	0	18,392,061	155,669,533
1996	148,186,383	0	0	0	148,186,383	18,246,756	0	18,246,756	166,433,139
1997	147,579,351	0	0	0	147,579,351	13,710,810	0	13,710,810	161,290,161
1998 [1]	416,504,314	0	2,700,199	2,801,645	422,006,158	42,463,332	0	42,463,332	464,469,490
1999	438,575,890	0	3,136,015	4,450,093	446,161,998	33,991,297	0	33,991,297	480,153,295
2000	482,045,184	507,783	2,853,787	3,167,769	488,574,523	30,371,085	61,589	30,432,674	519,007,197
2001	548,421,200	6,960,051	3,234,494	0	558,615,745	30,318,199	533,555	30,851,754	589,467,499
2002	623,407,923	17,954,808	3,872,836	0	645,235,567	30,328,612	832,659	31,161,271	676,396,838
2003	656,664,863	24,083,818	4,632,075	0	685,380,756	30,211,894	615,351	30,827,245	716,208,001
2004	693,204,343	28,262,984	5,206,518	0	726,673,845	31,022,564	1,132,531	32,155,095	758,828,940

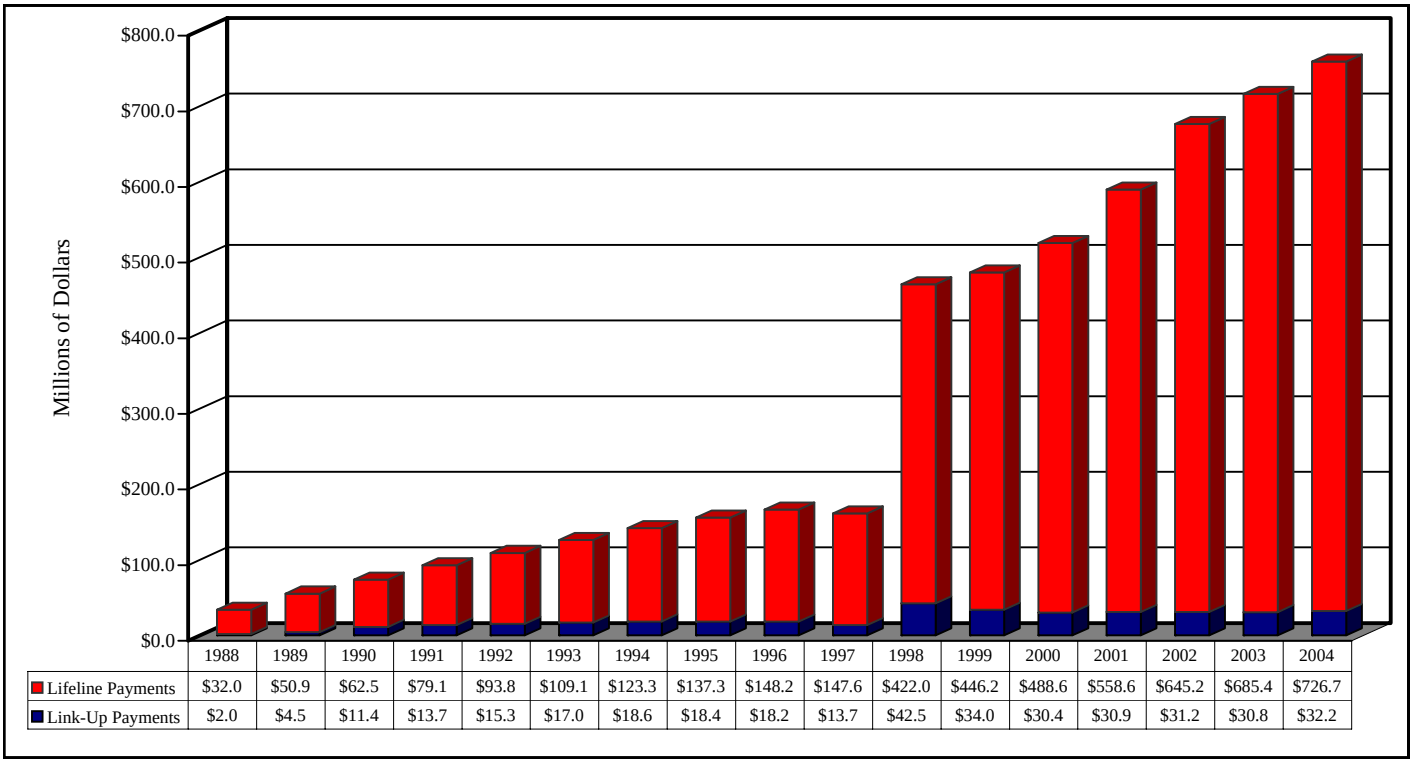
[1] Effective in 1998, the federal Lifeline support mechanism was expanded so that a basic level of assistance would be provided in all states. Additional federal support is also provided wherever a state chooses to provide matching assistance. Prior to the expansion, states were required to match all federal support with their own state support, and if the state provided no support, then no federal support was available in that state. The basic level of federal support was also increased in 1998.

[2] TLS is an abbreviation for toll limitation service.

[3] Carriers no longer charge residential Presubscribed Interexchange Access Charge (PICCs) as of July 1, 2000.

Source: Universal Service Administrative Company.

Chart 19.5
Lifeline and Link-Up Support Payments



	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Lifeline Payments	$32.0	$50.9	$62.5	$79.1	$93.8	$109.1	$123.3	$137.3	$148.2	$147.6	$422.0	$446.2	$488.6	$558.6	$645.2	$685.4	$726.7
Link-Up Payments	$2.0	$4.5	$11.4	$13.7	$15.3	$17.0	$18.6	$18.4	$18.2	$13.7	$42.5	$34.0	$30.4	$30.9	$31.2	$30.8	$32.2

Table 19.11
Low-Income Support Payments by State or Jurisdiction: 2004
(In Thousands of Dollars)

	Lifeline				Link-Up			Total
	Non-Tribal	Tribal	TLS	Total	Non-Tribal	Tribal	Total	
Alabama	$3,077	$0	$12	$3,088	$24	$0	$24	$3,112
Alaska	2,285	1,452	53	3,791	14	103	117	3,908
American Samoa	64	0	0	64	1	0	1	64
Arizona	8,064	11,275	81	19,420	142	140	282	19,702
Arkansas	1,922	0	17	1,939	65	0	65	2,004
California	281,769	22	2,818	284,609	17,114	0	17,114	301,723
Colorado	3,973	6	19	3,998	16	0	16	4,014
Connecticut	5,374	0	4	5,378	150	0	150	5,529
Delaware	257	0	0	257	9	0	9	265
District of Columbia	1,037	0	0	1,037	5	0	5	1,042
Florida	18,017	0	46	18,063	321	0	321	18,384
Georgia	7,991	0	95	8,086	147	0	147	8,233
Guam	411	0	6	418	19	0	19	437
Hawaii	751	0	1	752	18	0	18	769
Idaho	3,584	21	20	3,625	18	0	18	3,643
Illinois	8,144	0	8	8,153	1,019	0	1,019	9,172
Indiana	4,584	0	2	4,586	576	0	576	5,161
Iowa	4,304	0	31	4,335	53	0	53	4,388
Kansas	2,124	1	27	2,152	82	0	82	2,234
Kentucky	6,790	0	131	6,921	244	0	244	7,166
Louisiana	2,075	0	3	2,078	25	0	25	2,104
Maine	8,965	27	24	9,016	450	1	451	9,466
Maryland	508	0	0	508	22	0	22	530
Massachusetts	15,763	0	1	15,764	8	0	8	15,771
Michigan	10,952	42	6	11,000	474	0	475	11,474
Minnesota	5,201	42	12	5,255	28	2	30	5,286
Mississippi	3,050	0	4	3,055	27	0	27	3,082
Missouri	3,951	0	94	4,045	198	0	198	4,243
Montana	1,670	464	24	2,159	8	17	26	2,184
Nebraska	2,065	22	28	2,114	34	1	35	2,149
Nevada	4,552	11	18	4,581	147	0	147	4,728
New Hampshire	665	0	0	665	2	0	2	667
New Jersey	14,172	0	3	14,175	105	0	105	14,279
New Mexico	6,250	1,257	64	7,570	31	33	64	7,635
New York	50,586	2	13	50,602	926	0	926	51,528
North Carolina	14,088	0	47	14,135	111	0	111	14,246
North Dakota	2,388	672	13	3,072	60	66	126	3,199
Northern Mariana Islands	71	0	0	71	11	0	11	82
Ohio	32,170	0	67	32,237	921	0	921	33,158
Oklahoma	9,886	9,901	117	19,904	676	554	1,230	21,134
Oregon	5,523	31	173	5,727	298	6	303	6,031
Pennsylvania	12,392	0	0	12,392	905	0	905	13,297
Puerto Rico	11,501	0	0	11,501	260	0	260	11,761
Rhode Island	4,979	0	1	4,980	3	0	3	4,983
South Carolina	2,849	1	21	2,871	50	0	50	2,921
South Dakota	2,298	1,629	32	3,958	57	97	155	4,113
Tennessee	6,153	0	16	6,168	74	0	74	6,242
Texas	64,135	38	170	64,343	2,424	0	2,424	66,767
Utah	2,401	13	20	2,433	13	1	13	2,447
Vermont	3,006	0	4	3,010	19	0	19	3,029
Virgin Islands	0	0	0	0	0	0	0	0
Virginia	2,225	0	2	2,227	50	0	50	2,276
Washington	13,723	1,225	808	15,756	1,496	105	1,601	17,357
West Virginia	599	0	2	602	16	0	16	617
Wisconsin	7,409	20	3	7,432	952	0	952	8,384
Wyoming	462	89	47	598	107	7	113	711
Industry Totals	$693,204	$28,263	$5,207	$726,674	$31,023	$1,133	$32,155	$758,829

Note: These dollars represent submitted claims to USAC for the time period January 2004 through December 2004, as of January 31, 2005.

Source: Universal Service Administrative Company.

Table 19.12
Schools and Libraries Funding by Type of Service
(Funds Committed and Disbursed Through December 31, 2004) [1]

Funding Period	Internal Connections		Internet Access		Telecommunications		Totals	
	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed
Jan-98 to Jun-99	$904,372,001	$797,976,374	$134,172,770	$94,919,281	$675,992,207	$507,829,155	$1,714,536,978	$1,400,724,809
Jul-99 to Jun-00	1,365,214,959	1,112,010,440	149,290,730	95,833,558	634,085,484	453,950,078	2,148,591,173	1,661,794,077
Jul-00 to Jun-01	1,138,337,457	1,035,250,257	219,164,685	134,772,216	718,168,894	474,434,256	2,075,671,036	1,644,456,729
Jul-01 to Jun-02	1,214,830,493	990,121,702	225,431,082	148,699,944	761,325,692	518,578,486	2,201,587,267	1,657,400,132
Jul-02 to Jun-03	1,082,237,225	700,664,339	230,204,915	157,368,042	855,766,723	587,265,757	2,168,208,863	1,445,298,138
Jul-03 to Jun-04	1,465,362,860	483,418,693	242,523,317	167,482,521	860,399,038	520,679,537	2,568,285,215	1,171,580,751
Jul-04 to Jun-05	304,439,500	3,614,307	162,997,977	19,717,803	608,799,775	33,036,070	1,076,237,253	56,368,181

[1] Because of the appeals process, funding commitments and disbursements can be made after the program years' end.

Source: USAC data. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau, FCC.

Chart 19.6
Total Schools and Libraries Funds Committed and Disbursed

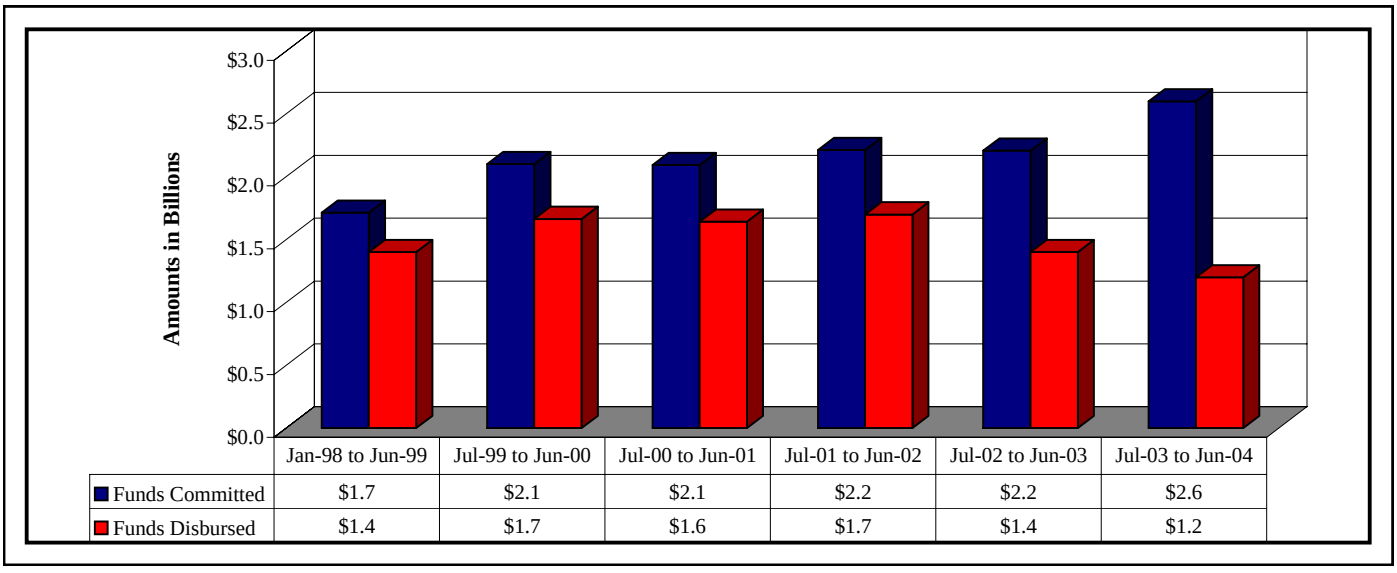


Table 19.13
Schools and Libraries Funding by State and by Type of Service
(Funding Period: July 1, 2003 Through June 30, 2004
Activity Through December 31, 2004) [1]

State/Territory	Internal Connections		Internet Access		Telecom. and Dedicated		Totals	
	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed
Alabama	$14,095,225	$7,402,861	$10,342,225	$8,735,713	$12,097,561	$7,496,033	$36,535,011	$23,634,606
Alaska	913,437	681,681	6,201,298	5,959,697	7,349,531	6,330,338	14,464,265	12,971,716
American Samoa	0	0	0	0	2,208,660	1,792,101	2,208,660	1,792,101
Arizona	52,285,049	18,819,871	7,516,007	5,374,591	12,124,563	6,777,560	71,925,619	30,972,023
Arkansas	8,385,466	1,858,303	782,387	334,902	17,993,599	8,017,223	27,161,452	10,210,428
California	232,693,336	76,124,584	18,922,650	11,123,799	106,837,267	48,609,992	358,453,253	135,858,375
Colorado	5,244,407	2,021,893	1,615,311	974,880	9,034,897	6,177,764	15,894,615	9,174,537
Connecticut	10,216,788	640,175	3,114,406	2,438,226	10,871,666	6,063,245	24,202,860	9,141,645
Delaware	11,928	5,187	663,623	20,280	765,026	657,329	1,440,577	682,796
District of Columbia	11,811,213	145,904	500,926	48,696	1,716,978	356,310	14,029,117	550,910
Florida	14,727,264	6,539,712	4,179,432	2,321,915	29,135,970	23,430,081	48,042,665	32,291,709
Georgia	35,881,034	21,120,005	10,910,554	9,977,804	30,173,595	24,076,686	76,965,183	55,174,495
Guam	2,972,148	2,339,611	396,498	236,880	1,184,122	658,803	4,552,769	3,235,294
Hawaii	997,281	204,738	433,012	391,268	2,544,399	1,279,726	3,974,693	1,875,733
Idaho	1,501,034	359,508	1,007,786	857,501	2,260,946	1,508,865	4,769,766	2,725,875
Illinois	30,420,087	11,863,963	4,255,201	1,393,563	37,377,525	21,467,116	72,052,813	34,724,642
Indiana	3,644,342	743,231	9,442,950	4,592,469	12,411,083	8,448,785	25,498,375	13,784,485
Iowa	528,395	383,367	1,859,595	1,429,247	8,590,994	6,746,901	10,978,983	8,559,516
Kansas	2,525,685	763,393	5,028,835	2,504,391	7,692,224	5,968,027	15,246,744	9,235,810
Kentucky	19,390,929	3,461,349	2,189,552	1,115,327	13,125,450	8,752,557	34,705,931	13,329,233
Louisiana	31,294,825	11,376,400	5,641,835	3,930,360	16,796,812	13,840,277	53,733,472	29,147,038
Maine	895,548	325,652	1,137,165	132,201	6,151,888	3,891,208	8,184,600	4,349,062
Maryland	1,220,642	829,357	1,682,938	1,241,813	12,672,461	6,359,244	15,576,041	8,430,414
Massachusetts	7,269,827	3,145,440	5,008,166	3,273,535	9,659,394	6,134,500	21,937,386	12,553,475
Michigan	15,319,793	3,116,194	7,544,356	5,507,672	21,798,589	13,237,327	44,662,738	21,861,193
Minnesota	7,820,300	3,049,223	4,447,268	2,792,748	14,110,350	9,699,903	26,377,918	15,541,875
Mississippi	17,741,136	9,306,166	1,412,464	1,098,209	18,053,452	12,808,855	37,207,052	23,213,230
Missouri	21,322,675	6,884,352	1,612,015	1,222,242	13,091,759	8,330,930	36,026,449	16,437,524
Montana	397,846	318,095	947,038	610,796	2,590,085	1,666,643	3,934,969	2,595,534
Nebraska	267,353	42,941	1,057,133	810,415	6,379,529	5,372,617	7,704,016	6,225,973
Nevada	252,772	0	511,961	389,741	4,098,021	3,743,380	4,862,754	4,133,121
New Hampshire	446,592	255,551	567,477	359,290	1,314,878	822,591	2,328,947	1,437,432
New Jersey	26,764,657	8,337,426	4,642,579	2,732,401	23,946,860	15,317,994	55,354,096	26,387,821
New Mexico	44,376,498	13,731,562	2,729,023	1,776,886	7,727,066	3,703,501	54,832,586	19,211,948
New York	320,803,889	78,613,465	16,854,039	7,966,283	92,776,382	36,842,601	430,434,309	123,422,349
North Carolina	13,232,265	6,932,662	15,378,886	13,943,264	18,307,818	12,164,207	46,918,969	33,040,132
North Dakota	288,580	123,352	280,286	270,047	3,135,245	2,666,967	3,704,110	3,060,367
Northern Mariana Islands	548,457	189,795	364,374	360,238	329,534	177,302	1,242,365	727,335
Ohio	22,563,880	2,826,884	14,961,551	11,885,345	35,173,535	15,274,087	72,698,967	29,986,316
Oklahoma	32,546,556	17,379,180	7,093,965	5,473,931	13,580,221	9,594,263	53,220,742	32,447,373
Oregon	2,411,373	1,119,702	4,395,165	3,238,603	9,269,889	5,849,559	16,076,426	10,207,864
Pennsylvania	45,564,627	28,794,546	10,088,380	7,465,810	34,879,186	26,185,892	90,532,192	62,446,248
Puerto Rico	2,849,545	45,345	1,903,650	1,087,641	522,545	226,282	5,275,739	1,359,268
Rhode Island	4,580,328	1,616,631	1,352,757	459,378	3,876,560	3,184,695	9,809,645	5,260,704
South Carolina	37,622,164	9,469,449	1,102,988	559,023	15,617,145	11,246,750	54,342,297	21,275,222
South Dakota	616,289	125,508	338,683	109,132	3,625,996	2,817,532	4,580,968	3,052,172
Tennessee	8,934,201	3,751,594	6,690,583	6,380,156	12,405,271	9,595,735	28,030,055	19,727,485
Texas	325,398,844	105,193,527	18,472,390	11,676,539	65,391,579	43,470,179	409,262,813	160,340,245
Utah	1,452,478	395,322	1,068,650	782,717	10,775,651	5,703,684	13,296,778	6,881,723
Vermont	6,555	5,086	623,964	419,444	1,074,782	608,839	1,705,302	1,033,369
Virgin Islands	2,842,638	1,103,412	2,043,099	2,015,920	708,963	31,688	5,594,700	3,151,020
Virginia	5,496,423	2,871,397	5,498,957	4,093,327	20,502,298	16,922,632	31,497,678	23,887,356
Washington	6,855,259	4,570,974	1,838,143	765,402	12,969,962	7,588,986	21,663,365	12,925,362
West Virginia	3,930,853	442,121	212,316	188,529	6,059,900	4,177,459	10,203,068	4,808,110
Wisconsin	2,612,993	1,108,459	3,560,354	2,585,236	14,646,988	6,264,782	20,820,336	9,958,476
Wyoming	569,148	542,589	96,474	47,097	882,391	541,002	1,548,014	1,130,688
Totals	$1,465,362,860	$483,418,693	$242,523,317	$167,482,521	$860,399,038	$520,679,537	$2,568,285,215	$1,171,580,751

[1] Because of the appeals process, funding commitments have been made after the program year ended on June 30, 2004.

Source: USAC data. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau, FCC.

Table 19.14
Rural Health Care Fund Disbursements by Service Speed
(Activity Through December 31, 2004) [1] [2]

Funding Period	Voice Grade [3] 56 kbps to 199 kbps	Broadband [3] 200 kbps to 1.49 Mbps	Broadband [3] 1.5 Mbps and Faster	Other Service or Speed Unknown [3]	Total
Jan-98 to Jun-99	$202,778	$880,375	$2,292,252	$0	$3,375,405
Jul-99 to Jun-00	452,992	1,040,529	2,719,619	91,419	4,304,559
Jul-00 to Jun-01	613,595	2,927,805	6,685,573	87,198	10,314,172
Jul-01 to Jun-02	319,539	8,110,537	10,125,267	0	18,555,343
Jul-02 to Jun-03	423,522	10,604,290	10,154,151	0	21,181,963
Jul-03 to Jun-04	331,115	7,084,159	7,763,672	2,200	15,181,147

[1] For Funding period July 2004 - June 2005, $55,899 have been disbursed with all money going to broadband ($5,987 for 200 kbps to 2.49 Mbps and $49,912 for 1.5 Mbps and faster).

[2] Because of the appeals process, funding commitments and disbursements can be made after the program year's end.

[3] USAC data contain a short description of the services the health care providers receive. These service descriptions are rolled up into the categories above. Some inferences were made when service speed was not clearly indicated. For example, frame relay was assumed to be broadband in the range of 200 kbps to 1.5 Mbps, even though some frame relay service speeds may be faster.

Source: USAC data. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau, FCC.

Chart 19.7
Rural Health Care Fund Disbursements by Service Speed

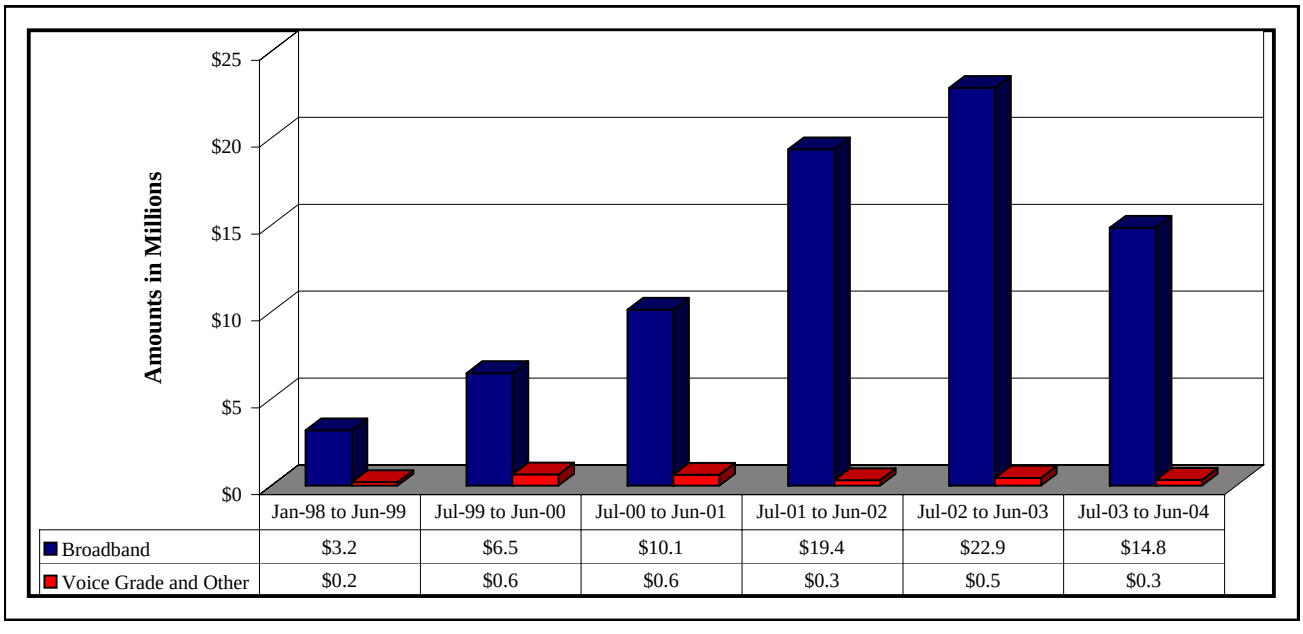


Table 19.15
Rural Health Care Fund Disbursements by Service Speed and by State
(Funding Period: July 1, 2003 Through June 30, 2004
Activity Through December 31, 2004) [1]

State	Voice Grade [2]	Broadband [2]		Other Service or Speed Unknown [2]	Total
	56 kbps to 199 kbps	200 kbps to 1.49 Mbps	1.5 Mbps and Faster		
Alabama	$0	$0	$26,591	$0	$26,591
Alaska	22,766	6,118,304	3,149,936	0	9,291,005
American Samoa	0	0	0	0	0
Arizona	0	408	227,524	0	227,932
Arkansas	0	653	20,115	0	20,768
California	163,926	7,334	44,936	0	216,196
Colorado	15,114	0	84,921	0	100,035
Connecticut	0	0	0	0	0
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	0	2,244	94,282	0	96,526
Georgia	0	0	62,373	0	62,373
Guam	0	0	0	0	0
Hawaii	0	0	196,345	0	196,345
Idaho	0	39,609	15,123	0	54,732
Illinois	0	16,056	41,801	0	57,857
Indiana	0	0	18,976	0	18,976
Iowa	0	23,545	103,896	0	127,441
Kansas	2,496	166,281	92,136	0	260,914
Kentucky	0	210,932	140,184	0	351,116
Louisiana	0	0	1,198	0	1,198
Maine	0	1,580	0	0	1,580
Maryland	0	0	0	0	0
Massachusetts	0	0	0	0	0
Michigan	2,556	8,528	221,628	0	232,712
Minnesota	2,849	104,464	490,176	0	597,488
Mississippi	0	3,989	93,493	0	97,482
Missouri	0	2,279	49,581	0	51,860
Montana	0	8,428	428,507	0	436,935
Nebraska	0	53,457	503,473	0	556,931
Nevada	0	0	21,397	0	21,397
New Hampshire	0	0	0	0	0
New Jersey	0	0	0	0	0
New Mexico	0	27,349	17,227	0	44,577
New York	1,975	0	11,676	0	13,651
North Carolina	0	876	11,699	0	12,575
North Dakota	6,870	24,282	338,141	0	369,293
Northern Mariana Islands	0	0	0	0	0
Ohio	179	1,332	11,404	0	12,915
Oklahoma	0	10,220	12,494	0	22,714
Oregon	0	0	0	0	0
Pennsylvania	1,686	35	4,215	0	5,935
Puerto Rico	0	0	0	0	0
Rhode Island	0	0	0	0	0
South Carolina	4,320	0	0	0	4,320
South Dakota	3,267	976	277,606	0	281,848
Tennessee	5,547	0	1,731	0	7,278
Texas	2,560	0	0	0	2,560
Utah	0	115,225	346,139	0	461,365
Vermont	0	0	0	0	0
Virgin Islands	0	0	113,637	0	113,637
Virginia	0	241	1,305	0	1,546
Washington	0	0	30,327	0	30,327
West Virginia	0	11,152	4,604	0	15,755
Wisconsin	95,006	76,111	394,304	2,200	567,621
Wyoming	0	48,269	58,572	0	106,841
Totals	$331,115	$7,084,159	$7,763,672	$2,200	$15,181,147

[1] Because of the appeals process, funding commitments have been made after the program year ended on June 30, 2004.

[2] USAC data contain a short description of the services the health care providers receive. These service descriptions are rolled up into the categories above. Some inferences were made when service speed was not clearly indicated. For example, frame relay was assumed to be broadband in the range of 200 kbps to 1.5 Mbps, even though some frame relay service speeds may be faster.

Source: USAC data. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau, FCC

Table 19.16
Universal Service Fund Contribution Factors

Year	Quarter	Factors for Interstate End-User Revenues	Factors for Intrastate End-User Revenues [1]
1998	First Quarter	3.19 %	0.72 %
	Second Quarter	3.14	0.76
	Third Quarter	3.14	0.75
	Fourth Quarter	3.18	0.75
1999	First Quarter	3.18	0.58
	Second Quarter	3.05	0.57
	Third Quarter	2.94	0.99
	Fourth Quarter	2.887	1.10
		5.8995 [2]	
2000	First Quarter	5.8770	
	Second Quarter	5.7101	
	Third Quarter	5.5360	
	Fourth Quarter	5.6688	
2001	First Quarter	6.6827	
	Second Quarter	6.8823	
	Third Quarter	6.8941	
	Fourth Quarter	6.9187	
2002	First Quarter	6.8086	
	Second Quarter	7.2805	
	Third Quarter [3]	7.2805	
	Fourth Quarter	7.2805	
2003	First Quarter	7.2805	
	Second Quarter [4]	9.1	
	Third Quarter	9.5	
	Fourth Quarter	9.2	
2004	First Quarter	8.7	
	Second Quarter	8.7	
	Third Quarter	8.9	
	Fourth Quarter	8.9	
2005	First Quarter	10.7	

[1] Initially, contributions for the schools and libraries and rural health care support mechanisms were based on interstate, international, and intrastate end-user telecommunications revenues, while contributions for high-cost and low-income support mechanisms were based on interstate and international end-user telecommunications revenues. *See Federal-State Joint Board on Universal Service* , CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9200-05 (1997). Following a decision by the United States Court of Appeals for the Fifth Circuit, the Commission established a single contribution base for all universal service support mechanisms based on interstate and international revenues. *See Federal-State Joint Board on Universal Service, Access Charge Reform* , Sixteenth Order on Reconsideration and Eighth Report and Order in CC Docket No. 96-45 and Sixth Report and Order in CC Docket No. 96-262, 15 FCC Rcd 1679, 1685-86, para. 15 (1999) (*Eighth Report and Order).*

[2] Consistent with the Eighth Report and Order, the Wireline Competition Bureau (formerly Common Carrier Bureau) issued a single universal service contribution factor for November and December 1999. Effective November 1, 1999, this single contribution factor superseded the fourth quarter 1999 contribution factors previously announced by the Bureau on September 10, 1999. See Proposed Fourth Quarter 1999 Universal Service Contribution Factors, CC Docket No. 96-45, Public Notice, DA 99-2109 (Com. Car. Bur., rel. Oct. 8, 1999); See Proposed Fourth Quarter 1999 Universal Service Contribution Factors, CC Docket No. 96-45, Public Notice, DA 99-1857 (Com. Car. Bur., rel. Sept. 10, 1999).

[3] In the Schools First Report and Order, the Commission concluded that unused funds from the schools and libraries support mechanism would be applied to stabilize the collection requirement for universal service for the third and fourth quarters of 2002, and the first quarter of 2003, as necessary. (*See Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 2-6, First Report and Order, 17 FCC Rcd 11521 (2002).)

[4] Beginning with the second quarter of 2003, carriers contribute based on projected, collected, end-user interstate and international telecommunications revenues. Previously, carriers contributed based on historical, gross-billed revenues. The Commission also released an Order and Second Order on Reconsideration, which, inter alia, directed the Wireline Competition Bureau to announce the universal service contribution factor as a percentage rounded up to the nearest tenth of one percent. *(See Federal Joint Board on Universal Service, 1998 Biennial Regulatory Review - Streamlined Contributor Reporting Requirements Associated with Administration of Telecommunications Relay Service, North American Numbering Plan, Local Number Portability, and Universal Service Support Mechanisms, Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the American with Disabilities Act of 1990, Administration of the North American Numbering Plan and North American Numbering Plan Cost Recovery Contribution Factor and Fund Size, Number Resource Optimization, Telephone Number Portability, Truth-in-Billing and Billing Format,* Order and Second Order on Reconsideration, CC Docket Nos. 96-45, 98-171, 90-571, 92-237, 99-200, 95-116, 98-170, FCC 03-58 (rel. March 14, 2003), at para. 22.)

Source: Quarterly Public Notices on universal service contribution factors in CC Docket 96-45.

Table 19.17
Share of Universal Service Contributions
By Principal Type of Contributor Using Traditional Carrier Categories [1] [2]

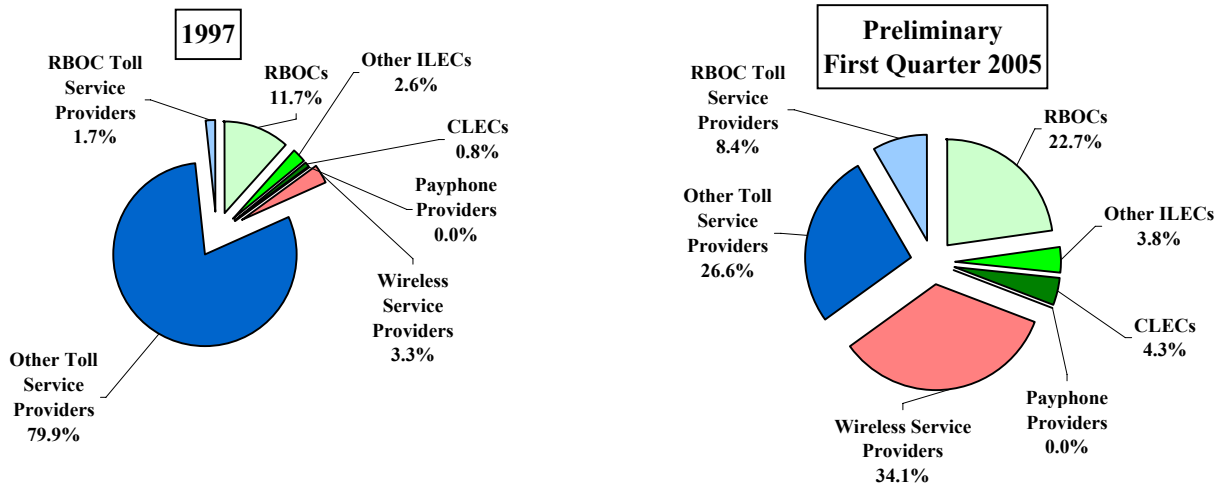
Service Provider Category	1997	1998	1999	2000	2001	2002	2003	FCC Form 499-Q 2004	FCC Form 499-Q Q1 2005
Regional Bell Operating Companies (RBOCs) Including CLEC Affiliates.	11.7 %	14.4 %	14.3 %	16.2 %	18.3 %	19.9 %	19.9 %	22.6 %	22.7 %
Incumbent Local Exchange Carriers (ILECs) Other Than RBOCs	2.6	1.4	1.5	1.7	2.1	2.8	3.2	3.8	3.8
Competitive Local Exchange Carriers (CLECs) Local Resellers and Other Local Carriers Other Than RBOCs	0.8	1.3	2.6	2.2	2.7	3.3	3.5	3.9	4.3
Total: Fixed Local Service Providers	15.1	17.1	18.5	20.1	23.1	26.0	26.6	30.3	30.9
Payphone Providers	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Wireless Service Providers	3.3	5.1	6.6	9.2	12.0	17.2	24.8	32.6	34.1
RBOC Toll Service Providers	1.7	1.7	2.0	2.3	3.0	3.4	5.0	7.7	8.4
Other Toll Service Providers	79.9	76.0	72.9	68.3	61.9	53.3	43.6	29.4	26.6
Total: Toll Service Providers	81.6	77.7	74.9	70.6	64.9	56.7	48.6	37.1	35.0
Total All Filers	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

[1] For years 1997 through 2002, the percentages are based on shares of reported subject interstate and international end-user billed revenues. The percentages shown for 2003 are based on shares of reported subject interstate and international end-user collected revenues. Preliminary percentages shown for 2004 and first quarter 2005 are based on projected collected revenues from FCC Form 499-Q filings. Calculations exclude revenues for calls that both originate and terminate in foreign points. Calculations for years 1999 through 2002 include revenues for all filers. *De minimis* carriers were exempt from filing FCC Form 457 worksheets, which were used to identify 1997 and 1998 revenues, and are now exempt from filing FCC Form 499-Q worksheets.

[2] Prior to 2004, the FCC Form 499-A asked each filer to identify a single category of communications business that best described its operations. The service provider categories listed on FCC Form 499-A correspond to traditional breakdowns of the industry. Starting in 2004, carriers were allowed to specify more than one category and were allowed to identify themselves as an *All Distance* service provider. Revenues have been categorized using the traditional industry classification that best described each company.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2005).

Chart 19.8
Share of Universal Service Contributions by Principal Type of Contributor



20 Appendix A – List of Publications by the Industry Analysis and Technology Division

Most recent release dates are shown in parentheses:

High-Speed Services for Internet Access: Status as of June 30, 2004 (December 2004).

Infrastructure of the Local Operating Companies (October 2000). Updates can be found in Section 10 of the *Monitoring Report.*

Local Telephone Competition: Status as of June 30, 2004 (December 2004).

Monitoring Report (October 2004).

Numbering Resource Utilization in the United States (March 2005).

Quality of Service of Service Report of the Local Operating Companies (December 2004).

Reference Book of Rates, Price Indices, and Expenditures for Telephone Service (July 2004).

State-by-State Telephone Revenues and Universal Service Data (April 2001).

Statistics of Communications Common Carriers, 2003/2004 Edition (October 2004).

Statistics of the Long Distance Telecommunications Industry (May 2003).

Telecommunications Industry Revenues: 2003 (March 2005).

Telecommunications Provider Locator (March 2005).

Telephone Penetration by Income by State (March 2005).

Telephone Subscribership in the United States (March 2005).

Telephone Subscribership on American Indian Reservations and Off-Reservations Trust Lands (May 2003).

Trends in the International Telecommunications Industry (July 2004).

Trends in Telephone Service (May 2004).

21 Appendix B – Sources of Telecommunications Information

The information in this report and, in many cases, more detailed information can be downloaded from the **FCC-State Link** Internet site at www.fcc.gov/wcb/stats.

Printed copies of various statistical reports are available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, S.W., and from the Commission's duplicating contractor, Best Copy and Printing, Inc., 800-378-3160.

Additional information on regulated carriers, including investments, revenues, expenses, and earnings, is contained in the annual *Statistics of Communications Common Carriers*. The 2003/2004 edition can be found on the **FCC-State Link**.

Filings with the Securities and Exchange Commission, such as the annual reports on Form 10-K, can be downloaded from the Edgar Internet site at www.sec.gov.

The names, addresses and telephone numbers for companies in the telephone industry are published in the Industry Analysis and Technology Division's *Telecommunications Provider Locator*, which can also be downloaded from the **FCC-State Link**, the most recent being released March 2005.

In April 2001, the Commission began requiring all new and existing telecommunications carriers providing interstate telecommunications services to register with the FCC using the FCC Form 499-A. Carriers file the form with the Commission's data collection agent, the Universal Service Administrative Company. Copies of the form can be downloaded from the Internet at www.fcc.gov/formpage.html. Information on registered companies can be found on the Internet at http://gullfoss2.fcc.gov/cib/form499/499a.cfm.

The information on consumer expenditures (Table 3.1), employment (Tables 5.1 and 5.2), and price indices (Tables 12.1 - 12.3) comes from the Bureau of Labor Statistics and can be found on the Internet at www.bls.gov.

FCC rules require carriers to provide more detailed traffic data about international telephone service than about domestic service. Because of delays in international settlements, such information is typically received by the Commission much later than domestic data and is usually published separately. Tables 6.1 - 6.5 contain summary information on international telephone service. More detailed international data are available from *International Telecommunications Data* and *Trends in the International Telecommunications Industry*, both of which are published by the International Bureau and can also be found on the **FCC-State Link**.

Tables 18.1and 18.2 on area codes come from the North American Numbering Plan Administration (NANPA), which is part of Neustar, Inc. Additional information on NANPA can be found on the Internet at www.nanpa.com.

The information on wireless telephone service shown in Tables 11.1 and 11.3 was prepared from data received from CTIA-The Wireless Association™ 1600 16th Street N.W., Washington, D.C. 20036, 202-785-0081. CTIA can be found on the Internet at www.wow-com.com.

TNS Telecoms (TNS) has donated databases to the Commission containing information on residential phone usage collected from actual consumer telecommunications bills. TNS Telecoms has granted the Commission permission to use these databases for research purposes and to publish the industry level results. TNS Telecoms has been monitoring the telecommunications market since 1995 through both the ReQuest® consumer survey and Bill Harvesting® in the residential market and the BusinessWave® business survey in the business market. Tables 9.7, 9.8, and 14.1 - 14.6 are developed from these databases. For additional information, visit www.tnstelecoms.com or contact them at 1-866-811-TNST or by e-mail at contact@tnstelecoms.com. Their address is 101 Greenwood Avenue, Suite 502, Jenkintown, PA 19046.

On September 9, 2004, the Commission released its Fourth Report to the Congress on the *Availability of Advanced Telecommunications Capability in the United States.* A copy of this can be found on the Commission's web site at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-208A1.pdf. A copy may also be obtained through from the Commission's duplicating contractor.

Copies of NTIA's report *A Nation Online: Entering the Broadband Age* can be obtained through NTIA's web site at www.ntia.doc.gov or by contacting NTIA's Office of Public Affairs at (202) 482-7002.

Tables 17.1, 17.2, and 17.4 contain information from the ARMIS 43-07 reports for the Bell operating companies. Table 17.3 contains information from the ARMIS 43-05. Individual carrier information can be obtained from the ARMIS web page at www.fcc.gov/wcb/armis.

Chart 17.1 shows the number of patents granted for telecommunications. Additional information on U.S. patents can be found on the Internet at www.uspto.gov.

The National Exchange Carrier Association (NECA) administers access charge revenue pooling for about 1,150 local telephone companies. Their headquarters is located at 80 South Jefferson Road, Whippany, NJ 07981-1009, and they can be reached at 800-228-8597. NECA's website can be found on the Internet at www.neca.org.

The United States Telecom Association (USTA) (1401 H Street N.W., Washington, D.C. 20005, 202-326-7300) represents most incumbent local telephone companies. Like many trade associations, it collects information from each of its members. It publishes and sells various reports including an annual publication called *Phone Facts*. USTA's website can be found on the Internet at www.usta.org.

Comptel/ALTS was formed in March 2005 by the merger of Comptel/ASCENT and the Association for Local Telecommunications Services (ALTS) and is currently located at the former Comptel/ASCENT headquarters at 1900 M Street N.W., Suite 800, Washington, D.C. 20036, 202-296-6650). They can be found on the Internet at http://www.comptelascent.org, and represent facilities-based competitive telecommunications service providers, emerging VOIP providers, integrated communications companies, and their service partners.

22 Appendix C – Contacting the Report Authors

Trends in Telephone Service was prepared by the Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission. Principal authors of the report can be contacted at their electronic mail addresses or by calling the Industry Analysis and Technology Division at 202-418-0940. Users of TTY equipment should call 202-418-0484.

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Advanced Telecommunications ..... James Eisner or Ellen Burton
Consumer Expenditures ..... Paul Zimmerman
Earnings ..... Katie Rangos
Employment and Labor Productivity ..... Kenneth Lynch or Katie Rangos
International Telephone Service ..... Jim Lande
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Local Telephone Competition. ..... James Eisner or Ellen Burton
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Customer Response

Publication: ***Trends in Telephone Service – Tables Compiled as of April 2005***

You can help us provide the best possible information to the public by completing this form and returning it to the Industry Analysis and Technology Division of the FCC's Wireline Competition Bureau.

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