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NEWS MEDIA CONTACT:
Mike Balmoris at (202) 418-0253
Email: Michael.Balmoris@fcc.gov

FEDERAL COMMUNICATIONS COMMISSION RELEASES STUDY ON TELEPHONE TRENDS

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

Highlights from the report include:

Advanced Telecommunications Services

- High-speed lines (over 200 kbps in at least one direction) connecting homes and businesses to the Internet increased by 23% during the second half of 2002, from about 16.2 million lines in service as of June 30, 2002 to 19.9 million as of December 31, 2002.
- About 13.0 million high-speed lines provided speed of over 200 kbps in both directions as of December 31, 2002, and thus met the Commission's definition of advanced services, compared to about 10.4 million as of June 30, 2002.

Local Telephone Competition

- As of December 2002, competitive local exchange carriers (CLECs) provided 24.8 million (or 13.2%) of the approximately 188 million nationwide local telephone lines that were in service to end users as opposed to 21.6 million (or 11.4%) of nationwide local telephone lines as of June 2002.
- About one-fourth of CLEC end-user lines are served over local loop facilities that the CLECs own.
- Incumbent local exchange carriers (ILECs) reported providing other carriers about 2.7 million lines on a resale basis as of December 31, 2002, compared to about 3.5 million lines six months earlier. ILECs provided about 14.5 million unbundled network element (UNE) loops as of December 31, 2002, compared to about 11.5 million loops six months earlier.

International Calling

- The number of calls made from the United States to other countries increased from 200 million in 1980 to 6.3 billion in 2001.
- In 2001, Americans spent about \$11.4 billion on international calls. On average, carriers billed 34 cents per minute for international calls in 2001, a decline of more than 74% since 1980.

Telephone Rates

- The average monthly local residential charge for service was \$23.38 in October 2002 as compared to \$19.72 in October 1992.
- For a business with a single phone line, the representative charge for service was \$43.59 in October 2002, as compared to \$42.29 in October 1992.
- The average connection charge for a residential phone was \$42.39 as of October 2002, compared to \$45.01 in October 1992. The average connection charge for a business phone was \$72.35 as of October 2002, compared to \$78.07 in October 1992.
- From 1984 to 2001, the cost of long distance calling dropped from 32 cents per minute to 10 cents per minute. The average price of 10 cents per minute represents a mix of international calling (35 cents per minute) and domestic interstate calling (8 cents per minute).

Subscribership / Household Expenditures /Toll-Free Numbers

- More than twenty-five million households have been added to the nation's telephone system since November 1983. As of November 2002, 104.0 million households had telephone service.
- According to sample data from TNS Telecoms, a marketing information research firm, the average monthly household telecommunications expenditures for households with wireline service were \$83 for 2002; \$36 for local exchange service, \$12 for long distance service, and \$35 for wireless service. The corresponding expenditures for 1995 were \$30 for local exchange service, \$21 for long distance service, and \$7 for wireless service. According to the Cellular Telecommunications & Internet Association (CTIA), the average monthly wireless bill was \$48.40 as of December 2002, compared to \$68.68 as of December 1992.
- There are currently four toll-free prefixes in use - 800, 888, 877, and 866 - with almost 23 million toll-free numbers assigned as of the end of June 2003.

The report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, SW, Washington, DC. Copies may be purchased by calling Qualex International at (202) 863-2893. The report can also be downloaded from the **FCC-State Link** Internet site at www.fcc.gov/wcb/stats.

- FCC -

Wireline Competition Bureau contacts: Industry Analysis and Technology Division at (202) 418-0940, TTY (202) 418-0484.

Trends in Telephone Service

*Industry Analysis and Technology Division
Wireline Competition Bureau*

August 2003

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 Qualex International, Portals II, 445 12th Street S.W., Room CY-B402, Washington DC 20554 at (202) 863-2893, facimile (202) 863-2898, or via e-mail qualexint@aol.com. The report can also be downloaded from the **FCC-State Link** Internet site at www.fcc.gov/wcb/stats.

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Introduction

Trends in Telephone Service is published by the Industry Analysis and Technology Division (formerly the Industry Analysis Division) of the Federal Communication Commission's Wireline Competition Bureau (formerly the Common Carrier 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, long distance carriers, telephone rates and price changes, 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. 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 contacting the authors of this report in Appendix C.

Highlights from sections in the report on advanced telecommunications services, international calling, local competition, telephone rates, subscribership, and toll-free numbers are shown below.

Advanced Telecommunications Services

- High-speed lines (over 200 kbps in at least one direction) connecting homes and businesses to the Internet increased by 23% during the second half of 2002, from about 16.2 million lines in service as of June 30, 2002 to 19.9 million as of December 31, 2002.
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¹ *Trends in Telephone Service* was last published in May 2002.

² See Appendix A for a list of these publications.

- About one-fourth of CLEC end-user lines are served over local loop facilities that the CLECs own.
- Incumbent local exchange carriers (ILECs) reported providing other carriers about 2.7 million lines on a resale basis as of December 31, 2002, compared to about 3.5 million lines six months earlier. ILECs provided about 14.5 million unbundled network element (UNE) loops as of December 31, 2002, compared to about 11.5 million loops six months earlier.

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- There are currently four toll-free prefixes in use - 800, 888, 877, and 866 - with almost 23 million toll-free numbers assigned as of the end of June 2003.

1 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.

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.¹ 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.

¹ Under the Commission's nomenclature, SLCs are called access charges even though they are collected from customers (end users) rather than long distance carriers.

As part of access charge reform in May of 2000, the FCC eliminated PICCs and consolidated them with SLCs, and 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

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, 2002, the caps on SLCs for primary residential and single-line business, non-primary residential, and multiline business and Centrex lines equal \$6.00, \$7.00, and \$9.20, respectively. For NECA pool companies, the residential SLC cap is \$6.00, 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	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

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.

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 07/01/02 to 6/30/03							2001 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
Aliant	\$4.96	\$4.96	\$5.63	\$0.00	\$0.00	\$0.00	\$0.00	185	15	78
BellSouth	6.00	7.00	7.84	0.00	0.00	0.74	0.08	15,019	2,499	6,192
Cincinnati Bell	5.19	5.19	5.19	0.00	0.00	0.00	0.00	655	82	288
Citizens	5.73	6.42	9.20	0.00	0.00	4.31	0.63	1,658	180	511
Iowa Telecomm	6.00	7.00	9.10	0.00	0.00	4.31	0.00	224	17	46
Qwest	5.73	6.29	6.84	0.00	0.00	0.10	0.10	10,228	1,873	4,720
SBC	4.93	4.86	4.89	0.00	0.00	0.00	0.00	30,560	6,781	17,506
Sprint	5.50	5.82	7.27	0.00	0.00	0.28	0.00	5,316	847	1,829
Valor	6.00	7.00	9.12	0.00	0.00	4.07	2.13	339	55	92
Verizon	5.96	6.38	6.97	0.00	0.00	0.97	0.14	33,123	6,690	15,982
Price Caps	5.58	5.88	6.33	0.00	0.00	0.50	0.08	97,308	19,040	47,243
NECA	6.00	NA	9.20	0.00	NA	0.00	NA	11,510	NA	2,066
Price Caps and NECA	\$5.62	\$5.88	\$6.45	\$0.00	\$0.00	\$0.48	\$0.08	108,818	19,040	49,309

NA - Not Available.

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.

Source: Access tariff filings.

Table 1.4
Interstate Per-Minute Access Charges by Carrier
(In Cents per Minute) ¹

Company	Rates Effective from 7/1/02-12/31/02					Year 2001 Minutes of Use (Millions)		
	Carrier Common Line per Originating Access Minute	Carrier Common Line per Terminating Access Minute	Switched Traffic Sensitive per Access Minute	Switched Non-Traffic Sensitive per Access Minute ²	Total Charge per Conversation Minute ³	CCL Originating	CCL Terminating	Local Switching
Aliant	0.00 ¢	0.00 ¢	0.73 ¢	0.37 ¢	2.24 ¢	257	643	913
BellSouth	0.00	0.00	0.35	0.20	1.13	27,108	55,240	76,617
Cincinnati Bell	0.00	0.00	0.52	0.26	1.60	992	2,133	3,134
Citizens	0.12	0.00	0.71	0.54	2.69	2,035	4,506	6,560
Iowa Telecomm	0.03	0.00	0.86	0.27	2.36	413	326	739
Qwest	0.00	0.00	0.53	0.15	1.41	20,509	37,988	58,539
SBC	0.00	0.00	0.44	0.17	1.25	71,493	76,858	149,482
Sprint	0.02	0.00	0.60	0.13	1.52	6,978	18,896	26,128
Valor	0.54	0.11	0.78	0.34	2.98	358	916	1,274
Verizon	0.02	0.00	0.42	0.23	1.35	53,826	128,385	182,882
Price Caps	0.01	0.00	0.44	0.20	1.33	183,968	325,891	506,268
NECA	0.20	0.20	1.45	0.83	5.08	11,755	21,652	18,521
All Price Caps and NECA	0.02	0.01	0.48	0.22	1.46	195,723	347,543	524,789

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 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.

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.

Table 2.2 shows advanced services lines (over 200 Kbps in both directions) by the above technologies. Table 2.3 and Table 2.4 show comparable data with respect to residential and small business customers only. Table 2.5 shows high-speed lines by the above technologies as of December 31, 2002. Table 2.6 shows high-speed lines by state over time.

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

Types of Technology ²	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Percent Change	
								Dec 2001 - Jun 2002	Jun 2002 - Dec 2002
ADSL	369,792	951,583	1,977,101	2,693,834	3,947,808	5,101,493	6,471,716	29 %	27 %
Other Wireline	609,909	758,594	1,021,291	1,088,066	1,078,597	1,186,680	1,216,208	10	2
Coaxial Cable	1,411,977	2,284,491	3,582,874	5,184,141	7,059,598	9,172,895	11,369,087	30	24
Fiber	312,204	307,151	376,203	455,593	494,199	520,884	548,471	5	5
Satellite or Fixed Wireless	50,404	65,615	112,405	194,707	212,610	220,588	276,067	4	25
Total Lines	2,754,286	4,367,434	7,069,874	9,616,341	12,792,812	16,202,540	19,881,549	27 %	23 %

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

Types of Technology ²	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Percent Change	
								Dec 2001 - Jun 2002	Jun 2002 - Dec 2002
ADSL	185,950	326,816	675,366	998,883	1,369,143	1,852,879	2,813,384	35 %	52 %
Other Wireline	609,909	758,594	1,021,291	1,088,066	1,078,597	1,186,680	1,216,208	10	2
Coaxial Cable	877,465	1,469,130	2,193,609	3,329,976	4,394,778	6,819,395	8,342,234	55	22
Fiber	307,315	301,143	376,197	455,549	486,483	518,908	548,123	7	6
Satellite or Fixed Wireless	7,816	3,649	26,906	73,476	75,341	66,073	65,929	-12	0
Total Lines	1,988,455	2,859,332	4,293,369	5,945,950	7,404,343	10,443,935	12,985,878	41 %	24 %

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 as 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) fixed wireless systems, which use radio spectrum to communicate with a radio transmitter at the subscriber's premises.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2002* (June 2003).

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

Types of Technology ²	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Percent Change	
								Dec 2001 - Jun 2002	Jun 2002 - Dec 2002
ADSL	291,757	772,272	1,594,879	2,490,740	3,615,989	4,395,033	5,529,241	22 %	26 %
Other Wireline	46,856	111,490	176,520	138,307	139,660	223,599	213,489	60	-5
Coaxial Cable	1,402,394	2,215,259	3,294,546	4,998,540	7,050,709	9,157,285	11,342,512	30	24
Fiber	1,023	325	1,994	2,623	4,139	6,120	14,692	NM	NM
Satellite or Fixed Wireless	50,189	64,320	102,432	182,165	194,897	202,251	256,978	4	27
Total Lines	1,792,219	3,163,666	5,170,371	7,812,375	11,005,396	13,984,287	17,356,911	27 %	24 %

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

Types of Technology ²	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Percent Change	
								Dec 2001 - Jun 2002	Jun 2002 - Dec 2002
ADSL	116,994	195,324	393,246	916,364	1,243,996	1,580,575	2,197,665	27 %	39 %
Other Wireline	46,856	111,490	176,520	138,307	139,660	223,599	213,489	60	-5
Coaxial Cable	872,024	1,401,434	2,177,328	3,146,953	4,388,967	6,809,170	8,322,157	55	22
Fiber	138	325	1,992	2,617	3,523	5,118	14,408	NM	NM
Satellite or Fixed Wireless	7,682	2,916	17,043	60,988	58,113	47,787	47,903	-18	0
Total Lines	1,043,694	1,711,488	2,766,130	4,265,229	5,834,258	8,666,249	10,795,624	49 %	25 %

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

NM - Not meaningful due to small number of lines.

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 purchase service varies among end-user customers. For example, a high-speed service delivered to the end-user customer over other traditional wireline technology, such as 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) fixed wireless systems, which use radio spectrum to communicate with a radio transmitter at the subscriber's premises.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2002* (June 2003).

Table 2.5
High-Speed Lines by Technology as of December 31, 2002
(Over 200 kbps in at Least One Direction)

	ADSL	Coaxial Cable	Other ¹	Total
Alabama	56,860	144,259	26,769	227,888
Alaska	14,295	*	*	55,975
Arizona	72,324	251,373	47,242	370,939
Arkansas	35,594	*	*	100,280
California	1,485,309	1,179,204	371,243	3,035,756
Colorado	113,040	*	*	298,265
Connecticut	100,722	192,155	14,983	307,860
Delaware	*	*	*	51,100
District of Columbia	35,466	*	*	64,310
Florida	521,623	741,426	142,927	1,405,976
Georgia	305,004	243,142	106,687	654,833
Hawaii	*	*	*	*
Idaho	17,930	*	*	54,963
Illinois	300,497	316,169	117,505	734,171
Indiana	63,463	114,237	28,246	205,946
Iowa	29,161	83,994	7,898	121,053
Kansas	39,315	142,563	11,690	193,568
Kentucky	55,254	22,113	21,898	99,265
Louisiana	86,359	*	*	262,093
Maine	8,432	*	*	73,061
Maryland	115,687	241,264	34,446	391,397
Massachusetts	181,426	453,473	44,185	679,084
Michigan	111,182	472,405	57,179	640,766
Minnesota	98,316	212,126	25,120	335,562
Mississippi	*	40,276	*	80,922
Missouri	114,861	117,403	28,488	260,752
Montana	6,549	*	*	20,090
Nebraska	16,117	92,261	8,841	117,219
Nevada	36,662	*	*	159,179
New Hampshire	14,630	*	*	102,590
New Jersey	197,615	578,337	63,143	839,095
New Mexico	22,607	*	*	57,956
New York	391,686	1,185,233	148,377	1,725,296
North Carolina	124,031	406,024	63,984	594,039
North Dakota	8,826	*	*	20,024
Ohio	205,140	435,404	69,811	710,355
Oklahoma	65,378	*	*	196,556
Oregon	82,555	165,343	27,551	275,449
Pennsylvania	200,501	376,611	54,605	631,717
Puerto Rico	*	1,071	*	22,732
Rhode Island	*	*	3,997	89,821
South Carolina	38,293	159,944	24,743	222,980
South Dakota	6,308	7,916	3,836	18,060
Tennessee	74,034	252,596	42,740	369,370
Texas	486,833	740,469	122,326	1,349,628
Utah	57,025	*	*	121,744
Vermont	12,062	*	*	32,814
Virgin Islands	*	0	*	*
Virginia	96,805	320,154	46,496	463,455
Washington	200,189	246,627	38,247	485,063
West Virginia	*	65,542	*	78,980
Wisconsin	64,521	243,043	28,427	335,991
Wyoming	*	*	2,213	14,696
Reported Total	6,471,716	11,369,087	2,040,746	19,881,549

Note: Some previously published data have been revised.

* Data withheld to maintain firm confidentiality.

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

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2002* (June 2003).

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

	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002
Alabama	19,796	32,756	63,334	86,234	138,979	172,365	227,888
Alaska	*	*	934	20,906	50,277	46,791	55,975
Arizona	58,825	111,678	153,500	158,122	251,709	308,621	370,939
Arkansas	8,155	15,539	28,968	40,803	66,537	84,235	100,280
California	547,179	910,006	1,386,625	1,705,814	2,041,276	2,598,491	3,035,756
Colorado	36,726	64,033	104,534	147,220	177,419	243,810	298,265
Connecticut	36,488	63,772	111,792	149,057	191,257	236,490	307,860
Delaware	1,558	3,660	7,492	12,771	26,601	36,619	51,100
District of Columbia	13,288	16,926	27,757	39,101	43,278	55,197	64,310
Florida	190,700	244,678	460,795	651,167	911,261	1,119,693	1,405,976
Georgia	75,870	130,292	203,855	302,598	420,206	512,135	654,833
Hawaii	*	*	*	*	*	*	*
Idaho	*	8,070	15,908	20,233	18,445	43,119	54,963
Illinois	77,672	166,933	242,239	350,241	422,706	553,442	734,171
Indiana	20,059	49,702	60,494	80,364	123,704	159,392	205,946
Iowa	19,258	49,159	58,199	72,583	82,024	102,932	121,053
Kansas	26,179	42,679	68,743	101,734	125,963	149,733	193,568
Kentucky	23,570	24,237	32,731	39,297	67,870	90,284	99,265
Louisiana	28,133	43,294	74,950	121,685	164,760	207,257	262,093
Maine	19,878	17,864	26,266	38,149	49,523	61,406	73,061
Maryland	52,749	71,005	124,465	181,021	260,634	316,666	391,397
Massachusetts	114,116	185,365	289,447	357,256	505,819	583,627	679,084
Michigan	81,223	135,318	198,230	395,583	433,858	538,416	640,766
Minnesota	38,268	65,272	117,283	148,012	199,856	273,907	335,562
Mississippi	*	6,514	12,305	21,517	35,586	57,595	80,922
Missouri	23,347	46,903	100,403	123,915	181,794	224,282	260,752
Montana	*	*	7,378	10,446	13,037	17,969	20,090
Nebraska	36,748	44,188	54,085	55,188	71,451	92,849	117,219
Nevada	23,514	40,582	59,879	78,535	109,850	138,042	159,179
New Hampshire	22,807	33,045	42,364	55,658	71,200	86,200	102,590
New Jersey	101,832	144,203	285,311	428,514	590,192	693,036	839,095
New Mexico	*	2,929	28,497	20,482	31,940	44,942	57,956
New York	186,504	342,743	603,487	893,032	1,199,159	1,460,894	1,725,296
North Carolina	57,881	81,998	136,703	205,616	357,906	461,736	594,039
North Dakota	*	2,437	4,227	6,277	6,082	14,164	20,024
Ohio	160,792	156,980	230,525	358,965	436,766	580,078	710,355
Oklahoma	96,730	163,703	95,138	92,947	114,931	151,213	196,556
Oregon	27,062	44,186	76,839	93,242	158,048	199,549	275,449
Pennsylvania	71,926	79,892	176,670	263,236	376,439	516,488	631,717
Puerto Rico	*	*	*	*	*	*	22,732
Rhode Island	*	20,628	30,919	49,215	64,293	72,553	89,821
South Carolina	25,229	32,824	63,914	96,839	135,165	175,088	222,980
South Dakota	*	3,516	2,839	5,448	9,585	12,555	18,060
Tennessee	66,307	87,317	122,391	152,510	237,401	294,573	369,370
Texas	152,518	276,087	522,538	646,839	840,665	1,050,511	1,349,628
Utah	11,635	19,612	35,970	55,103	72,977	93,928	121,744
Vermont	*	1,551	7,773	16,230	21,795	29,990	32,814
Virgin Islands	0	*	*	*	*	*	*
Virginia	51,305	72,436	139,915	212,808	292,772	360,722	463,455
Washington	71,930	118,723	195,628	227,066	335,667	422,348	485,063
West Virginia	*	1,835	6,498	16,697	32,848	58,209	78,980
Wisconsin	18,599	34,262	76,257	127,755	182,395	257,099	335,991
Wyoming	*	*	*	*	7,856	10,990	14,696
Reported Total	2,754,286	4,367,434	7,069,874	9,616,341	12,792,812	16,202,540	19,881,549

Note: Some previously published data for December 2002 have been revised.

* Data withheld to maintain firm confidentiality.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status of December 31, 2002* (June 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 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 over the past twenty years from \$360 per household to \$914 in 2001.

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 carrier providing the service. Table 3.2 presents average monthly household expenditures for local exchange, long distance and wireless carriers for 1995 through 2002.

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

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

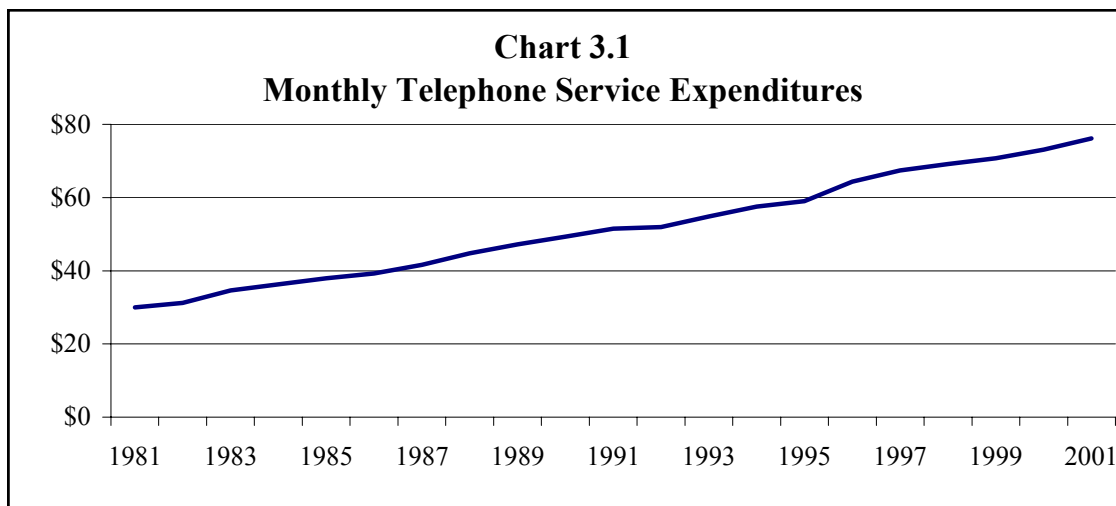


Table 3.2

**Average Monthly Household Telecommunications Expenditures
By Type of Provider**

Year	Local Exchange Carriers	Long Distance Carriers	Wireless Carriers	Total
1995	\$30	\$21	\$7	\$58
1996	30	21	9	60
1997	32	25	11	68
1998	33	23	14	69
1999	34	21	17	72
2000	35	18	23	75
2001	36	15	29	79
2002	36	12	35	83

Note: Monthly expenditures are based on monthly telephone bills for those households with wireline telephone service. Excludes households in Alaska and Hawaii.

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, 2000, 2001, and 2002. 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 1997-2002 for price-cap carriers. Rates of return for 1991-1996 can be found in the August 2001 *Trends* report.

The rates of return were 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 2002
Price-Cap Companies Reporting FCC Form 492A
(Final Reports for 1997 Through 2001 and Initial Report for 2002) ¹

Reporting Entity	2002	2001	2000	1999	1998	1997
1 BellSouth Telecommunications, Inc.	19.27 %	21.25 %	22.83 %	20.99 %	20.80 %	17.91 %
2 Qwest Corporation, Including Malheur and El Paso	NA	22.13	19.93	19.06	16.56	15.41
SBC Communications, Inc.						
3 Southwestern Bell Telephone Company L.P.	15.51	18.81	15.17	10.22	9.91	10.32
4 Ameritech Operating Companies	20.91	25.72	30.24	28.93	22.59	18.22
5 Nevada Bell Telephone Company	15.97	20.86	21.55	19.26	16.02	19.47
6 Pacific Bell Telephone Company	21.76	23.79	19.20	21.01	16.50	11.98
7 Southern New England Telephone Company, The	19.64	23.57	18.21	12.12	10.99	12.70
Verizon Telephone Companies						
8 Verizon Telephone Companies (Verizon FCC Tariff No. 1) (Former Bell Atlantic Companies)	11.97	12.93	13.36	13.66		
Bell Atlantic					13.88	14.73
Bell Atlantic (NYNEX)					11.40	13.72
New England Telephone and Telegraph Co.						
New York Telephone						
Verizon - West (Former GTE Companies)						
9 Verizon California Inc. (California - GTCA)	28.84	28.48	25.87	22.01	17.19	17.68
10 Verizon California Inc. (California - COCA)	28.24	29.80	28.74	28.28	22.71	19.16
11 Verizon California Inc. (Arizona - COAZ)	6.41	13.25	10.90	15.57	13.80	14.17
12 Verizon California Inc. (Nevada - CONV)	24.07	26.66	28.82	20.57	24.01	31.44
13 Verizon Florida Inc. (Florida - GTFL)	22.02	29.23	21.90	18.93	14.58	19.14
14 Verizon Hawaii Inc. (Hawaii - GTHI)	15.28	16.72	17.87	17.62	15.64	10.55
15 Verizon North Inc. (COPA + COQS = COPT)	39.35	39.71	41.05	39.58	45.97	36.83
16 Verizon North Inc. (Illinois - COIL)	54.01	53.67	44.51	41.03	14.11	41.14
17 Verizon North Inc. (Indiana - COIN)	46.00	46.55	47.67	41.40	34.61	33.26
18 Verizon North Inc. (Ohio - GTOH)	19.59	20.45	21.88	21.70	21.83	24.37
19 Verizon North Inc. (Pennsylvania - GTPA)	22.56	23.17	21.95	21.41	14.67	20.62
20 Verizon North Inc. (Wisconsin - GTWI)	9.81	14.16	16.99	17.85	16.08	18.75
21 Verizon North/Contel Systems of South (GTIN + GLIN = GAIN)	25.10	32.82	33.00	32.47	29.06	23.61
22 Verizon North/Contel Systems of South (GTMI + GLMI = GAMI)	16.65	17.49	16.45	15.75	13.17	15.33
23 Verizon North/GTE South (GTIL + GLIL = GAIL)	21.60	23.67	23.90	22.35	23.07	21.59
24 Verizon Northwest Inc. (Oregon - GTOR)	26.13	31.69	30.95	31.56	27.03	28.23
25 Verizon Northwest Inc. (West Coast CA - GNCA)	(5.18)	1.91	(8.35)	(9.93)	(6.85)	(25.83)
26 Verizon Northwest Inc. (Washington - COWA)	31.49	40.06	39.49	39.17	30.41	31.85
27 Verizon Northwest Inc. (Washington - GTWA)	29.00	34.03	33.26	32.91	27.33	24.41
28 Verizon Northwest Inc. (Idaho - GTID)	33.02	38.74	34.17	32.24	30.89	30.52
29 Verizon South Inc. (North Carolina - GTNC)	23.63	30.08	26.44	24.85	27.92	24.48
30 Verizon South Inc. (N. Carolina - CONC)	21.15	22.17	17.75	19.87	12.78	16.63
31 Verizon South Inc. (GTSC + COSC = GTST)	29.71	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. (S. Carolina - COSC)					26.14	25.09
32 Verizon South Inc. (Virginia - COVA)	39.94	40.69	40.85	34.74	35.19	33.65
33 Verizon South Inc. (Virginia - GTVA)	7.23	9.53	6.62	9.94	20.56	23.76
34 GTE Southwest Inc. (Texas - COTX)	12.12	11.90	12.17	17.13	14.96	18.10
35 GTE Southwest Inc. (Texas - GTTX)	20.56	24.35	21.65	21.42	16.43	14.81
36 Micronesian Telecomms. Corp. (N. Mariana Islands - GTMC)	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 2002
Price-Cap Companies Reporting FCC Form 492A - Continued
(Final Reports for 1997 Through 2001 and Initial Report for 2002) ¹

Reporting Entity	2002	2001	2000	1999	1998	1997
Sprint						
37 Central Telephone - Nevada	23.80 %	19.61 %	19.29 %	21.15 %	17.79 %	17.07 %
38 Sprint - Florida	29.41	25.89	27.38	27.17	26.14	20.05
39 Sprint Local Telephone Cos. - Eastern (NJ & PA)	37.78	26.21	25.62	20.87	14.59	17.36
40 Sprint Local Telephone Cos. - Midwest (MO, KS, MN, NE, WY, TX)	18.89	16.63	18.88	17.69	19.66	19.97
41 Sprint Local Telephone Cos. - North Carolina	36.64	25.56	22.23	15.92	12.55	16.54
42 Sprint Local Telephone Cos. - Northwest (OR & WA)	34.62	31.55	32.77	31.86	32.54	30.59
43 Sprint Local Telephone Cos. - Southeast (TN, VA & SC)	33.76	25.33	23.32	17.50	15.87	17.62
44 United Telephone Co. of Indiana, Inc.	41.75	35.19	38.21	28.98	24.19	26.13
45 United Telephone Co. of Ohio	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. (ALLTEL)	12.20	12.57	12.99	19.27	15.02	12.27
47 Kentucky ALLTEL - Lexington, Inc.	27.78					
48 Kentucky ALLTEL - London, Inc.	28.76					
49 CenturyTel of Northern Alabama	14.99					
50 CenturyTel of Southern Alabama	31.59					
51 Cincinnati Bell Telephone Company	28.64	30.09	28.95	25.45	17.81	20.04
52 Citizens Telecommunications Cos. (Tariff 1)	19.27	15.73	19.68	16.71	17.87	9.77
53 Citizens Telecommunications Cos. (Tariff 2)	20.67	17.30	24.05	15.74	14.29	13.25
54 Citizens Telecommunications Cos. (Tariff 3)	8.94	4.52	16.12	15.56		
55 Citizens Telecommunications Cos. (Tariff 4)	23.31	13.08	30.94			
56 Citizens Telecommunications Cos. (Tariff 5)	4.90	0.86	(11.23)			
57 Frontier Telephone of Rochester, Inc.	11.47	12.32	18.91	16.77	18.37	13.19
58 Frontier Tier 2 Concurring Companies	33.34	38.12	38.95	43.42	45.45	31.93
59 Frontier Communications of Minnesota & Iowa	31.15	25.24	33.16	35.40	29.28	28.26
60 Iowa Telecom Service Group (SAC 351167)	14.26	13.07				
61 Iowa Telecom Systems Service Group (SAC 351170 & 351178)	20.47	18.45				
62 Valor New Mexico #1164	15.88	11.45	20.67			
63 Valor New Mexico #1193	16.82	8.39	13.35			
64 Valor Oklahoma	9.28	11.65	11.22			
65 Valor Texas	10.63	5.70	5.24			
Maximum Rate of Return	54.01 %	53.67 %	47.67 %	43.42 %	47.21 %	48.69 %
Minimum Rate of Return	(5.18)	0.86	(11.23)	(9.93)	(6.85)	(25.83)
Weighted Arithmetic Mean	17.77	19.95	18.04	18.50	16.52	15.60
Standard Deviation	6.02	5.84	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).

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 using the Standard Industrial Classification (SIC) 481 and for a subset of this industry, telephone communications minus radiotelephone (SIC 4813). The difference between these two figures yields the number of employees in the radiotelephone industry (SIC 4812).

SIC 4813 includes establishments primarily engaged in furnishing telephone voice and data communications, except radiotelephone and telephone answering services. SIC 4812 includes establishments primarily engaged in providing two-way radiotelephone communication services, such as cellular telephone service. It also includes telephone paging and beeper services. Neither of these categories includes employees from establishments primarily engaged in furnishing telephone answering services, manufacturing equipment, or engineering and research services.

Table 5.1 and the associated graph show the annual average employment figures in the telephone communications industry separately for SIC 4812 and SIC 4813 from 1951 to 2003. Since 1990, employment in the telephone communications industry has grown modestly. Most of the growth in employment over this period is the result of substantial increases in the radiotelephone industry, which grew from 38,000 in 1990 to 206,000 in 2003.

BLS also calculates an annual telecommunications industry labor productivity index. The BLS index of labor productivity relates output to the employee hours expended in producing that output. This index, presented in Table 5.2, is available for the period 1951 to 2000. During this time period output per hour rose an average 6.0% per year. Data for the period 1987 to 2000 are particularly helpful for providing context for productivity growth in the telecommunications industry (SIC 481). Comparable data are available for 184 industries at the 3-digit level for these years. At 5.5%, the rate of growth in output per hour in the telecommunications industry exceeded that of 89% of the industries listed. This higher than average annual growth rate may be the result of telephone companies utilizing more efficient, advanced technology and increases in human capital. Table 5.2 and the associated graph illustrate the rising trend in telecommunications labor productivity since 1951.

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

Table 5.1
Annual Average Number of Employees
In the Telephone Communications Industry
(In Thousands)

Year	Radiotelephone	All Other Telephone	Year	Radiotelephone	All Other Telephone	Year	Radiotelephone	All Other Telephone
1951	15.2	628.8	1969	20.5	849.5	1987	21.1	880.8
1952	16.0	662.4	1970	22.2	919.9	1988	23.2	877.9
1953	16.6	685.6	1971	22.4	929.2	1989 ¹	29.9	856.0
1954	16.5	682.3	1972	22.5	933.6	1990	38.2	874.8
1955	16.6	690.1	1973	23.2	958.0	1991	45.6	863.6
1956	17.7	733.5	1974	23.6	977.2	1992	53.1	832.1
1957	18.1	750.1	1975	22.8	943.8	1993	63.1	815.9
1958	17.2	714.9	1976	22.5	930.7	1994	81.0	812.4
1959	16.7	690.4	1977	22.6	934.7	1995	102.5	797.2
1960	16.6	689.4	1978	23.4	971.4	1996	124.9	786.1
1961	16.3	677.0	1979	24.8	1,023.4	1997	150.7	820.3
1962	16.2	671.3	1980	25.3	1,046.9	1998	164.3	848.5
1963	16.2	669.3	1981	25.3	1,052.0	1999	182.7	896.0
1964	16.6	689.5	1982	25.3	1,046.5	2000	212.1	938.1
1965	17.3	717.9	1983 ¹	23.8	986.5	2001	228.0	966.0
1966	18.3	755.1	1984	22.4	931.0	2002	210.8	882.9
1967	19.0	787.5	1985	21.6	899.1	2003 ^p	205.7	826.3
1968	19.2	793.2	1986 ¹	20.7	862.7			

p - preliminary data for March 2003.

¹ Due to Bell operating company employee strikes in 1983, 1986, and 1989, which lasted one month each, the reported annual average number of workers for those particular years is an average of the eleven months in which workers did not strike.

Source: Bureau of Labor Statistics.

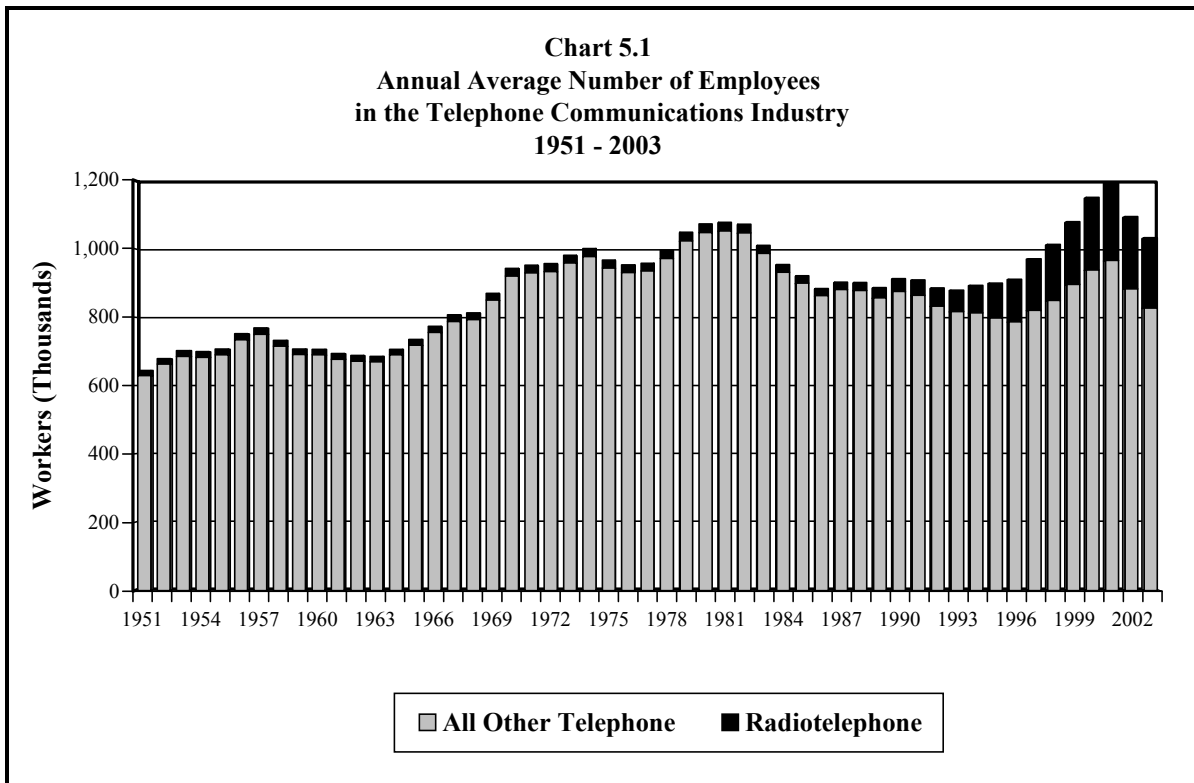


Table 5.2
Labor Productivity Index for the Telephone Communications
Industry Measured in Output per Hour (OPH)
(Base Year 1987=100)

Year	OPH Index	Year	OPH Index	Year	OPH Index
1951	12.0	1968	34.7	1985	88.9
1952	12.4	1969	35.3	1986	95.0
1953	12.6	1970	35.6	1987	100.0
1954	13.2	1971	38.3	1988	106.2
1955	14.3	1972	40.1	1989	111.6
1956	14.6	1973	42.7	1990	113.3
1957	16.1	1974	45.0	1991	119.8
1958	18.2	1975	49.3	1992	127.7
1959	20.3	1976	53.6	1993	135.5
1960	21.4	1977	57.3	1994	142.2
1961	23.3	1978	60.6	1995	148.1
1962	24.8	1979	63.5	1996	159.5
1963	26.6	1980	67.6	1997	160.9
1964	27.8	1981	71.1	1998	170.1
1965	28.9	1982	73.8	1999	186.3
1966	30.3	1983	84.6	2000	201.3
1967	32.6	1984	84.5		

Source: Bureau of Labor Statistics.

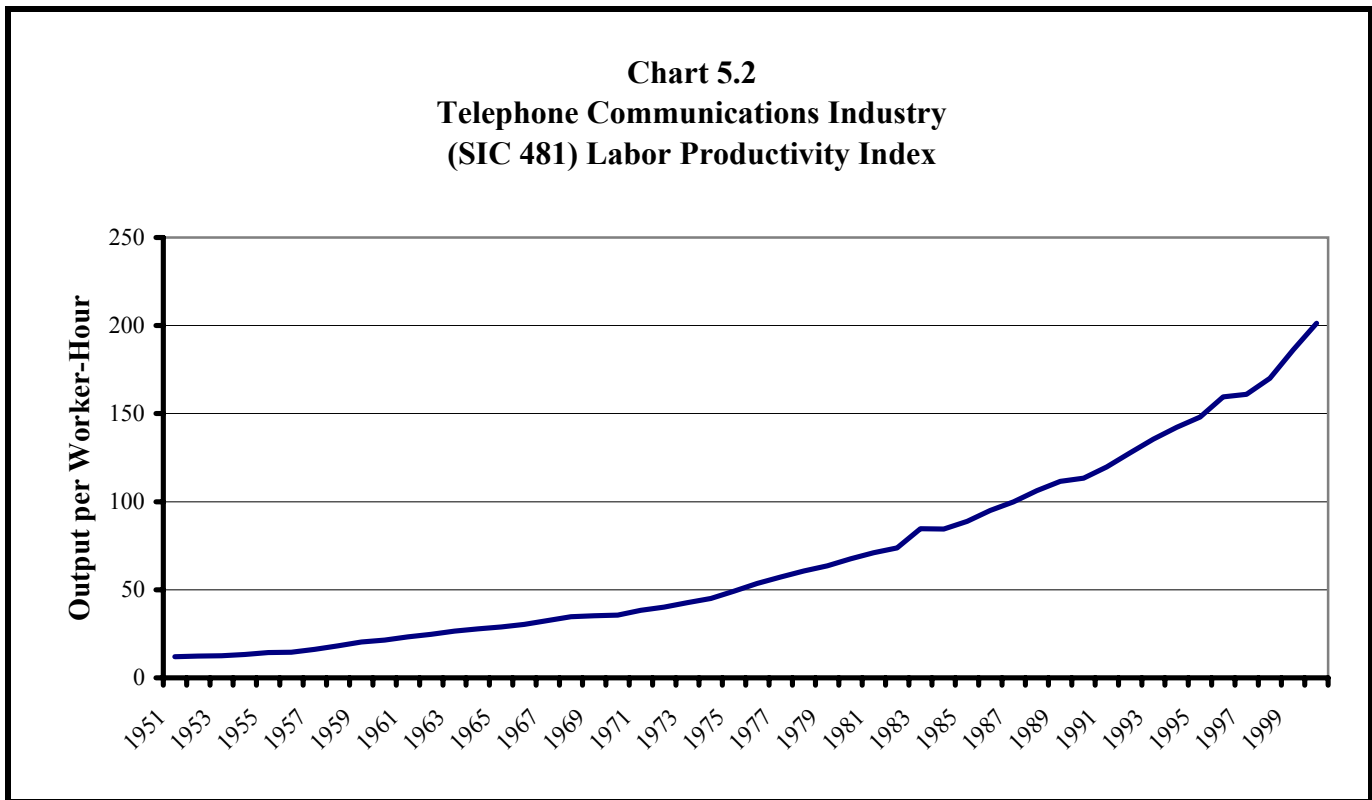


Table 5.3
Number of Telecommunications Service Providers That are Small Businesses
(As of December 31, 2001)

Type of Provider	Number of FCC Form 499-A Filers	Filers That in Combination with Affiliates Have	
		1500 or Fewer Employees ¹	More than 1500 Employees ¹
Incumbent Local Exchange Carriers (ILECs)	1,337	1,032	305
Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs)	609	458	151
Local Resellers	133	127	6
Shared-Tenant Service Providers	16	16	0
Other Local Service Providers	35	34	1
Total Local Competitors	793	635	158
Total Fixed Local Service Providers	2,130	1,667	463
Payphone Service Providers	761	757	4
Private Service Providers	14	14	0
Wireless Telephony Including Cellular, Personal Communications Service (PCS) and SMR Telephony Carriers	719	294	425
Paging & Messaging Service Providers	433	423	10
Specialized Mobile Radio (SMR) Dispatch	194	194	0
Wireless Data and Other Mobile Service Providers	41	34	7
Total Wireless Service Providers	1,387	945	442
Interexchange Carriers (IXCs)	261	223	38
Operator Service Providers (OSPs)	23	22	1
Prepaid Calling Card Providers	37	36	1
Satellite Service Providers	34	29	5
Toll Resellers	625	590	35
Other Toll Carriers	92	82	10
Total Toll Service Providers	1,072	982	90
All Filers	5,350	4,351	999

Note: While FCC Form 499-A filings are not publicly available, filer registration information is published by the Industry Analysis and Technology Division in the *Telecommunications Provider Locator*. This same information is searchable online at www.fcc.gov/wcb/iatd/locator.html.

¹ Estimates are based on gross revenue data filed April 1, 2002 on FCC Form 499-A worksheets, combined with public employment data from ARMIS and Securities and Exchange Commission filings. Filers were considered affiliated based on information from their Form 499-A filings. These estimates do not reflect affiliates that do not provide telecommunications service or that operate solely outside the United States.

Source: FCC Form 499-A filings and FCC 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, increased international trade and travel, and stable or declining international telephone rates -- has skyrocketed. The number of calls made from the United States to other countries increased from 200 million in 1980 to 6.3 billion in 2001. Americans spent about \$11.4 billion on international calls in 2001. On average, carriers billed 34 cents per minute for international calls in 2001, a decline of more than 74% since 1980. International private line revenues have also increased since 1980, but telex and telegraph services declined substantially over the same period. These trends are shown in Table 6.1.

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 \$3.3 billion in 2001. 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 Japan -- currently account for about 41% of the international calls billed in the United States.

Since 1985, when MCI began to compete with AT&T for international calls, numerous carriers have begun to provide international service. Fifty-three carriers provided international telecommunications service in 2001 by using their own facilities or lines leased from other carriers. These carriers provided \$10.8 billion of international telephone service between the U.S. and foreign points and \$1.4 billion of international private line service. Table 6.4 shows the U.S.-billed revenues for each of the 53 carriers. Together, AT&T, WorldCom now d/b/a MCI, and Sprint, accounted for 88% of the international service billed in the United States.

In addition to the 53 carriers that owned or leased facilities, 559 carriers reported the resale of international message telephone service. These carriers reported \$5.4 billion of resale revenues in 2001. 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			
	Minutes	Messages	Billed Revenues			Billed Revenues			
			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	11,386	0.34	1.82	10	*	1,419	199

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

* Denotes revenues less than \$500,000.

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: Industry Analysis Division, Common Carrier Bureau, *Trends in the International Telecommunications Industry* (April 2001). Data for 2000 from Industry Analysis Division, Common Carrier Bureau, *International Telecommunications Data* (December 2001). Data for 2001 from Industry Analysis and Technology Division, Wireline Competition Bureau, *International Telecommunications Data* (January 2003).

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

							Average per Minute		
	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/	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	11,386	4,526	6,860	1,181	(3,346)	8,040	0.14	0.09	0.17

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: Industry Analysis Division, Common Carrier Bureau, *Trends in the International Telecommunications Industry* (April 2001). Data for 2000 from Industry Analysis Division, Common Carrier Bureau, *International Telecommunications Data* (December 2001). Data for 2001 from Industry Analysis and Technology Division, Wireline Competition Bureau, *International Telecommunications Data* (January 2003).

Table 6.3
International Message Telephone Service for 2001
(Figures Rounded to the Nearest Million)

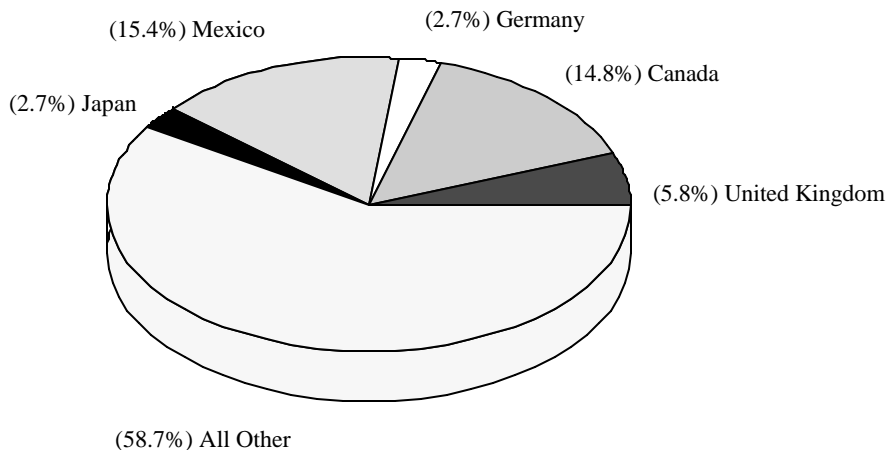
Region of the World 1/	Traffic Billed in the United States					Traffic Billed in Foreign Countries				Total U.S. Carrier Retained Revenues
	Number of Messages	Number of Minutes	U.S. Carrier Revenues	Owed to Foreign Carriers	Retained Revenues	Originating or Terminating in the United States		Transiting	Retained Revenues	
						Number of Messages	Number of Minutes			Due from Foreign Carriers
Africa	218	1,041	\$413	\$238	\$175	32	149	\$40	\$8	\$223
Asia	1,266	6,872	2,643	1,468	1,175	243	1,245	196	10	1,380
Caribbean	322	1,883	604	284	321	97	461	73	2	396
Eastern Europe	276	1,331	424	168	257	30	159	21	3	281
Middle East	200	934	437	183	255	68	377	40	4	298
North and Central America	1,908	11,340	2,869	1,182	1,687	1,704	7,079	467	7	2,161
Oceania	139	737	307	113	194	54	347	36	5	236
South America	446	2,623	797	419	379	115	570	93	8	480
Western Europe	1,485	6,488	2,332	460	1,872	597	3,078	150	15	2,037
Other Regions	1	2	8	8	1	*	*	*	(*)	1
Total for Foreign Points	6,244	33,155	10,824	4,504	6,320	2,925	13,357	1,109	62	7,490
Total for U.S. Points	<u>21</u>	<u>132</u>	<u>20</u>	<u>22</u>	<u>(1)</u>	<u>17</u>	<u>121</u>	<u>10</u>	<u>*</u>	<u>9</u>
Total for All International Points	6,265	33,287	\$10,844	\$4,526	\$6,318	2,942	13,478	\$1,118	\$62	\$7,499

* 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 6.1

U.S. Billed Minutes by Country



Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *2001 International Telecommunications Data* (January 2003).

Table 6.4
U.S. Billed Revenues of Facilities-Based and Facilities-Resale Carriers in 2001 1/
(Revenue Amounts Shown in Millions)

	International Service			Total International Billed Revenues
	Telephone	Private Line	Telex, Telegraph, and Other Miscellaneous	
ABS-CBN Telecom North America, Inc.	\$5			\$5
AM Telecom, LLC				
American Samoa Telecomm. Authority	2			2
American Tower Corporation		\$148		148
Americatel, Inc.	147			147
AnTel Telecom, Inc.		*		*
AT&T Corp. & Concert Global Ntwks. USA LLC	5,790	695	*	6,485
Bestel USA Inc.	34			34
Cable & Wireless USA, Inc.	70	9		79
Colt GmbH		1		1
Deutsche Telekom AG		4		4
Genuity Telecom Inc.		*		*
Geocomm Corporation		*		*
Global Crossing, Ltd.	3	30		32
GNG Networks America, Inc.		*		*
Harris Corporation/MCS	*			*
IDT Corporation	119			119
IMPSAT USA, Inc.		27		27
International Telnet, Inc.			*	*
IT&E Overseas, Inc.	10	3		13
Japan Telecom America, Inc.		23		23
KDD America, Inc.	10	11		22
KPN-INS, Inc.	30			30
Level 3 Communications, LLC		11		11
Local Communications Network, Inc.		4		4
Lockheed Martin Corporation		65		65
Medley International Teleport, Inc.			5	5
Melbourne International Comm., Ltd.	*	1		1
Metronet Communications		*		*
Norlight Telecommunications, Inc.		*		*
NTT America, Inc.		11		11
ONSEnet America, Inc.		2		2
Orbitel S.A. E.S.P.		1		1
PanAmSat Carrier Services, Inc.		*		*
Philippine Long Distance Telephone Co., Ltd.	17			17
Primus Telecommunications, Inc.	134			134
PSO, Inc. d/b/a Canal Uno			*	*
Qwest Communications International, Inc.		45		45
Satellite Communication Systems, Inc.	*	4		4
SBC Telecommunications, Inc.		12		12
SES Americom, Inc.		11		11
Sprint	1,386	67	180	1,633
StarHub, Inc.	*			*
Startec Global Communications Corporation	60			60
Telecom Argentina USA, Inc.	*			*
Telecom Italia North America, Inc.	8			8
Telecomunicaciones Ultramarinas-Puerto Rico		1		1
Telefonica Larga Distancia, Inc. (TLD)	8	*		8
Teleport of the Americas, Inc.			*	*
TRICOM USA, Inc.	65			65
V-SAT Telecom, Inc.		*		*
Verizon Communications, Inc.	71	3		74
Williams Communications, Inc.	*		8	8
WorldCom, Inc. now d/b/a MCI	2,876	272	10	3,158
Total All Carriers 2/	\$10,844	\$1,464	\$210	\$12,810 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 \$35 million of revenues reported for American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands. Also includes \$20 million of revenues for calls between the domestic United States and these points.

3/ Includes \$337 million of telephone, private line, and miscellaneous service revenues for 8 carriers that requested confidential treatment.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *2001 International Telecommunications Data* (January 2003).

**Table 6.5
Top Providers of Pure Resale International MTS in 2001**

	Number of Messages	Number of Minutes	U.S. Carrier Revenues	Percent of Total IMTS Resale Revenues
ACN Communication Services, Inc.	1,825,632	13,903,504	\$5,369,464	0.10 %
ALLTEL Corporation	2,083,850	15,233,715	5,826,402	0.10
Americatel, Inc.	119,706,384	919,056,266	119,814,592	2.15
Antel Telecom, Inc.	6,579,020	58,587,457	6,762,539	0.12
AT&T Corp.	144,315,539	1,173,583,672	1,282,750,651	23.05
Bell Canada Enterprises, Inc.	31,847,320	125,183,423	46,855,848	0.84
Broadwing Incorporated	232,168,031	1,100,244,681	129,313,782	2.32
Business Telecom, Inc. (BTI)	8,590,731	75,192,609	12,385,022	0.22
Cable & Wireless USA, Inc.	92,435,041	422,735,313	103,404,543	1.86
Cingular Wireless	48,780,638	148,908,068	256,803,588	4.61
Covista, Inc.	7,451,048	24,281,142	4,430,359	0.08
Deutsche Telekom AG d.b.a. T-Mobile USA	3,840,869	21,252,405	12,063,009	0.22
EasyLink Services Corporation	6,714,781	9,058,176	4,662,324	0.08
Elephant Talk, Inc.	4,701,325	70,519,881	10,710,427	0.19
Empire One Telecommunications, Inc.	3,467,322	28,411,945	5,403,846	0.10
Focal Communications Corporation	3,755,989	21,375,836	5,465,422	0.10
Global Crossing, Ltd	104,812,497	433,723,266	338,104,995	6.07
Heritage Communications Corporation	45,586,785	430,572,302	37,600,722	0.68
IDS Telcom, LLC	3,861,683	17,818,918	4,506,730	0.08
IDT Corporation	785,741,717	7,603,772,937	952,480,405	17.11
I-Link, Inc.	13,820,704	150,812,162	32,073,914	0.58
Intellicall Operator Services, Inc.	13,324,552	133,245,520	16,655,690	0.30
Intellicall Operator Services, Inc. d/b/a ILD	8,931,499	118,239,490	19,071,938	0.34
Lightyear Communications, Inc.	10,308,749	32,812,152	8,422,710	0.15
Long Distance of Michigan, Inc. d/b/a LDMI & Fonetel	3,863,273	33,336,834	10,302,932	0.19
McLeodUSA Telecommunications Services, Inc.	71,043,812	266,596,652	38,431,235	0.69
Mpower Communications Corporation	1,813,190	5,439,569	4,177,314	0.08
Network Communications International Corporation	383,749	2,722,626	14,534,255	0.26
NOS Communications, Inc.	2,135,119	15,267,492	4,304,577	0.08
PaeTec Communications, Inc.	7,306,880	25,670,877	5,567,621	0.10
Primus Telecommunications, Inc.	59,136,613	202,518,601	13,824,516	0.25
Qwest Communications International, Inc.	93,775,111	609,540,002	152,203,832	2.73
RSL COM U.S.A., Inc.	136,975,857	722,034,414	88,524,359	1.59
SBC Communications, Inc.	16,915,381	129,768,660	57,472,407	1.03
Sprint Corporation	110,098,596	567,570,336	146,381,204	2.63
Sprint PCS	9,453,853	50,419,403	28,787,634	0.52
Startec Global Communications Corp.	56,161,433	378,562,427	72,000,682	1.29
Talk America Inc.	64,152,315	453,142,969	26,863,417	0.48
TeleDirect Telecommunications Group, LLC	19,933,965	108,294,945	26,107,000	0.47
Telenational Communication, Inc. d/b/a Worldport	4,218,807	42,188,072	5,273,509	0.09
Telstar International, Inc.	31,963,374	318,669,847	64,950,978	1.17
UniPlex Telecom Technologies, Inc.	7,260,180	49,732,233	9,967,121	0.18
VarTec Telecom, Inc.	23,870,955	265,964,939	71,742,296	1.29
Verizon Wireless	39,944,292	187,738,171	42,112,041	0.76
Verizon (incl. Verizon LD, PRTC, Pacifica & Enterprise)	57,750,642	439,114,099	253,635,128	4.56
Williams Communications, Inc.	56,818,838	407,369,824	54,565,336	0.98
Working Assets Funding Services, Inc.	3,369,836	29,208,702	15,214,721	0.27
WorldCom, Inc. now d/b/a MCI	191,013,658	933,491,068	225,438,093	4.05
XO Communications, Inc.	17,993,285	81,062,435	20,287,174	0.36
Z-Tel Communications, Inc.	10,489,787	104,897,871	13,112,234	0.24
Total for 509 Companies Not Shown Above 1/	1,002,576,664	4,885,408,169	678,869,964	12.20
Total for all Reporting Carriers	3,805,071,171	24,464,256,077	\$5,565,590,502	100.00 %

1/ Data are consolidated for affiliated carriers. A total of 559 companies made a total of 630 filings.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *2001 International Telecommunications Data* (January 2003).

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. Line growth over time, averaging about 3% per year, has historically reflected growth in the population and the economy. The number of lines, however, has declined since 2000 because of the recession, because some consumers are substituting wireless service for wireline service, and because some households are 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 lines for both ILECs and 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 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 local exchange carriers. 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).

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. Table 7.3 shows the number of loops by holding companies.

Table 7.4 compares the number of residential local loops with the number of households with telephone service. The difference between these series is an approximate measure of the number of additional residential access lines. Table 7.4 shows that the percentage of additional lines for households with telephone service has increased dramatically, from about 3% in 1988 to about 25% in 2001.

Tables 7.5 and 7.6 display payphone line information. Long distance carriers are required to pay payphone owners \$0.24 for every completed dial-around call (calls where the consumer chooses the long distance carrier over the payphone's presubscribed long distance carrier).¹ 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 supplies the FCC with data that allow the number of payphones in each state to be calculated.

¹ See *Third Report and Order and Order on Reconsideration of the 2nd Report and Order*, CC Docket 96-128, adopted Jan. 28, 1999.

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 2002 and 2003. 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).

Table 7.1
U.S. Wireline Telephone Lines

Year End	FCC Form 477	Annual Growth (%)	ILEC Local Loops	Annual Growth (%)	ILEC Access Lines	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		185,002,992	2.9	186,594,497	3.4
2000	192,512,938	1.6 %	188,501,344	1.9	187,581,092	0.5
2001	191,697,023	-0.4	185,588,578	-1.5	179,811,283	-4.1
2002	187,508,810	-2.2	NA	NA	169,913,443 ¹	-5.5

NA - Not Available.

¹ Data for 2002 are preliminary from annual ARMIS (Automated Reporting Management Information System) 43-08 filings, April 1, 2003, adjusted using the 2001 adjustment factor.

Source: FCC Form 477: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2002* (June 2003).
Local loops: National Exchange Carrier Association.
Access Lines: 1984-2001: Industry Analysis and Technology Division, Wireline Competition Bureau, *Statistics of Communications Common Carriers*, 2001/2002 edition (September 2002), 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, 2001)

	Study Areas	Price Cap		Non-Price Cap		Total Loops
		Bell Company Loops ¹	Other Company Loops	Average Schedule Company Loops	Other Company Loops	
Alabama	28	2,260,366	25,944	41,011	170,303	2,497,624
Alaska	24	0	0	246	460,948	461,194
American Samoa	1	0	0	0	10,325	10,325
Arizona	17	2,881,752	172,665	0	40,732	3,095,149
Arkansas	28	1,037,211	0	25,557	446,565	1,509,333
California	22	23,013,488	153,138	0	219,065	23,385,691
Colorado	28	2,812,527	0	1,092	134,847	2,948,466
Connecticut	2	2,381,200	0	25,504	0	2,406,704
Delaware	1	589,979	0	0	0	589,979
District of Columbia	1	919,587	0	0	0	919,587
Florida	12	9,027,643	2,093,652	0	196,638	11,317,933
Georgia	36	4,225,392	2,769	69,120	851,036	5,148,317
Guam	1	0	0	0	74,006	74,006
Hawaii	2	720,374	0	0	859	721,233
Idaho	21	692,507	21,575	1,729	47,175	762,986
Illinois	57	7,609,540	130,126	39,796	233,408	8,012,870
Indiana	42	3,358,983	273,994	88,333	82,324	3,803,634
Iowa	153	1,107,337	346,722	205,887	44,839	1,704,785
Kansas	39	1,390,959	143,539	767	131,365	1,666,630
Kentucky	19	1,805,685	199,582	90,340	111,134	2,206,741
Louisiana	20	2,377,949	0	1,665	195,426	2,575,040
Maine	20	731,657	0	38,630	113,683	883,970
Maryland	2	3,932,175	0	0	8,440	3,940,615
Massachusetts	3	4,406,165	0	0	4,229	4,410,394
Michigan	39	5,910,478	25,881	30,137	182,869	6,149,365
Minnesota	88	2,279,543	435,280	251,527	169,927	3,136,277
Mississippi	19	1,345,229	0	11,041	86,945	1,443,215
Missouri	44	3,033,011	264,428	16,593	316,106	3,630,138
Montana	18	374,971	8,381	4,384	166,059	553,795
Nebraska	41	473,127	370,049	21,136	91,645	955,957
Nevada	14	426,320	889,811	0	33,342	1,349,473
New Hampshire	10	795,753	0	2,362	57,288	855,403
New Jersey	3	6,681,455	230,777	0	11,178	6,923,410
New Mexico	16	854,785	104,083	0	45,125	1,003,993
New York	44	11,857,572	924,051	22,332	272,603	13,076,558
North Carolina	26	2,892,176	1,455,052	266,743	492,748	5,106,719
North Dakota	24	211,961	16,202	64,393	99,728	392,284
Northern Mariana Islands	1	21,521	0	0	0	21,521
Ohio	42	5,133,605	1,383,541	67,231	469,273	7,053,650
Oklahoma	39	1,663,280	124,517	4,032	243,967	2,035,796
Oregon	33	1,918,643	91,490	12,527	148,354	2,171,014
Pennsylvania	36	6,970,719	444,212	624,537	261,940	8,301,408
Puerto Rico	2	1,333,656	0	0	0	1,333,656
Rhode Island	1	641,977	0	0	0	641,977
South Carolina	27	1,720,475	102,686	61,278	482,073	2,366,512
South Dakota	30	257,651	0	77,327	75,251	410,229
Tennessee	25	2,673,375	343,500	127,048	242,030	3,385,953
Texas	58	11,844,985	749,175	10,582	587,319	13,192,061
Utah	13	1,076,872	23,309	8,164	64,098	1,172,443
Vermont	10	360,161	0	4,638	61,229	426,028
Virgin Islands	1	0	0	0	69,073	69,073
Virginia	21	4,226,700	411,542	94,376	27,684	4,760,302
Washington	23	3,378,958	87,674	4,521	271,902	3,743,055
West Virginia	10	862,638	156,717	2,707	13,823	1,035,885
Wisconsin	90	2,614,546	58,472	228,763	623,663	3,525,444
Wyoming	10	261,260	7,153	0	44,365	312,778
Total	1,437	161,379,879	12,271,689	2,648,056	9,288,954	185,588,578

¹ Includes loops formerly owned by GTE and Southern New England Telephone. SBC of Connecticut has 25,504 average schedule company loops that are not included in this total.

Source: NECA universal service filings.

Table 7.3
Telephone Loops of Incumbent Local Exchange Carriers by Holding Company ¹
(As of December 31, 2001)

Holding Companies	Loops	Percent of Loops
Verizon Communications, Inc.	61,154,853	32.95 %
SBC Communications, Inc.	58,628,735	31.59
BellSouth Telecommunications, Inc	24,547,566	13.23
Qwest Communications International, Inc.	17,074,229	9.20
Sprint Corporation	7,873,085	4.24
Citizens Communications Company	2,361,685	1.27
ALLTEL Corporator	2,354,679	1.27
CenturyTel, Inc.	1,770,100	0.95
Broadwing, Inc.	954,146	0.51
TDS Telecommunications Corporator	693,162	0.37
Valor Telecommunications, LLC	569,987	0.31
C-TEC Corporation	332,084	0.18
Alaska Communications System	327,209	0.18
Iowa Network Service, Inc	286,516	0.15
FairPoint Communications, Inc.	246,498	0.13
Madison River Telephone Company	192,566	0.10
TXU Communications Telephone Company	169,753	0.09
D & E Communications, Inc.	150,136	0.08
North State Telecommunications Corporator	137,791	0.07
Roseville Telephone Company	132,728	0.07
Rock Hill Telephone Company	131,019	0.07
The Concord Telephone Company	124,832	0.07
Horry Telephone Cooperativ	97,798	0.05
McLeodUSA Telecommunications Services, Inc	85,703	0.05
North Pittsburgh Telephone Company	81,623	0.04
Hargray Communications Group, Inc	75,565	0.04
Guam Telephone Authority	74,006	0.04
Virgin Islands Telephone Corporator	69,073	0.04
Hickory Tech Corporator	68,719	0.04
Matanuska Telephone Association	60,131	0.03
Farmers Telephone Cooperative, Inc	59,905	0.03
Pioneer Telephone Cooperative, Inc	56,569	0.03
Lynch Interactive Corporator	55,736	0.03
Ntelos, Inc.	51,692	0.03
SRT Service Corporator	48,609	0.03
Atlantic Telephone Membership Corporator	42,833	0.02
East Ascension Telephone Company, Inc	41,863	0.02
Guadalupe Valley Telephone Cooperativ	40,595	0.02
Twin Lake Telephone Cooperativ	38,824	0.02
Skyline Telephone Membership Corporator	37,887	0.02
Ben Lomand Rural Telephone Cooperative, Inc	37,464	0.02
The Chillicothe Telephone Company	37,201	0.02
CEA Capital	36,886	0.02
Telephone Electronics Corporator	35,633	0.02
Golden West Telecommunications	35,249	0.02
Smithville Telephone Company, Inc	34,707	0.02
Eastex Telephone Cooperative, Inc	33,985	0.02
Great Plains Communications, Inc.	33,284	0.02
Lexington Communications	33,107	0.02
Yadkin Valley Telephone Co	32,663	0.02
Wood County Telephone Company	30,710	0.02
All Other Companies	3,907,199	2.11
Total	185,588,578	100.00 %

¹ Includes incumbent local exchange carriers' loops for holding companies with more than 30,000 loops.

Source: NECA universal service filings.

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

Year	Loops ¹			Households with Telephone Service ²	Additional Residential Lines	Percentage of Additional Lines for Households with Telephones
	Residential	Non-Residential	Total Loops			
1988	87.7	38.5	126.2	85.4	2.3	2.7 %
1989	90.0	40.6	130.6	87.4	2.6	3.0
1990	92.2	42.9	135.1	88.4	3.9	4.4
1991	95.9	42.5	138.4	89.4	6.5	7.3
1992	99.3	43.0	142.3	91.0	8.3	9.1
1993	101.8	45.2	147.0	93.0	8.8	9.4
1994	105.1	47.2	152.3	93.7	11.4	12.2
1995	108.1	50.4	158.5	94.2	13.9	14.7
1996	111.1	54.3	165.4	95.1	16.0	16.8
1997	114.7	58.2	172.9	96.5	18.2	18.9
1998	117.1	62.6	179.8	98.0	19.1	19.5
1999	122.7	63.5	186.2	99.1	23.6	23.8
2000	126.4	65.8	192.2	100.2	26.2	26.2
2001	127.3	62.9	190.2	102.2	25.1	24.6

¹ Total loops are from the Universal Service Fund subscriber line counts provided by the National Exchange Carrier Association. Guam, the Northern Mariana Islands, Puerto Rico, American Samoa, and the U.S. Virgin Islands totals have been removed. Total loops have been 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*, (September 2002). Those totals also exclude Puerto Rico, but cover only the carriers that file ARMIS reports (of which there are none for 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 (ALTS) and the report by Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of June 30, 2002* (December 2002).

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

Source: FCC staff estimates.

Table 7.5
Number of Payphones Owned by LECs and Independent Operators
(As of March 31, 2002)

State	RBOC Territories		All Other LEC Territories		Total LEC Owned	Total Independent	Grand Total
	LEC Owned	Independent	LEC Owned	Independent			
Alabama	10,413	7,173	403	1,120	10,816	8,293	19,109
Alaska	0	0	828	2,997	828	2,997	3,825
Arizona	15,326	11,959	7	2,470	15,333	14,429	29,762
Arkansas	8,358	1,423	1,799	1,485	10,157	2,908	13,065
California	128,105	95,293	502	2,462	128,607	97,755	226,362
Colorado	14,701	8,301	279	763	14,980	9,064	24,044
Connecticut	291	36	16,594	4,158	16,885	4,194	21,079
Delaware	4,077	882	0	0	4,077	882	4,959
District of Columbia	6,565	1,574	0	0	6,565	1,574	8,139
Florida	30,992	43,440	7,294	8,813	38,286	52,253	90,539
Georgia	21,511	18,361	3,774	3,889	25,285	22,250	47,535
Hawaii	6,502	995	0	0	6,502	995	7,497
Idaho	3,349	1,791	163	335	3,512	2,126	5,638
Illinois	52,771	26,274	1,086	1,899	53,857	28,173	82,030
Indiana	23,543	6,940	1,951	1,213	25,494	8,153	33,647
Iowa	6,097	2,167	804	1,055	6,901	3,222	10,123
Kansas	8,888	2,173	761	922	9,649	3,095	12,744
Kentucky	7,451	7,784	267	3,419	7,718	11,203	18,921
Louisiana	10,458	11,090	210	1,235	10,668	12,325	22,993
Maine	5,515	637	91	335	5,606	972	6,578
Maryland	27,691	8,635	35	7	27,726	8,642	36,368
Massachusetts	35,459	11,089	6	18	35,465	11,107	46,572
Michigan	38,982	17,567	760	777	39,742	18,344	58,086
Minnesota	10,972	4,497	2,407	1,504	13,379	6,001	19,380
Mississippi	8,549	4,717	115	393	8,664	5,110	13,774
Missouri	17,293	5,199	3,771	3,365	21,064	8,564	29,628
Montana	2,570	1,387	503	890	3,073	2,277	5,350
Nebraska	3,073	1,601	3,393	879	6,466	2,480	8,946
Nevada	3,206	1,475	1,606	9,563	4,812	11,038	15,850
New Hampshire	5,485	1,470	108	161	5,593	1,631	7,224
New Jersey	61,042	19,256	1,725	285	62,767	19,541	82,308
New Mexico	5,574	3,106	281	1,041	5,855	4,147	10,002
New York	96,955	56,051	6,872	4,815	103,827	60,866	164,693
North Carolina	11,045	11,128	6,979	10,326	18,024	21,454	39,478
North Dakota	596	678	60	631	656	1,309	1,965
Ohio	35,752	9,961	5,559	9,241	41,311	19,202	60,513
Oklahoma	12,511	4,050	1,599	1,074	14,110	5,124	19,234
Oregon	10,131	6,262	608	1,564	10,739	7,826	18,565
Pennsylvania	47,825	19,015	6,193	3,571	54,018	22,586	76,604
Rhode Island	4,754	3,107	0	0	4,754	3,107	7,861
South Carolina	8,939	9,007	1,786	2,973	10,725	11,980	22,705
South Dakota	2,177	680	499	156	2,676	836	3,512
Tennessee	11,842	11,339	1,881	2,840	13,723	14,179	27,902
Texas	56,383	39,398	7,194	13,029	63,577	52,427	116,004
Utah	6,705	2,360	0	561	6,705	2,921	9,626
Vermont	2,676	328	46	238	2,722	566	3,288
Virginia	26,975	14,326	2,441	1,734	29,416	16,060	45,476
Washington	18,971	8,677	611	1,925	19,582	10,602	30,184
West Virginia	7,145	1,300	54	1,241	7,199	2,541	9,740
Wisconsin	16,472	5,018	1,487	5,105	17,959	10,123	28,082
Wyoming	2,336	824	247	145	2,583	969	3,552
Totals	964,999	531,801	95,639	118,622	1,060,638	650,423	1,711,061

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

Table 7.5
Number of Payphones Owned by LECs and Independent Operators - Continued
(As of March 31, 2003)

State	RBOC Territories		All Other LEC Territories		Total LEC Owned	Total Independent	Grand Total
	LEC Owned	Independent	LEC Owned	Independent			
Alabama	7,176	5,929	1,295	1,955	8,471	7,884	16,355
Alaska	0	0	1,134	2,675	1,134	2,675	3,809
Arizona	14,227	10,555	65	2,332	14,292	12,887	27,179
Arkansas	7,880	1,259	1,920	1,134	9,800	2,393	12,193
California	109,551	90,363	853	5,505	110,404	95,868	206,272
Colorado	14,239	7,466	243	647	14,482	8,113	22,595
Connecticut	15,714	32	111	3,312	15,825	3,344	19,169
Delaware	3,324	885	0	0	3,324	885	4,209
District of Columbia	5,450	439	0	0	5,450	439	5,889
Florida	25,719	35,139	6,572	7,645	32,291	42,784	75,075
Georgia	17,508	16,674	3,279	3,657	20,787	20,331	41,118
Hawaii	6,014	889	0	0	6,014	889	6,903
Idaho	2,969	1,589	153	278	3,122	1,867	4,989
Illinois	47,951	22,035	1,010	1,664	48,961	23,699	72,660
Indiana	21,623	6,657	1,882	1,140	23,505	7,797	31,302
Iowa	5,775	1,997	603	1,208	6,378	3,205	9,583
Kansas	8,162	1,988	630	729	8,792	2,717	11,509
Kentucky	4,577	5,238	2,806	4,224	7,383	9,462	16,845
Louisiana	8,748	8,869	306	1,100	9,054	9,969	19,023
Maine	4,301	644	104	385	4,405	1,029	5,434
Maryland	23,843	1,227	0	9	23,843	1,236	25,079
Massachusetts	26,707	10,410	5	6	26,712	10,416	37,128
Michigan	35,227	16,518	709	743	35,936	17,261	53,197
Minnesota	10,296	3,988	1,708	1,848	12,004	5,836	17,840
Mississippi	6,786	4,504	93	136	6,879	4,640	11,519
Missouri	15,623	4,749	3,255	3,135	18,878	7,884	26,762
Montana	2,470	1,127	331	574	2,801	1,701	4,502
Nebraska	3,353	907	3,274	771	6,627	1,678	8,305
Nevada	2,719	1,375	1,413	9,261	4,132	10,636	14,768
New Hampshire	4,530	1,250	134	54	4,664	1,304	5,968
New Jersey	45,783	17,264	1,527	229	47,310	17,493	64,803
New Mexico	5,374	2,615	265	940	5,639	3,555	9,194
New York	89,377	47,115	5,748	5,146	95,125	52,261	147,386
North Carolina	9,023	9,273	6,561	8,717	15,584	17,990	33,574
North Dakota	567	443	143	453	710	896	1,606
Ohio	32,992	9,131	7,180	6,093	40,172	15,224	55,396
Oklahoma	11,657	3,890	1,502	828	13,159	4,718	17,877
Oregon	9,304	5,738	771	935	10,075	6,673	16,748
Pennsylvania	37,316	18,326	5,600	3,146	42,916	21,472	64,388
Rhode Island	3,782	2,849	0	0	3,782	2,849	6,631
South Carolina	6,826	8,807	1,652	2,560	8,478	11,367	19,845
South Dakota	2,049	608	510	394	2,559	1,002	3,561
Tennessee	9,852	10,512	1,901	2,273	11,753	12,785	24,538
Texas	56,061	40,275	2,161	5,442	58,222	45,717	103,939
Utah	6,128	2,222	49	656	6,177	2,878	9,055
Vermont	2,147	306	46	220	2,193	526	2,719
Virginia	23,789	6,973	2,180	1,563	25,969	8,536	34,505
Washington	17,157	7,937	594	1,527	17,751	9,464	27,215
West Virginia	5,974	114	64	1,116	6,038	1,230	7,268
Wisconsin	14,489	4,686	3,317	2,678	17,806	7,364	25,170
Wyoming	2,186	693	226	84	2,412	777	3,189
Totals	854,295	464,479	75,885	101,127	930,180	565,606	1,495,786

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 LEC Owned	Total Independent	Grand Total
	LEC Owned	Independent	Total	LEC Owned	Independent	Total			
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

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 calling 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 element (UNE) loops to use in combination with the CLECs' own switching capabilities, or by leasing the UNE-platform that combines the ILEC loop with ILEC switching services. 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 shows that CLECs provided 24.8 million (or 13.2%) of the approximately 188 million nationwide switched access lines in service to end-user customers at the end of December 2002, according to information reported on FCC Form 477. This represents a 14% growth of CLEC market size during the second half of 2002. Table 8.2 shows that about 42% of these CLEC lines served medium and large business, institutional, and government customers. By contrast, 22% of reported ILEC switched access lines served such customers.

Table 8.3 shows that CLECs report providing about one-fourth of their switched access lines over their own local loop facilities. In the course of the semi-annual data collections, the percentage of these lines provisioned by reselling services has declined steadily (to 19% at the end of December 2002) and the percentage provisioned over acquired UNE loops, both stand-alone and with switching, has grown (to 55%). 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.

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 December 2002. 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 local telephone service revenues by about 17% from 2001 to 2002 – from \$14.8 billion to \$17.8 billion. The share of nationwide local telephone service revenues claimed by the competitors increased from 11.8% in 2001 to 14.7% in 2002. The 2002 revenues are preliminary based on FCC Form 499-Q quarterly filings.

3. Ported Telephone Numbers

Table 8.8 presents information on telephone numbers “ported” (transferred) from one telephone switch to another (usually between carriers). Telephone numbers are transferred between local switches for a variety of reasons. Most ported telephone numbers are ported because the end users changed local telephone carriers and retained their telephone number(s). Such quantities appear in the first set of columns in Table 8.8.

Other telephone numbers are ported from one carrier to another as part of a telephone-number conservation measure known as number pooling, which is where carriers with spare telephone numbers port large blocks of numbers to a carrier in need of numbers. Not all numbers within a block are transferred to the recipient carrier, however. Those numbers that will remain with the “donor” carrier are first ported from that donor carrier to itself as a prepooling measure, which ensures that the “donor” carrier retains those numbers. Carriers may also port numbers among their switches to use numbers more effectively. Numbers that carriers port to themselves appear in the second set of columns of Table 8.8. Quantities of telephone numbers that have been ported to another carrier for pooling reasons are in the third set of columns of Table 8.8.

Over 21.4 million telephone numbers were transferred due to customers changing carriers as of December 31, 2002. Most, but not all of those numbers, were ported from ILECs to CLECs, but some of them were ported from CLECs to ILECs, and others from CLECs to CLECs. In all, as of December 31, 2002, over 39.8 million telephone numbers had been transferred.

This information is developed from the telephone number porting database, managed by the Local Number Portability Administrator (currently NeuStar, Inc.). The database contains all telephone numbers that are ported at that point in time. (In order to protect consumer privacy, the Commission receives the information in such a way that prevents it from determining if a particular telephone number has been ported or not.) If a telephone number is ported a second time, the database contains only the information from the most recent port. Periodic “snapshots” of the database are taken, which allow the Commission to determine the number of telephone

numbers that have been ported, the reason those numbers were ported, and the date that the telephone-number record in the database was created.

For most telephone-number records, the date reflects the date that the telephone number was most recently ported. Some records, however, have been affected by area-code changes, so the date reflects not the porting date, but the date the telephone-number record was updated to account for the area code change. Although not perfect, sequential snapshots of the database should help quantify both the number of customer lines served by competitive local telephone carriers over time, and telephone number churn.

Table 8.9 shows the quantity of telephone numbers in the database at the end of each quarter, from the second quarter of 1999 (when the FCC first began receiving the data) through the fourth quarter of 2002.

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	162,742,937	24,765,873	187,508,810	13.2

Table 8.2
End-User Switched Access Lines by Customer Type

Date	Reporting ILECs			Reporting CLECs		
	Residential & Small Businesses	Other ¹	% Residential & Small Businesses	Residential & Small Businesses	Other ¹	% Residential & Small Businesses
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	127,008,159	35,734,778	78.0	14,361,191	10,404,682	58.0

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

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2002* (June 2003).

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	24,766	4,662	18.8	13,709	55.4	6,396	25.8

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

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

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

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2002* (June 2003).

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 without Switching	UNEs with Switching	Total UNEs	Total UNEs and Resold Lines	Percent of Total Lines
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	187,208	174,861	4,424	3,162	4,761	7,923	12,347	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	179,971	162,743	2,744	4,259	10,225	14,484	17,228	9.6

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

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

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2002* (June 2003).

Table 8.5
End-User Switched Access Lines Served By Reporting Local Exchange Carriers
(As of December 31, 2002)

State	ILECs	CLECs	Total	CLEC Share
Alabama	2,238,352	187,320	2,425,672	8 %
Alaska	466,880	*	*	*
Arizona	2,878,210	400,080	3,278,290	12
Arkansas	1,257,291	144,411	1,401,702	10
California	21,475,881	2,698,705	24,174,586	11
Colorado	2,642,166	482,014	3,124,180	15
Connecticut	2,263,446	236,462	2,499,908	9
Delaware	525,447	*	*	*
District of Columbia	831,920	160,174	992,094	16
Florida	10,406,129	1,495,132	11,901,261	13
Georgia	4,423,324	780,970	5,204,294	15
Hawaii	723,111	*	*	*
Idaho	700,089	*	*	*
Illinois	6,994,127	1,602,482	8,596,609	19
Indiana	3,459,873	284,532	3,744,405	8
Iowa	1,329,633	201,176	1,530,809	13
Kansas	1,236,051	258,312	1,494,363	17
Kentucky	2,100,313	92,483	2,192,796	4
Louisiana	2,353,620	188,652	2,542,272	7
Maine	750,749	*	*	*
Maryland	3,502,515	285,416	3,787,931	8
Massachusetts	3,750,998	750,473	4,501,471	17
Michigan	5,174,471	1,362,217	6,536,688	21
Minnesota	2,708,221	572,708	3,280,929	17
Mississippi	1,277,168	74,410	1,351,578	6
Missouri	3,145,872	336,895	3,482,767	10
Montana	509,979	*	*	*
Nebraska	828,394	177,698	1,006,092	18
Nevada	1,348,042	163,520	1,511,562	11
New Hampshire	723,653	125,893	849,546	15
New Jersey	5,883,106	697,176	6,580,282	11
New Mexico	965,816	*	*	*
New York	9,646,157	3,175,265	12,821,422	25
North Carolina	4,824,385	405,853	5,230,238	8
North Dakota	293,639	*	*	*
Ohio	6,405,570	652,104	7,057,674	9
Oklahoma	1,726,359	207,798	1,934,157	11
Oregon	1,955,544	183,319	2,138,863	9
Pennsylvania	7,167,204	1,405,894	8,573,098	16
Puerto Rico	1,276,493	*	*	*
Rhode Island	526,143	145,202	671,345	22
South Carolina	2,210,548	161,121	2,371,669	7
South Dakota	309,173	*	*	*
Tennessee	3,147,556	326,663	3,474,219	9
Texas	10,766,127	2,182,929	12,949,056	17
Utah	1,075,061	194,352	1,269,413	15
Vermont	383,758	*	*	*
Virgin Islands	71,894	0	71,894	0
Virginia	4,262,823	639,330	4,902,153	13
Washington	3,553,994	406,750	3,960,744	10
West Virginia	950,564	*	*	*
Wisconsin	3,063,426	477,915	3,541,341	13
Wyoming	251,672	*	*	*
Nationwide	162,742,937	24,765,873	187,508,810	13 %

Notes: Carriers with under 10,000 lines in a state were not required to report. Some data have been revised.

* Data withheld to maintain firm confidentiality.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2002* (June 2003).

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

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

Notes: Carriers with under 10,000 lines in a state were not required to report. Some data for December 2002 have been revised.

* Data withheld to maintain firm confidentiality.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2002* (June 2003).

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	Preliminary 2002
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	1,337
CAPs & CLECs	20	30	57	94	129	212	298	479	511	609
Local Resellers, Shared Tenant, Private Carriers, & Other Local	NA	NA	NA	25	18	64	96	128	158	198
All Other Carriers Reporting										
<u>Local Exchange Service Revenues</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>74</u>	<u>109</u>	<u>133</u>	<u>143</u>	<u>229</u>	<u>168</u>	<u>NA</u>
Total 2/	1,301	1,377	1,404	1,569	1,666	1,757	1,878	2,194	2,198	NA
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	\$90,413
<u>Other Incumbent LECs 4/</u>	<u>20,894</u>	<u>22,507</u>	<u>24,269</u>	<u>24,899</u>	<u>24,960</u>	<u>26,989</u>	<u>26,084</u>	<u>15,166</u>	<u>17,490</u>	<u>13,277</u>
Total 5/	79,732	83,922	89,754	95,189	92,988	96,790	102,670	108,301	110,879	103,690
Local Service Competitors										
CAPs & CLECs	174	269	595	949	1,556	2,393	4,505	7,552	10,629	13,570
Local Resellers, Shared Tenant, Private Carriers, & Other Local	NA	NA	NA	NA	224	329	522	914	1,395	1,492
All Other Filers (Local Exchange Service Revenues Only) 5/	<u>46</u>	<u>32</u>	<u>56</u>	<u>59</u>	<u>381</u>	<u>809</u>	<u>1,319</u>	<u>2,028</u>	<u>2,796</u>	<u>2,750</u>
Total	220	301	651	1,008	2,161	3,530	6,347	10,494	14,820	17,812
Total	\$79,952	\$84,224	\$90,405	\$96,197	\$95,149	\$100,320	\$109,016	\$118,795	\$125,698	\$121,502
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%	74.4%
<u>Other Incumbent LECs</u>	<u>26.1%</u>	<u>26.7%</u>	<u>26.8%</u>	<u>25.9%</u>	<u>26.2%</u>	<u>26.9%</u>	<u>23.9%</u>	<u>12.8%</u>	<u>13.9%</u>	<u>10.9%</u>
Total	99.7%	99.6%	99.3%	99.0%	97.7%	96.5%	94.2%	91.2%	88.2%	85.3%
Local Service Competitors										
CAPs & CLECs	0.2%	0.3%	0.7%	1.0%	1.6%	2.4%	4.1%	6.4%	8.5%	11.2%
Local Resellers, Shared Tenant, Private Carriers, & Other Local Providers	NA	NA	NA	NA	0.2%	0.3%	0.5%	0.8%	1.1%	1.2%
<u>All Other Filers</u>	<u>0.1%</u>	<u>0.0%</u>	<u>0.1%</u>	<u>0.1%</u>	<u>0.4%</u>	<u>0.8%</u>	<u>1.2%</u>	<u>1.7%</u>	<u>2.2%</u>	<u>2.3%</u>
Total	0.3%	0.4%	0.7%	1.0%	2.3%	3.5%	5.8%	8.8%	11.8%	14.7%
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	\$109,518
Local Competitors	191	274	637	1,012	2,481	4,034	6,508	10,945	14,781	18,512
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	6 : 1

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 3/. 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 2003).

Table 8.8
Telephone Numbers Still Ported on December 31, 2002
(By Quarter in Which They Were Ported)

Ported During		Numbers Ported Due to Customers Changing Carriers		Numbers Ported for Pooling Reasons				Total Numbers
				Intra-Carrier ¹		Pooled (Inter-Carrier)		
Year	Quarter	Ported During		Ported During		Ported During		
		Quarter	Cumulative	Quarter	Cumulative	Quarter	Cumulative	
1997	Fourth	80	80	0	0	0	0	80
1998	First	239	319	6	6	0	0	325
	Second	4,562	4,881	47	53	0	0	4,934
	Third	56,591	61,472	2,214	2,267	2,958	2,958	66,697
	Fourth	238,460	299,932	32,163	34,430	3,954	6,912	341,274
1999	First	356,036	655,968	13,030	47,460	55,222	62,134	765,562
	Second	526,241	1,182,209	35,815	83,275	83,973	146,107	1,411,591
	Third	627,638	1,809,847	67,952	151,227	48,243	194,350	2,155,424
	Fourth	794,523	2,604,370	83,114	234,341	44,586	238,936	3,077,647
2000	First	818,119	3,422,489	98,084	332,425	72,237	311,173	4,066,087
	Second	898,638	4,321,127	200,373	532,798	242,410	553,583	5,407,508
	Third	1,033,998	5,355,125	164,521	697,319	182,186	735,769	6,788,213
	Fourth	1,219,252	6,574,377	174,549	871,868	181,229	916,998	8,363,243
2001	First	1,318,991	7,893,368	243,700	1,115,568	208,303	1,125,301	10,134,237
	Second	1,590,241	9,483,609	364,137	1,479,705	326,659	1,451,960	12,415,274
	Third	1,624,339	11,107,948	465,186	1,944,891	571,556	2,023,516	15,076,355
	Fourth	1,818,182	12,926,130	374,841	2,319,732	628,970	2,652,486	17,898,348
2002	First	1,731,539	14,657,669	396,403	2,716,135	884,984	3,537,470	20,911,274
	Second	1,831,967	16,489,636	444,145	3,160,280	1,495,717	5,033,187	24,683,103
	Third	2,385,469	18,875,105	457,784	3,618,064	3,826,739	8,859,926	31,353,095
	Fourth	2,574,245	21,449,350	726,122	4,344,186	5,168,992	14,028,918	39,822,454

¹ Not all numbers ported are ported to a different carrier, as carriers sometimes port numbers to themselves. This happens for a variety of reasons. For instance, thousands-block pooling, which uses number porting technology, transfers telephone numbers from a carrier that does not immediately need them to a carrier with a more immediate need. Not all numbers within a block are transferred to the new carrier, however. Those numbers that will remain with the "donor" carrier are first ported from that carrier to itself as a prepooling measure, which ensures that the "donor" carrier retains those numbers. Carriers may also port numbers among switches to use numbers more effectively.

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 Porting Database
(At the End of the Quarter)

Year Quarter	Numbers Ported Due to Customers Changing Carriers	Intra-Carrier Ports ¹	Pooled (Inter-Carrier)	
	Quantity	Quantity	Quantity	
1999	Second	1,839,633	121,609	206,701
	Third	2,658,295	217,194	238,113
	Fourth	3,853,834	365,500	267,493
2000	First	5,028,858	512,425	364,044
	Second	5,781,174	659,368	625,677
	Third	7,595,076	1,006,298	939,168
	Fourth	9,145,985	1,216,008	1,193,525
2001	First	10,567,098	1,475,748	1,483,166
	Second	12,309,799	1,927,857	1,939,733
	Third	14,609,551	2,587,210	2,764,187
	Fourth	15,519,411	2,788,827	3,106,590
2002	First	16,809,924	3,148,440	3,864,960
	Second	18,210,322	3,508,827	5,423,002
	Third	19,862,391	3,833,369	9,100,482
	Fourth	21,449,350	4,344,186	14,028,918

¹ Not all numbers ported are ported to a different carrier, as carriers sometimes port numbers to themselves. This happens for a variety of reasons. For instance, thousands-block pooling, which uses number porting technology, transfers telephone numbers from a carrier that does not immediately need them to a carrier with a more immediate need. Not all numbers within a block are transferred to the new carrier, however. Those numbers that will remain with the "donor" carrier are first ported from that carrier to itself as a prepooling measure, which ensures that the "donor" carrier retains those numbers. Carriers may also port numbers among switches to use numbers more effectively.

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

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 approval by the Commission of section 271 applications by the Bell operating companies (BOCs) to provide in-region interLATA service in 42 states and the District of Columbia.

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 2001, long distance carriers generated over \$90 billion in toll revenues. Local telephone companies also provide toll service, primarily intrastate calling within their service territories. In 2001, local telephone companies provided about \$9 billion of such service. When combined, the total long distance market was more than \$99 billion. 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 for each of the three types are shown in Table 9.2. Of considerable interest is the enormous growth (more than 500%) in international revenues from 1984 to 2001.

Toll revenues can also be divided between residential and nonresidential services, as in Table 9.3. In 2001, residential customers generated over 45% of 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 one of 18 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 2002, 1,072 filers selected one of the above six categories for their primary line of business and are therefore categorized as being a toll carrier.

Carrier identification codes (CICs) provide information on the number of firms seeking to acquire certain types of interconnecting arrangements with local telephone companies. Any firm that seeks to use trunk-side connections with local telephone companies is provided a carrier identification code so that traffic can be efficiently routed. CICs are four-digit codes.

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.

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. We believe, however, that the number of firms obtaining these codes provides the best information available on the entry of new firms into the long distance market prior to 1986. The number of codes assigned is shown in Table 9.5.

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 9.6. Over time, AT&T and the local operating companies that provided telephone service have lost market share to new entrants. By 2001, carriers not even in existence a generation ago accounted for more than half of all long distance telephone toll revenues.

Table 9.7 shows market share information based on the revenues of those firms that identify themselves as primarily being long distance carriers. AT&T's 1984 toll revenues were about 90% of those reported by all long distance carriers. In 1995, AT&T was classified as a non-dominant carrier and, by 2001, AT&T's revenues had declined to less than 40% of those reported by all long distance carriers. By year end 2001, the RBOC long distance affiliates collectively reported toll revenues representing 6% of the revenues reported by all long distance carriers.

Table 9.8 shows market-share information based on all toll revenues, whether or not the carriers self identifies as being primarily a long distance carrier.

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 9.9, which is based on this information, presents nationwide market shares of households, direct dial intraLATA and interLATA minutes from 1995 to 2002. Table 9.10 presents market shares by region for 2002.

5. Section 271 Applications

Section 271 of the Communications Act requires the regional Bell operating companies (RBOCs) 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 must demonstrate that it satisfies the 14-point competitive checklist, that it will comply with the separate affiliate and nondiscrimination requirements of section 272, and that the requested authorization is consistent with the public interest, convenience, and necessity. After a section 271 application is filed with the Commission, the Commission has 90 days to determine whether a RBOC has taken the statutorily required steps to open its local telecommunications markets to competition.

A RBOC applicant must demonstrate either that: A) one or more unaffiliated competing providers of local telephone service to residential and business subscribers is connected to the RBOC's network, and that such local telephone service is 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 has requested to connect to a RBOC's network, the RBOC has 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 12, 1999, the first regional Bell operating company's application (Bell

Atlantic, which is now known as Verizon) was approved by the Commission to provide in-region interLATA service in the state of New York. Table 9.11 shows the states in which the BOCs have filed section 271 applications, the date the application was filed, and the application's resolution date and outcome. Table 9.12 shows, by quarter, the number of section 271 applications approved from the end of 1999 to the present and the percentage of lines these approvals represent. At this time, RBOC section 271 applications have been authorized in forty-two states and the District of Columbia.

As of July 18, 2003, there were two long distance applications pending before the Commission for five states – SBC's for Michigan (filed June 19, 2003; pending, due September 17, 2003) and SBC's for Illinois, Indiana, Ohio, and Wisconsin, (filed July 17, 2003; pending, due October 15, 2003).

The companies approved must continue to comply with the section 271 checklist requirements as the Commission has a number of enforcement tools at its disposal, including imposing penalties or suspension of approval. Additional information on section 271 applications can be found on the Commission's web site at www.fcc.gov/Bureaus/Common_Carrier/in-region_applications/.

Table 9.1
Total Toll Service Revenues by Carrier*
(Dollar Amounts Shown in Millions)

Company	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
AT&T Companies ¹											
AT&T Communications, Inc.	\$35,495	\$35,731	\$37,166	\$38,069	\$39,264	\$39,470	\$40,551	\$39,680	\$37,646	\$33,310	\$27,094
Alascom, Inc.	333	320	329	325							
Teleport Communications Group, Inc.								284	464	632	437
ACC Long Distance Corp.					118	122	123				
WorldCom Companies ^{2 3}											
WorldCom, Inc.							22,192	23,431	22,554	21,259	17,659
MCI Telecommunications Corp.	9,719	10,947	11,715	14,617	16,372	17,150					
WorldCom, Inc.	801	1,145	2,221	3,640	4,485	5,897					
Advanced Telecommunications Corp. (ATC)											
Metromedia Communications Corp.	369	297									
Comsystems Network Services	135	116									
Witel, Inc.	494	664	917								
MFS Intelenet, Inc.				118	122						
Intermedia Communications, Inc.							380	516	444		
Sprint Companies ^{4 5}											
Sprint Corporation	5,658	6,139	6,805	7,277	7,944	8,595	7,994	9,708	9,038	8,424	7,076
Qwest Companies ⁶											
LCI Int'l Telecom Corp. d/b/a Qwest Comm. Svcs. *	243	317	453	671	1,103	1,001	1,664	1,394	1,271	871	
Qwest Communications Corp. *							320	517	1,773	2,309	3,341
USLD Communications, Inc. *		100	136	155	188	241	279	216			
Global Crossing Companies ⁷											
Global Crossing Telecommunications, Inc.	376	436	568	827	1,119	775	874	874	801	817	786
Global Crossing Bandwidth, Inc.			144	127		324	539	692	1,555	1,225	1,312
Global Crossing North American Networks, Inc.	168	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
Verizon Companies											
Bell Atlantic Comm, Inc. d/b/a Verizon Long Dist. *									130	864	1,432
Verizon Select Services, Inc.						340	607	834	1,004	509	
VarTec Telecom, Inc. ⁸			107	125	470	820	836	819	923	947	793
Excel Telecommunications, Inc.			156	363	1,091	1,179	1,219	942	703	611	427
eMeritus Communications, Inc.			215	429	379	264	260	169			
Long Distance Wholesale Club					176	121	131				
SBC Companies											
Southwestern Bell Communications Svcs., Inc. *										449	729
SNET America, Inc. *						142	162	186	189	177	158
Williams Communications, LLC						227	126	184	413	593	737
Broadwing Companies ⁹											
Broadwing Communications Services, Inc.						258	724	453	574	676	413
Broadwing Telecommunications, Inc.								150	202	349	285
BellSouth Long Distance, Inc. *										294	486
Cable & Wireless USA, Inc.	495	557	654	700	919	1,066	953	913	770	598	399
McLeodUSA Telecommunications, Inc.								232	448	463	358
ITC^DeltaCom Communications, Inc.								122	172	270	311
Teleglobe USA, Inc.							275	557	282	208	269
Touch America, Inc.									140	476	260
Business Telecom, Inc. ¹⁰				115	149	195	212	260	271	286	251
Americatel Corporation								129	188	269	246
Evercom Systems, Inc.								205	206	245	239
General Communication, Inc.		92	106	120	143	158	175	184	211	238	227
Electric Lightwave, Inc.									145	227	180
ALLTEL Communications, Inc. (ACI)									120	174	160
Talk America, Inc. f/k/a Talk.com Holding Corp.				180	232	305	426	398	428	249	160
Equant, Inc.										183	151
Norlight Telecommunications, Inc.										142	140
Level 3 Communications, LLC									119	160	131
Cox California Telcom, LLC d/b/a Cox Comm											130
Others ^{11 12}	4,082	4,459	5,230	5,843	7,395	11,155	12,876	13,719	15,940	10,907	NA
Total Long Distance Carriers	58,368	61,533	67,351	74,143	82,113	90,028	94,396	98,788	100,549	90,703	NA
Bell Incumbent Local Exchange Operating Cos.	9,718	9,849	9,527	8,189	7,950	7,138	6,857	6,182	5,865	5,084	NA
BellSouth Telecommunications, Inc.									466	412	341
Qwest Communications, Inc.									374	264	NA
SBC Communications, Inc.									2,748	2,420	2,182
Verizon Communications, Inc.									2,278	1,988	1,668
Other Incumbent Local Telephone Cos. ¹²	3,897	3,908	3,848	3,143	3,298	3,077	2,572	1,864	751	688	NA
CAPs, CLECs, & Other Local Telephone Cos. ¹²						550	1,230	1,412	2,450	2,825	NA
Total Local Exchange Carriers	13,615	13,757	13,375	11,332	11,248	10,765	10,659	9,458	9,066	8,597	NA
Total Toll Service Revenues	\$71,983	\$75,290	\$80,726	\$85,475	\$93,361	\$100,793	\$105,055	\$108,246	\$109,615	\$99,300	NA

Note: Total toll service revenues include intrastate, interstate and international toll revenues.

* 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 MCI WorldCom's revenues were revised for 1998 to exclude enhanced services and to be consistent with revenues reported for 1999.

³ 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. MCI Communications Corp. and Telecom*USA merged during 1989 and began reporting consolidated revenues in 1990. Metromedia Communications Corp. and ITT Communications Services, Inc., merged during 1988, but reported 1989 revenue separately. LDDS Communications, Inc., and Advanced Telecommunications Corp. merged in 1992. In 1993, LDDS merged with Metromedia Communications 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. The information shown for GTE Sprint and US Telecom for 1986 is for January 1 - June 30. The information shown for Sprint Communications Corp. (then US Sprint) for 1986 is for July 1 - December 31. 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 LCI International Telecom Corp. and USLD Communications, Inc., merged in December of 1997 and filed separate revenue statements for the year. Qwest Communications Corp. merged with LCI and USLD Communications, Inc. in June of 1998, and each of the three affiliated companies filed a separate revenue statement for 1998.

⁷ Global Crossing Ltd. acquired Frontier Corporation September 28, 1999. In 1994, RCI Long Distance, Inc., changed its name to Frontier Corporation.

⁸ VarTec acquired Excel Telecommunications on April 8, 2002.

⁹ Cincinnati Bell Inc., merged with IXC Communications, Inc., on November 9, 1999 and soon began doing business as Broadwing, Inc.

¹⁰ Data for 1996 taken from the Annual Report to the Colorado Public Utilities Commission from telecommunications carriers regulated pursuant to §40-15-301 C.R.S.

¹¹ Includes wireless toll service revenues reported by wireless carriers.

¹² Estimated by FCC staff.

Source: The revenue information for the larger long distance telephone companies, shown in Table 9.1, 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 Report 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			Total Toll Revenues	As Percentage of Total Toll Revenues		
	Intrastate	Domestic Interstate	International		Intrastate	Domestic Interstate	International
1984	\$20,872	\$26,490	\$3,794	\$51,156	40.8 %	51.8 %	7.4 %
1985	22,310	28,387	4,119	54,815	40.7	51.8	7.5
1986	23,734	29,123	4,611	57,468	41.3	50.7	8.0
1987	25,339	27,844	5,336	58,519	43.3	47.6	9.1
1988	26,542	29,724	6,334	62,600	42.4	47.5	10.1
1989	28,060	30,585	7,379	66,024	42.5	46.3	11.2
1990	27,652	30,676	8,464	66,792	41.4	45.9	12.7
1991	27,149	31,331	10,078	68,558	39.6	45.7	14.7
1992	27,066	33,719	11,199	71,983	37.6	46.8	15.6
1993	28,158	34,661	12,470	75,290	37.4	46.0	16.6
1994	28,496	38,262	13,968	80,726	35.3	47.4	17.3
1995	29,147	39,903	16,425	85,475	34.1	46.7	19.2
1996	32,023	42,823	18,515	93,361	34.3	45.9	19.8
1997	32,859	47,716	20,218	100,793	32.6	47.3	20.1
1998	34,699	48,100	22,256	105,055	33.0	45.8	21.2
1999	33,600	54,483	20,163	108,246	31.0	50.4	18.6
2000	33,030	53,055	23,530	109,615	30.1	48.4	21.5
2001	29,530	50,236	19,535	99,301	29.7	50.6	19.7

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2003), available at www.fcc.gov/wcb/stats.

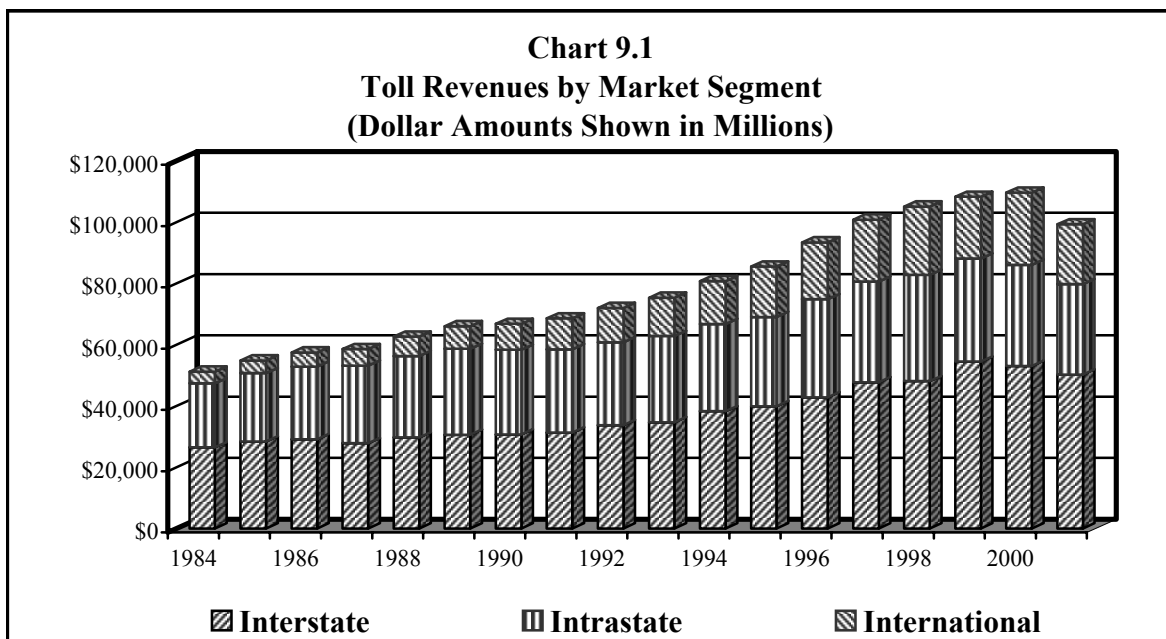


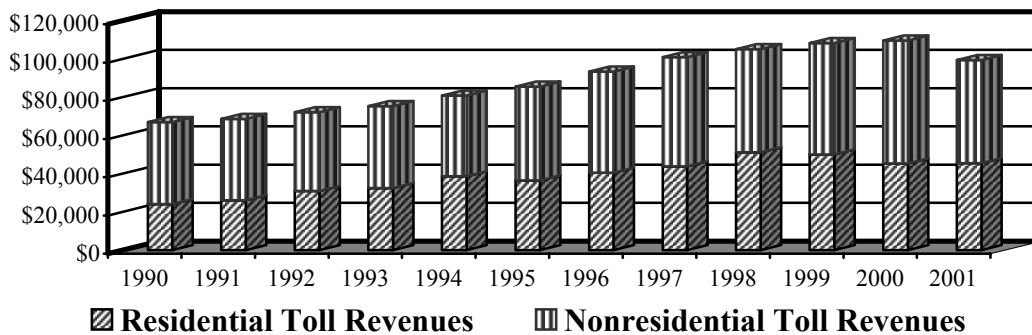
Table 9.3
Residential and Nonresidential Toll Revenues
(Dollar Amounts Shown in Millions)

Year	Toll Revenues		Total Toll Revenues	As Percentage of Total Toll Revenues ¹	
	Residential	Nonresidential		Residential	Nonresidential
1990	\$24,089	\$42,703	\$66,792	36.1 %	63.9 %
1991	26,028	42,530	68,558	38.0	62.0
1992	30,816	41,167	71,983	42.8	57.2
1993	32,408	42,882	75,290	43.0	57.0
1994	38,526	42,200	80,726	47.7	52.3
1995	36,361	49,114	85,475	42.5	57.5
1996	40,461	52,900	93,361	43.3	56.7
1997	43,754	57,039	100,793	43.4	56.6
1998 ²	51,057	53,998	105,055	48.6	51.4
1999	50,010	58,236	108,246	46.2	53.8
2000	45,271	64,344	109,615	41.3	58.7
2001	45,457	53,844	99,301	45.8	54.2

¹ The percentages of residential and non-residential toll revenues to total toll revenues are based on data published by the U.S. Census Bureau in the *2001 Service Annual Survey, Information Sector Services, Table 3.3.11, Wired Telecommunications Carriers (NAICS 51331)--Estimated Local, Long-Distance, and Network Access Revenue by Type of Customer and Type of Service for Employer Firms: 2001*. We have taken the percentages and applied them to our total revenue amount to obtain the residential and nonresidential revenues.

² In 1998, a break in the time series occurred when, for this particular survey, the U.S. Census Bureau converted from the Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS).

Chart 9.2
Residential and Nonresidential Toll Revenues
(Dollar Amounts Shown in Millions)



**Table 9.4
Number of Toll Carriers**

	TRS Data				TRS & USF Data		FCC Form 499-A Data			
	1993	1994	1995	1996	1997	1998	1999	2000	2001	Preliminary 2002
Carriers That Provide Toll Service 1/										
Toll Carriers										
Interexchange Carriers (IXCs)	83	97	130	149	151	171	178	212	233	261
Other Toll Carriers										
Operator Service Providers (OSPs)	35	29	25	27	32	24	15	20	19	23
Pre-paid Calling Card Providers	NA	NA	8	16	18	20	18	23	27	37
Satellite Service Providers	NA	NA	NA	22	13	13	17	25	34	34
Toll Resellers	171	206	260	345	340	388	406	493	558	625
Other Toll Service Providers	<u>32</u>	<u>34</u>	<u>30</u>	<u>28</u>	<u>15</u>	<u>31</u>	<u>17</u>	<u>35</u>	<u>69</u>	<u>92</u>
Total Toll Service Providers	321	366	453	587	569	647	651	808	940	1,072
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	NA
All Toll Service Providers	NA	NA	NA	NA	2,106	2,387	2,521	2,486	2,824	NA

NA - Not available.

1/ Counts of toll carriers through 2001 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. The preliminary 2002 counts include all entities that filed an FCC Form 499-A by November 22, 2002. This group comprises entities that offered telecommunications service in 2001 and new filers during 2002. These figures may double count some firms that have been bought, sold or merged during the year and include some firms that were not yet providing service in 2002.

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 2003) and *Telecommunications Provider Locator* (January 2003), available at <http://www.fcc.gov/wcb/stats>.

Table 9.5
Number of Carrier Identification Codes (CICs)
Assigned by
North American Numbering Plan Administration

Year	Quarter	Number of CICs Assigned	Year	Quarter	Number of CICs Assigned	
					FGB	FGD
1982	First Quarter	11	1993	First Quarter	694 ²	709
	Second Quarter	13		Second Quarter	738	746
	Third Quarter	13		Third Quarter	739	760
	Fourth Quarter	11		Fourth Quarter	753	796
1983	First Quarter	15	1994	First Quarter	781	815
	Second Quarter	25		Second Quarter	795	845
	Third Quarter	33		Third Quarter	805	899 ³
	Fourth Quarter	42		Fourth Quarter	819	947
1984	First Quarter	54	1995	First Quarter	829	1,016
	Second Quarter	86 ¹		Second Quarter	832	1,082
	Third Quarter	121		Third Quarter	843	1,146
	Fourth Quarter	155		Fourth Quarter	852	1,209
1985	First Quarter	182	1996	First Quarter	865	1,253
	Second Quarter	212		Second Quarter	876	1,300
	Third Quarter	236		Third Quarter	875	1,315
	Fourth Quarter	256		Fourth Quarter	878	1,337
1986	First Quarter	276	1997	First Quarter	882	1,395
	Second Quarter	331		Second Quarter	896	1,427
	Third Quarter	361		Third Quarter	908	1,481
	Fourth Quarter	413		Fourth Quarter	909	1,538
1987	First Quarter	444	1998	First Quarter	943	1,557
	Second Quarter	495		Second Quarter	937	1,614
	Third Quarter	530		Third Quarter	943	1,671
	Fourth Quarter	573		Fourth Quarter	952	1,721
1988	First Quarter	602	1999	First Quarter	949	1,842
	Second Quarter	621		Second Quarter	953	1,909
	Third Quarter	601		Third Quarter	954	1,980
	Fourth Quarter	639		Fourth Quarter	956	2,032
1989	First Quarter	685	2000	First Quarter	958	2,093
	Second Quarter	714		Second Quarter	958	2,142
	Third Quarter	730		Third Quarter	937	2,181
	Fourth Quarter	747		Fourth Quarter	911	2,203
1990	First Quarter	774	2001	First Quarter	897	2,232
	Second Quarter	794		Second Quarter	885	2,225
	Third Quarter	817		Third Quarter	876	2,259
	Fourth Quarter	791		Fourth Quarter	853	2,237
1991	First Quarter	745	2002	First Quarter	838	2,231
	Second Quarter	766		Second Quarter	835	2,230
	Third Quarter	783		Third Quarter	838	2,259
	Fourth Quarter	807		Fourth Quarter	836	2,292
1992	First Quarter	786	2003	First Quarter	834	2,328
	Second Quarter	831				
	Third Quarter	840				
	Fourth Quarter	886				

Note: Carrier identification codes (CICs) are used to route and bill calls in the public switched telephone network. CICs are four-digit codes in the format XXXX, where X is any digit from 0 through 9. Entities connect their facilities to access provider's facilities using several different access arrangements, the common ones being Feature Group B (FGB) and Feature Group D (FGD).

¹ Conversion from 2-digit to 3-digit codes.

² Conversion from 3-digit to 4-digit codes.

³ Includes both 3-digit and 4-digit codes.

Source: North American Numbering Plan Administrator

Table 9.6
Toll Revenues of Long Distance Carriers and Local Exchange Carriers
(Dollar Amounts Shown in Millions)

Year	Long Distance Carriers				Local Exchange Carriers			Total Industry Toll Revenues
	AT&T ¹	MCI ²	Sprint	Other Long Distance Carriers ³	Incumbent Local Exchange Carriers		Competitive Local Exchange Carriers	
					Regional Bell Operating Companies	Other Incumbent Local Exchange Carriers		
1984	\$34,935	\$1,761	\$1,052	\$1,007	\$9,037	\$3,364		\$51,156
1985	36,770	2,331	1,509	2,020	9,026	3,159		54,815
1986	36,514	3,372	1,141	3,568	9,599	3,274		57,468
1987	35,219	3,938	2,592	3,034	10,268	3,468		58,519
1988	35,407	4,886	3,405	3,789	10,668	4,445		62,600
1989	34,549	6,717	4,320	5,598	10,549	4,291		66,024
1990	33,880	7,392	5,041	5,789	10,578	4,112		66,792
1991	34,384	8,266	5,378	6,415	10,066	4,049		68,558
1992	35,495	10,520	5,658	6,695	9,718	3,897		71,983
1993	35,731	12,092	6,139	7,571	9,849	3,908		75,290
1994	37,166	13,936	6,805	9,444	9,527	3,848		80,726
1995	38,394	16,564	7,277	11,908	8,189	3,143		85,475
1996	39,264	20,979	7,944	13,809	7,950	3,298		93,244
1997	39,470	23,047	8,595	18,916	7,138	3,077	\$550	100,793
1998	40,674	22,192	7,994	23,536	6,857	2,572	1,230	105,055
1999	39,964	23,431	9,708	25,685	6,182	1,864	1,412	108,246
2000	38,110	22,554	9,038	30,847	5,865	751	2,450	109,615
2001	33,942	21,259	8,424	27,078	5,084	688	2,825	99,300

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 in-region Regional Bell Operating Companies' long distance affiliates which began operations in 2000. Also includes wireless toll service revenues reported by wireless carriers. See Table 9.1.

Source: See Notes to Table 9.1.

Table 9.7
Shares of Total Toll Service Revenues
Long Distance Carriers Only

Year	AT&T	MCI	Sprint	BellSouth ¹	Qwest ¹	SBC ¹	Verizon ¹	All Other Long Distance Carriers ²
				Excludes Incumbent Local Exchange Carriers' Operating Companies				
1984	90.1 %	4.5 %	2.7 %					2.6 %
1985	86.3	5.5	2.6					5.6
1986	81.9	7.6	4.3					6.3
1987	78.6	8.8	5.8					6.8
1988	74.6	10.3	7.2					8.0
1989	67.5	12.3	8.4					11.8
1990	65.0	14.5	9.7					10.8
1991	63.2	15.6	9.9					11.3
1992	60.8	18.1	9.7					11.5
1993	58.1	19.7	10.0					12.3
1994	55.2	20.7	10.1					14.0
1995	51.8	24.6	9.8					13.8
1996	47.9	25.6	9.7					26.8
1997	43.8	25.6	9.5					21.0
1998	43.1	23.5	8.5					24.9
1999	40.5	23.7	9.8					26.0
2000	37.9	22.4	9.0		3.0 %	0.2 %	1.1 %	26.3
2001	37.4	23.4	9.3	0.3 %	3.5	0.7	1.5	23.8

¹ Figures reported by RBOC long distance affiliates, which may include both in-region and out-of-region long distance service. 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. Excludes incumbent local exchange carriers and competitive local exchange carriers.

Table 9.8
Shares of Total Toll Service Revenues
All Long Distance Toll Providers *

Year	AT&T	MCI	Sprint	BellSouth ¹	Qwest ¹	SBC ¹	Verizon ¹	All Other Long Distance Carriers ²	Bell Incumbent Local Exchange Carriers	Other Local Telephone Companies
				Includes Incumbent Local Exchange Carriers' Operating Companies						
1984	68.3 %	3.4 %	2.1 %					2.0 %	17.7 %	6.6 %
1985	67.1	4.3	2.0					4.4	16.5	5.8
1986	63.5	5.9	3.3					4.9	16.7	5.7
1987	60.2	6.7	4.4					5.2	17.5	5.9
1988	56.6	7.8	5.4					6.1	17.0	7.1
1989	52.3	9.5	6.5					9.1	16.0	6.5
1990	50.7	11.3	7.5					8.4	15.8	6.2
1991	50.2	12.5	7.8					9.0	14.7	5.9
1992	49.3	14.6	7.9					9.3	13.5	5.4
1993	47.5	16.0	8.2					10.1	13.1	5.2
1994	46.0	17.3	8.4					11.7	11.8	4.8
1995	44.9	21.4	8.5					12.0	9.6	3.7
1996	42.2	22.5	8.5					14.7	8.5	3.5
1997	39.3	22.9	8.5					18.6	7.1	3.6
1998	38.7	21.1	7.6					22.4	6.5	3.6
1999	36.9	21.6	9.0					23.7	5.7	3.0
2000	34.8	20.6	8.2	0.4 %	3.1 %	2.7 %	3.1 %	24.2		2.9
2001	34.2	21.4	8.5	0.7	3.4	3.1	3.4	21.8		3.5

* 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 and 2001. 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. Excludes incumbent local exchange carriers and competitive local exchange carriers.

Table 9.9
Residential Market Shares
(1995 - 2002)

	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
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
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

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 (for 2001, only about 8% of households in the sample have 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, 1999, 2000 and 2001, 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 9.10
Residential Market Share
By Region: 2002

Region ¹	AT&T ²	MCI ³	Sprint	BellSouth ⁴	Qwest ⁵	SBC ⁶	Verizon ⁷	Other ⁸	Sample Size
Households									
Southeast	41.3 %	16.6 %	10.9 %	1.2 %	2.1 %	0.1 %	5.4 %	22.4 %	5,895
West	33.9	18.1	6.6	0.0	4.6	0.0	4.0	32.8	4,634
West Coast	39.5	17.3	8.1	0.0	2.2	0.7	10.7	21.5	2,911
Mid-Atlantic	39.2	18.2	7.1	0.0	2.2	0.0	11.7	21.8	4,385
Mid-West	40.9	15.4	7.2	0.0	2.8	0.3	7.9	25.5	5,329
Northeast	29.9	12.1	2.6	0.0	1.3	6.7	28.4	19.1	3,042
Southwest	27.3	10.8	8.5	0.0	1.9	23.9	4.3	23.3	3,692
Total	36.7 %	15.8 %	7.6 %	0.2 %	2.5 %	3.8 %	9.3 %	24.1 %	29,888
Direct Dial IntraLATA Minutes									
Southeast	13.5 %	13.4 %	14.2 %	13.4 %	0.6 %	0.0 %	4.3 %	40.6 %	72,005
West	16.4	16.2	4.7	0.0	16.4	0.0	3.0	43.3	108,717
West Coast	10.1	13.5	2.6	0.0	3.1	41.4	14.2	15.2	164,022
Mid-Atlantic	10.1	9.9	5.3	0.0	0.4	0.0	46.7	27.7	196,626
Mid-West	15.3	10.5	4.4	0.0	0.5	27.9	6.8	34.4	171,491
Northeast	29.7	16.9	0.8	0.0	0.7	7.8	13.0	30.9	76,202
Southwest	11.7	5.7	4.7	0.0	0.3	40.3	3.2	34.1	111,422
Total	14.0 %	11.8 %	4.8 %	1.1 %	2.9 %	18.5 %	16.3 %	30.7 %	900,484
Direct Dial InterLATA Minutes									
Southeast	33.6 %	17.5 %	14.2 %	1.4 %	1.9 %	0.0 %	3.6 %	27.8 %	398,307
West	29.0	22.8	8.2	0.0	0.0	0.0	1.7	38.2	258,900
West Coast	31.6	19.0	9.1	0.0	2.6	0.3	6.8	30.6	231,347
Mid-Atlantic	34.7	20.5	8.7	0.0	2.6	0.0	3.9	29.5	282,984
Mid-West	31.0	18.7	6.7	0.0	1.7	0.0	6.0	35.9	296,070
Northeast	32.8	12.8	4.2	0.0	0.9	6.2	19.2	23.9	187,217
Southwest	24.0	13.3	8.1	0.0	1.5	19.9	2.7	30.4	226,761
Total	31.2 %	18.1 %	9.0 %	0.3 %	1.6 %	3.1 %	5.6 %	31.0 %	1,881,586

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 TelecomsReQuest Market Monitor™, Bill Harvesting®.

Notes for Table 9.10

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 9.11
Regional Bell Operating Companies' Applications
To Provide In-Region InterLATA Service *
(Section 271 Applications)

State	Resolution	Date Application Filed	Date Application Resolved
Alabama	Approved	06/20/02	09/18/02
Arkansas	Approved	08/20/01	11/16/01
California	Approved	09/20/02	12/19/02
Colorado	Withdrawn	06/13/02	09/10/02
Colorado	Approved	09/30/02	12/23/02
Connecticut	Approved	04/23/01	07/20/01
Delaware	Approved	06/27/02	09/25/02
District of Columbia	Approved	12/18/02	03/19/03
Florida	Approved	09/20/02	12/19/02
Georgia	Withdrawn	10/02/01	12/20/01
Georgia	Approved	02/14/02	05/15/02
Idaho	Withdrawn	06/13/02	09/10/02
Idaho	Approved	09/30/02	12/23/02
<i>Illinois</i>	<i>Pending</i>	<i>07/17/03</i>	¹
<i>Indiana</i>	<i>Pending</i>	<i>07/17/03</i>	¹
Iowa	Withdrawn	06/13/02	09/10/02
Iowa	Approved	09/30/02	12/23/02
Kansas	Approved	10/26/00	01/22/01
Kentucky	Approved	06/20/02	09/18/02
Louisiana	Denied	11/06/97	02/04/98
Louisiana	Denied	07/09/98	10/13/98
Louisiana	Withdrawn	10/02/01	12/20/01
Louisiana	Approved	02/14/02	05/15/02
Maine	Approved	03/21/02	06/19/02
Maryland	Approved	12/18/02	03/19/03
Massachusetts	Withdrawn	09/22/00	12/18/00
Massachusetts	Approved	01/16/01	04/16/01
<i>Michigan</i>	<i>Pending</i>	<i>06/19/03</i>	²
Michigan	Withdrawn	01/02/97	02/11/97
Michigan	Denied	05/21/97	08/19/97
Michigan	Withdrawn	01/16/03	04/16/03
Minnesota	Approved	03/28/03	06/26/03
Mississippi	Approved	06/20/02	09/18/02
Missouri	Withdrawn	04/04/01	06/07/01
Missouri	Approved	08/20/01	11/16/01
Montana	Withdrawn	07/12/02	09/10/02
Montana	Approved	09/30/02	12/23/02
Nebraska	Withdrawn	06/13/02	09/10/02

Table 9.11
Regional Bell Operating Companies' Applications
To Provide In-Region InterLATA Service *
(Section 271 Applications)

State	Resolution	Date Application Filed	Date Application Resolved
Nebraska	Approved	09/30/02	12/23/02
Nevada	Approved	01/14/03	04/14/03
New Hampshire	Approved	06/27/02	09/25/02
New Jersey	Withdrawn	12/20/01	03/20/02
New Jersey	Approved	03/26/02	06/24/02
New Mexico	Approved	01/15/03	04/15/03
New York	Approved	09/29/99	12/22/99
North Carolina	Approved	06/20/02	09/18/02
North Dakota	Withdrawn	06/13/02	09/10/02
North Dakota	Approved	09/30/02	12/23/02
<i>Ohio</i>	<i>Pending</i>	<i>07/17/03</i>	¹
Oklahoma	Denied	04/11/97	06/26/97
Oklahoma	Approved	10/26/00	01/22/01
Oregon	Approved	01/15/03	04/15/03
Pennsylvania	Approved	06/21/01	09/19/01
Rhode Island	Approved	11/26/01	02/22/02
South Carolina	Denied	09/30/97	12/24/97
South Carolina	Approved	06/20/02	09/18/02
South Dakota	Approved	01/15/03	04/15/03
Tennessee	Approved	09/20/02	12/19/02
Texas	Withdrawn	01/10/00	04/05/00
Texas	Approved	04/05/00	06/30/00
Utah	Withdrawn	07/12/02	09/10/02
Utah	Approved	09/30/02	12/23/02
Vermont	Approved	01/17/02	04/17/02
Virginia	Approved	08/01/02	10/30/02
Washington	Withdrawn	07/12/02	09/10/02
Washington	Approved	09/30/02	12/23/02
West Virginia	Approved	12/18/02	03/19/03
<i>Wisconsin</i>	<i>Pending</i>	<i>07/17/03</i>	¹
Wyoming	Withdrawn	07/12/02	09/10/02
Wyoming	Approved	09/30/02	12/23/02

* As of July 18, 2003.

¹ Statutory deadline for Commission action is October 15, 2003.

² Statutory deadline for Commission action is September 17, 2003.

Table 9.12
Section 271 Approvals
(As of the End of the Quarter)

	States, including the District of Columbia, with Approval	Percentage of Regional Bell Operating Company (RBOC) Lines ¹
1999 September	0	0.0 %
December	1	8.5
2000 March	1	8.5
June	2	15.7
September	2	15.7
December	2	15.7
2001 March	4	17.9
June	5	21.2
September	7	25.9
December	9	28.5
2002 March	10	29.0
June	15	39.1
September	22	46.3
December	35	75.1
2003 March	38	79.0
June	43	82.7

¹ RBOC lines do not include GTE or SNET.

10 Minutes

1. Dial Equipment 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 calls are not metered and estimates of total calling are subject to wide margins of error. Periodic studies are 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) are used to estimate the proportion of calling that is interstate and to allocate costs between interstate and intrastate services.

DEMs, which are shown in Table 10.1, are measured as calls enter and leave telephone switches; therefore, two DEMs are counted for every conversation minute. For WATS and toll-free (800/888/877/866) calls, they include both open and closed ends. Only the domestic end of international calls are counted. (Individual company and state data can be found in our *Monitoring Report* on the **FCC-State Link** web page.) Beginning with data for 2001, the reporting of DEM data has been made voluntary. Industry totals for 2001 were estimated assuming that the rate of change for companies that did not report was on average the same as for companies that did report.

Until recently, the volume of local calling grew slowly. In recent years, however, local usage has begun to surge due to the introduction of facsimile machines, computer modems, and other devices that use telephone lines. The volume of long distance calling surged as prices fell in the mid-1980s. Local minutes fell from 84% of all calls in 1980 to 74% in the 1990s and then climbed back to 79% in 2001. Intrastate toll minutes increased from 8% of all minutes in 1980 to 12% in 1990 and then fell back to 9% in 2001. Interstate calling minutes increased from 8% of the total in 1980 to 15% in the mid-1990s and fell back to 13% in 2001.

As shown in Table 10.2, the average telephone line is used primarily for local calling and is now used over an hour per day for all calls (local, intrastate toll, and interstate toll). Increases in both local and long distance calling have caused the total usage per line to increase from 46 minutes per day in 1980 to 71 minutes per day in 2001.

2. Switched Access Minutes

An alternative measure of interstate calling became available in 1984. 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 systems 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.) Finally, switched access minutes include time for incomplete calls and setup time.

Table 10.3 shows the total number of interstate switched access minutes handled by all long distance carriers. The number of minutes grew steadily from mid-1984 to 2001 stemming from a combination of overall economic growth and price reductions.

Telephone industry traffic experts often argue that dial equipment minutes represent the best available information on the proportions of different types of calls, while access minutes are the most accurate available data on the volume of interstate calling. However, it is not clear why reported changes in access minutes are not entirely consistent with reported changes in dial equipment minutes.

Table 10.1
Dial Equipment Minutes
(Minutes Shown in Billions)

	Local	Intrastate Toll	Interstate Toll	Total
1980	1,458	141	133	1,733
1981	1,492	151	144	1,787
1982	1,540	158	154	1,853
1983	1,587	166	169	1,923
1984	1,639	198	208	2,045
1985	1,673	222	250	2,145
1986	1,699	237	270	2,207
1987	1,713	253	295	2,261
1988	1,795	269	321	2,384
1989	1,829	286	344	2,459
1990	1,846	298	353	2,497
1991	1,859	302	366	2,527
1992	1,926	311	381	2,618
1993	2,027	316	396	2,739
1994	2,126	327	420	2,873
1995	2,224	346	454	3,025
1996	2,389	370	486	3,245
1997	2,694	407	528	3,629
1998	2,992	423	556	3,971
1999	3,378	452	585	4,414
2000	3,909	472	616	4,998
2001	3,784	420	615	4,819
Increase Over Prior Year				
1981	2 %	7 %	8 %	3 %
1982	3	5	7	4
1983	3	5	10	4
1984	3	19	23	6
1985	2	12	20	5
1986	2	7	8	3
1987	1	7	9	2
1988	5	6	9	5
1989	2	6	7	3
1990	1	4	3	2
1991	1	1	4	1
1992	4	3	4	4
1993	5	2	4	5
1994	5	3	6	5
1995	5	6	8	5
1996	7	7	7	7
1997	13	10	9	12
1998	11	4	5	9
1999	13	7	5	11
2000	16	5	5	13
2001	-3	-11	0	-4
Percent Distribution				
1980	84 %	8 %	8 %	100 %
1981	83	8	8	100
1982	83	9	8	100
1983	83	9	9	100
1984	80	10	10	100
1985	78	10	12	100
1986	77	11	12	100
1987	76	11	13	100
1988	75	11	13	100
1989	74	12	14	100
1990	74	12	14	100
1991	74	12	14	100
1992	74	12	15	100
1993	74	12	14	100
1994	74	11	15	100
1995	74	11	15	100
1996	74	11	15	100
1997	74	11	15	100
1998	75	11	14	100
1999	77	10	13	100
2000	78	9	12	100
2001	79	9	13	100

Source: National Exchange Carrier Association.

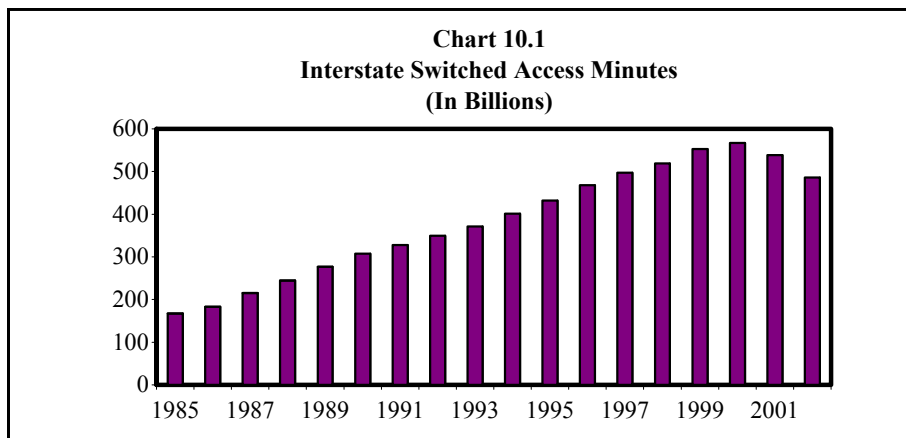
Table 10.2
Line Usage Per Day
(Dial Equipment Minutes per Local Loop)

	Local	Intrastate Toll	Interstate Toll	Total
1980	39	4	4	46
1981	39	4	4	46
1982	39	4	4	47
1983	39	4	4	48
1984	40	5	5	50
1985	40	5	6	51
1986	39	5	6	51
1987	38	6	7	50
1988	39	6	7	51
1989	38	6	7	51
1990	37	6	7	50
1991	37	6	7	50
1992	37	6	7	50
1993	37	6	7	51
1994	38	6	8	51
1995	38	6	8	52
1996	39	6	8	53
1997	42	6	8	57
1998	46	6	8	60
1999	50	7	9	65
2000	57	7	9	72
2001	56	6	9	71
Increase Over Prior Year				
1981	-1 %	4 %	5 %	0 %
1982	1	3	5	2
1983	0	2	7	1
1984	1	17	21	4
1985	-1	9	17	2
1986	0	5	6	1
1987	-3	3	5	-1
1988	1	2	5	2
1989	-1	3	4	0
1990	-2	1	-1	-2
1991	-2	-1	1	-1
1992	0	0	1	0
1993	2	-1	1	2
1994	1	0	3	1
1995	1	2	4	1
1996	3	2	2	3
1997	8	6	4	7
1998	7	0	2	6
1999	10	4	2	8
2000	13	2	3	11
2001	-1	-9	2	-2

Table 10.3
Interstate Switched Access Minutes
(In Billions)

Year	Period	Access Minutes	Year	Period	Access Minutes	Year	Period	Access Minutes
1984	Third Quarter	37.5	1991	First Quarter	79.2	1998	First Quarter	124.0
	Fourth Quarter	39.6		Second Quarter	81.9		Second Quarter	131.3
				Third Quarter	82.6		Third Quarter	130.7
				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	136.0
	Second Quarter	41.5		Second Quarter	86.5		Second Quarter	138.2
	Third Quarter	42.8		Third Quarter	87.9		Third Quarter	138.2
	Fourth Quarter	43.3		Fourth Quarter	89.8		Fourth Quarter	140.2
		Total 1985	167.1	Total 1992	349.7	Total 1999	552.7	
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	140.0
		Total 1986	183.1	Total 1993	371.2	Total 2000	567.0	
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	119.4
	Fourth Quarter	64.0		Fourth Quarter	110.6		Fourth Quarter	117.8
		Total 1988	244.6	Total 1995	431.9	Total 2002	486.0	
1989	First Quarter	66.2	1996	First Quarter	115.7	2003	First Quarter	113.8
	Second Quarter	68.5		Second Quarter	114.7			
	Third Quarter	69.7		Third Quarter	117.5			
	Fourth Quarter	72.6		Fourth Quarter	120.2			
		Total 1989	277.1	Total 1996	468.1			
1990	First Quarter	74.7	1997	First Quarter	122.1			
	Second Quarter	75.8		Second Quarter	124.4			
	Third Quarter	77.9		Third Quarter	124.9			
	Fourth Quarter	79.1		Fourth Quarter	125.8			
		Total 1990	307.4	Total 1997	497.3			

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *October 2002 Monitoring Report* (October 2002). Email from Martin Selzer, Manager, National Exchange Carrier Association, to Alexander Belinfante, Economist, Federal Communications Commission (July 15, 2003, 04:42 PM) (on file with recipient).



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 Cellular Telecommunications & Internet Association (CTIA) periodically publishes summary information on the industry. CTIA can be found on the Internet at www.wow-com.com.

Table 11.1 shows three measures of mobile wireless subscribers over time. In 1984 there were 92,000 subscribers, as compared with approximately 140 million subscribers as of December 31, 2002. Table 11.2 shows the number of wireless subscribers per state as of December 31, 2002 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 \$75 billion in 2002. The table also shows that the industry had over 192,000 employees as of December 31, 2002, 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 \$48.40 as of December 2002.

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, and in some cases, interLATA from intraLATA calls.

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.

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 pattern is clearly weakening. Interstate calls rose from 10% to 14% of the total from 2000 to 2002 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 2002 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 27% 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 calls made at night increased, but from about 30% of the total in 2000 to 41% in 2002. Similarly, weekend interstate calling rose from about 31% in 2000 to 41% in 2002.

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	122,400	128,493
2002 June	134,561	128,846	136,927
December	140,767	136,261	141,776

¹ Carriers with under 10,000 lines in a state are not required to report.

² FCC Form 502 (Number Resources Utilization/Forecasting) measures assigned wireless numbers.

Source: Cellular Telecommunications & Internet Association (CTIA) and FCC Forms 477 and 502.

Table 11.2
Mobile Wireless Telephone Subscribers ¹

	Dec 2002 Reporting Carriers ¹	Dec 2002 Percent Resold ²	Subscribers							Percent Change Dec 01 - Dec 02
			Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	
Alabama	11	6 %	1,080,410	1,253,084	1,386,294	1,930,631	1,924,476	1,955,223	1,937,956	1 %
Alaska	4	8	165,221	169,892	*	218,424	240,216	242,133	267,630	11
Arizona	13	3	1,125,321	1,624,668	1,855,115	2,018,410	2,171,021	2,412,998	2,520,058	16
Arkansas	7	3	719,919	715,467	743,928	891,275	970,127	1,130,302	1,148,493	18
California	16	4	8,544,941	12,283,369	12,710,520	14,184,625	14,997,358	15,875,264	17,406,588	16
Colorado	9	2	1,552,718	1,654,989	1,856,075	1,983,405	2,145,816	2,247,166	2,358,748	10
Connecticut	6	3	1,077,089	1,136,618	1,277,123	1,418,367	1,616,937	1,558,076	1,665,314	3
Delaware	5	2	270,848	275,219	371,014	389,284	412,611	433,049	437,149	6
Dist. of Columbia	6	7	346,681	333,815	354,735	382,457	404,489	415,393	471,508	17
Florida	11	8	5,158,079	4,983,478	6,369,985	7,536,670	8,521,734	8,139,321	8,646,145	1
Georgia	14	6	2,538,983	2,687,238	2,754,784	4,076,119	4,020,010	4,171,843	4,390,786	9
Guam	*	*	*	*	0	*	*	*	*	NA
Hawaii	6	1	288,425	454,364	524,291	543,283	595,721	640,246	689,573	16
Idaho	10	8	271,436	296,066	344,564	398,781	444,864	500,693	536,064	21
Illinois	10	5	3,922,482	4,309,660	5,143,767	5,621,044	5,631,172	5,406,664	6,401,620	14
Indiana	8	7	1,318,975	1,717,378	1,715,074	1,781,247	1,897,049	1,999,451	2,355,785	24
Iowa	12	9	774,773	975,629	832,106	861,382	1,087,608	1,157,580	1,239,384	14
Kansas	12	3	669,472	724,024	801,293	901,225	956,050	1,061,154	1,113,429	16
Kentucky	10	6	911,700	999,544	1,026,334	1,176,756	1,307,988	1,402,802	1,393,060	7
Louisiana	10	11	1,227,106	1,294,693	1,306,457	1,677,292	1,838,244	2,086,529	2,107,123	15
Maine	5	1	187,003	283,640	359,786	399,616	427,313	457,835	466,896	9
Maryland	8	2	1,634,625	2,013,058	2,298,651	2,446,818	2,614,216	2,684,441	2,909,412	11
Massachusetts	6	2	1,892,014	2,228,169	2,649,130	2,753,685	2,988,667	3,274,877	3,360,493	12
Michigan	14	7	3,512,813	3,423,535	3,551,719	4,071,091	4,238,399	4,710,370	4,517,129	7
Minnesota	12	5	1,550,411	1,595,560	1,851,430	2,014,317	2,153,857	2,254,895	2,415,033	12
Mississippi	11	12	673,355	509,038	786,577	993,781	980,918	1,039,739	1,053,049	7
Missouri	11	5	1,855,452	1,848,775	1,767,411	1,937,684	2,106,599	2,246,299	2,275,473	8
Montana	4	1	*	*	*	*	279,349	291,429	315,512	13
Nebraska	8	2	576,296	600,885	659,380	712,685	791,799	838,568	867,810	10
Nevada	8	5	750,335	825,163	684,752	766,581	842,155	893,788	983,075	17
New Hampshire	8	11	280,508	309,263	387,264	445,181	492,112	529,498	525,450	7
New Jersey	6	2	2,289,181	2,750,024	3,575,130	3,896,778	4,283,643	4,530,663	4,582,403	7
New Mexico	10	10	363,827	395,111	443,343	619,582	660,849	735,107	780,855	18
New York	12	4	4,833,816	5,016,524	5,918,136	6,749,096	7,247,181	7,713,977	8,898,347	23
North Carolina	12	6	2,536,068	2,730,178	3,105,811	3,377,331	3,605,441	4,429,832	3,940,796	9
North Dakota	*	*	*	*	*	*	*	245,578	*	NA
Ohio	14	4	3,237,786	3,278,960	4,150,498	4,255,934	4,739,795	4,887,335	5,179,806	9
Oklahoma	12	3	826,637	979,513	1,124,214	1,200,234	1,288,357	1,366,437	1,432,527	11
Oregon	11	3	914,848	1,082,425	1,201,207	1,268,909	1,399,279	1,473,883	1,682,343	20
Pennsylvania	11	3	2,767,474	3,850,372	4,129,186	4,378,216	4,849,085	4,986,819	5,249,163	8
Puerto Rico	6	12	*	1,090,005	757,613	1,374,747	1,128,736	1,136,619	1,254,203	11
Rhode Island	6	2	279,304	313,550	355,889	401,805	454,936	461,004	512,389	13
South Carolina	10	15	1,137,232	1,236,338	1,392,586	1,502,345	1,625,392	1,724,156	1,781,083	10
South Dakota	5	7	*	*	*	*	278,646	292,210	325,114	17
Tennessee	12	3	1,529,054	1,876,444	1,985,851	2,251,208	2,443,483	2,573,801	2,626,423	7
Texas	19	5	5,792,453	6,705,423	7,548,537	8,294,338	9,062,064	9,521,985	9,943,429	10
Utah	10	2	643,824	692,006	750,244	833,492	919,002	970,854	1,052,522	15
Vermont	*	*	*	*	*	*	*	*	*	NA
Virgin Islands	*	*	*	0	0	*	*	*	*	NA
Virginia	12	3	2,262,567	2,447,687	2,708,342	3,059,420	3,270,165	3,429,450	3,749,893	15
Washington	11	4	1,873,475	2,144,767	2,286,082	2,493,214	2,706,030	2,846,197	2,866,458	6
West Virginia	9	9	241,265	347,916	392,384	452,036	498,811	549,721	576,339	16
Wisconsin	10	7	1,525,818	1,342,908	1,698,520	2,008,679	2,229,389	2,522,479	2,384,977	7
Wyoming	4	2	127,634	*	*	173,939	194,665	168,232	191,939	-1
Nationwide	85	5 %	79,696,083	90,643,058	101,043,219	114,028,928	122,399,943	128,845,821	136,261,491	11 %

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 December 31, 2002* (June 2003).

Table 11.3
Mobile Wireless Telephone Service: Industry Survey Results
(As Reported by Cellular Telecommunications & Internet 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

Source: Cellular Telecommunications & Internet Association (CTIA).

Table 11.4
Distribution of Residential Wireless Calls and Minutes ¹

Type	2000	2001	2002
Calls			
Intrastate			
IntraLATA	74 %	71 %	68 %
InterLATA	5	6	7
Unclassified ²	5	6	6
Total Intrastate	<u>85</u>	<u>83</u>	<u>81</u>
Interstate			
IntraLATA	3	2	2
InterLATA	6	7	10
Unclassified ²	2	2	2
Total Interstate	<u>10</u>	<u>12</u>	<u>14</u>
Others ³	5	5	5
Total Calls in Sample	229,329	327,295	495,825
Minutes			
Intrastate			
IntraLATA	69 %	61 %	56 %
InterLATA	8	9	10
Unclassified ²	5	6	6
Total Intrastate	<u>81</u>	<u>76</u>	<u>72</u>
Interstate			
IntraLATA	3	2	2
InterLATA	11	17	21
Unclassified ²	3	3	3
Total Interstate	<u>16</u>	<u>22</u>	<u>26</u>
Others ³	2	2	2
Total Minutes in Sample	592,253	944,135	1,605,977

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

¹ Outgoing, itemized calls only.

² Cross-LATA status undetermined in the data. All 7-digit dialed calls are considered intrastate, unclassified. 800-type calls are allocated over the interstate, unclassified and intrastate, unclassified categories based on the interstate and intrastate shares of wireline dial equipment minutes.

³ 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*TM, *Bill Harvesting*[®].

Table 11.5
Duration of Residential Wireless Calls: 2002 ¹

Duration of Call (Minutes)	Intrastate	Interstate	All Calls
1	51.7 %	39.4 %	50.1 %
2	22.4	18.9	21.9
3	8.4	7.4	8.3
4	4.5	4.8	4.5
5	2.9	3.4	2.9
6	2.0	2.8	2.1
7	1.4	2.2	1.5
8	1.1	1.9	1.2
9	0.8	1.7	0.9
10	0.7	1.4	0.8
11-15	2.0	5.1	2.4
16-20	0.9	3.2	1.2
21-25	0.5	2.1	0.7
26-30	0.3	1.5	0.4
31-45	0.4	2.3	0.6
46-60	0.1	0.9	0.2
> 60	0.1	0.9	0.2
Average Duration	2.9	6.3	3.3
Median Duration	1.0	2.0	1.0
Sample Size	397,153	61,480	458,633

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

¹ Outgoing, itemized calls only. All 7-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

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
Total	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

2000

Day	7:00 AM - 6:59 PM	7:00 PM - 6:59 AM	Total
Monday	10.4 %	3.8 %	14.2 %
Tuesday	10.5	3.8	14.3
Wednesday	11.0	3.9	14.9
Thursday	11.3	3.9	15.3
Friday	12.2	4.2	16.3
Saturday	10.1	3.8	13.9
Sunday	7.7	3.5	11.2
Total	73.1 %	26.9 %	100.0 %

Calls in sample = 190,227

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

¹ Outgoing, itemized calls only. All 7-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*TM, *Bill Harvesting*[®].

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

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
Total	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 %	%
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 %	87.2 %

Calls in sample = 33,026

2000

Day	7:00 AM - 6:59 PM	7:00 PM - 6:59 AM	Total
Monday	8.6 %	4.7 %	13.3 %
Tuesday	9.1	4.9	14.0
Wednesday	9.5	4.0	13.5
Thursday	10.5	3.8	14.3
Friday	9.5	4.0	13.6
Saturday	12.1	3.4	15.5
Sunday	11.0	4.8	15.9
Total	70.4 %	29.6 %	100.0 %

Calls in sample = 19,823

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

¹ Outgoing, itemized calls only. All 7-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*TM, *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.

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 rate of change is shown in Table 12.2 for the overall CPI (which measures the impact of inflation on consumers) and the CPI for telephone services. 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.

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.

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

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)

	1935 - 2002	1990 - 2002
CPI All Items	3.9 %	2.9 %
CPI All Services	4.4	3.6
CPI Telephone Services ¹	1.9	0.6
CPI Major Categories:		
- Food & Beverages	*	2.5
- Housing	*	2.9
- Apparel	2.8	0.4
- Transportation	3.7	2.0
- Medical Care	5.1	4.8
- Recreation ²	*	1.8
- Other Goods & Services	*	5.2
CPI Public Transportation	4.9	3.7
CPI Utility Natural Gas Service	3.8	2.9
CPI Electricity	2.3	1.4
CPI Sewer & Water Maintenance	*	4.1
CPI Postage	4.2	3.0

* Series not established until after 1935.

¹ The CPI telephone service index was revised in December of 1997.

² Series not established until 1993. Figure reflects annual change between 1993 and 2002.

Source: Bureau of Labor Statistics.

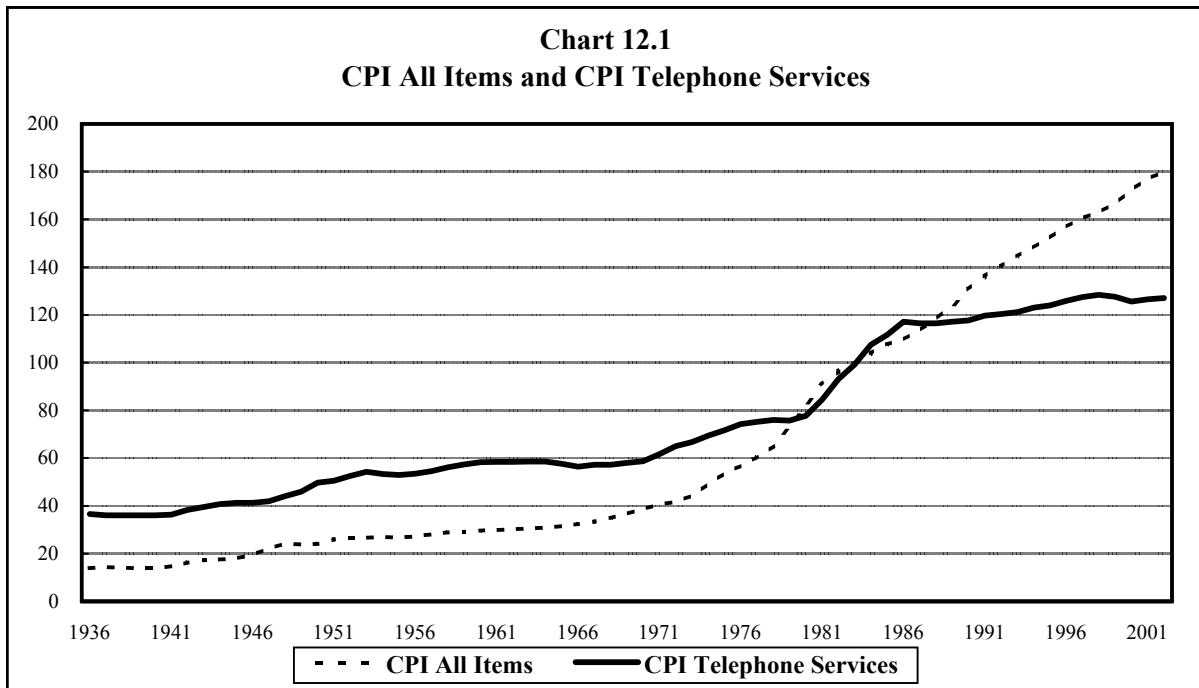


Table 12.2
Annual Changes in Major Price Indices

	GDP Chain-Type Price Index	CPI - All Items	CPI - Telephone Services
1978	7.1 %	9.0 %	0.9 %
1979	8.3	13.3	0.7
1980	9.2	12.5	4.6
1981	9.3	8.9	11.7
1982	6.2	3.8	7.2
1983	3.9	3.8	3.6
1984	3.7	3.9	9.2
1985	3.2	3.8	4.7
1986	2.2	1.1	2.7
1987	3.0	4.4	-1.3
1988	3.4	4.4	1.3
1989	3.8	4.6	-0.3
1990	3.9	6.1	-0.4
1991	3.6	3.1	3.5
1992	2.4	2.9	-0.3
1993	2.4	2.7	1.8
1994	2.1	2.7	0.7
1995	2.2	2.5	1.2
1996	1.9	3.3	2.1
1997	1.9	1.7	0.2
1998	1.2	1.6	0.3 *
1999	1.4	2.7	0.4
2000	2.1	3.4	-2.3
2001	2.4	2.8	0.8
2002	1.1	1.6	0.4

* The CPI telephone service index was revised in December of 1997.

Sources: Bureau of Labor Statistics and Bureau of Economic Analysis.

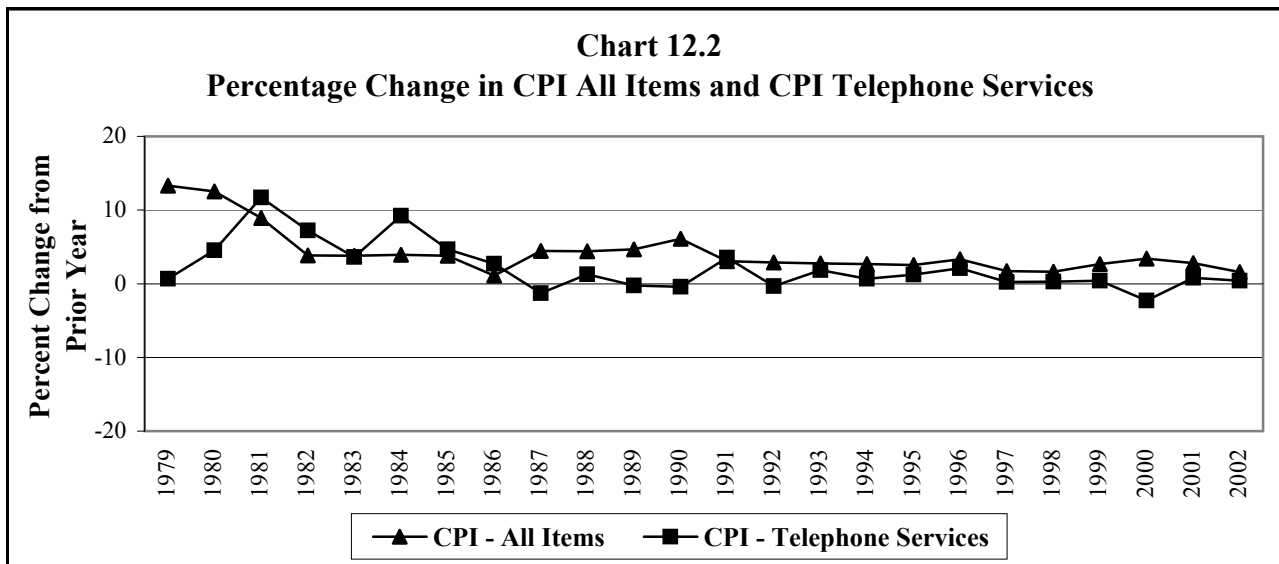


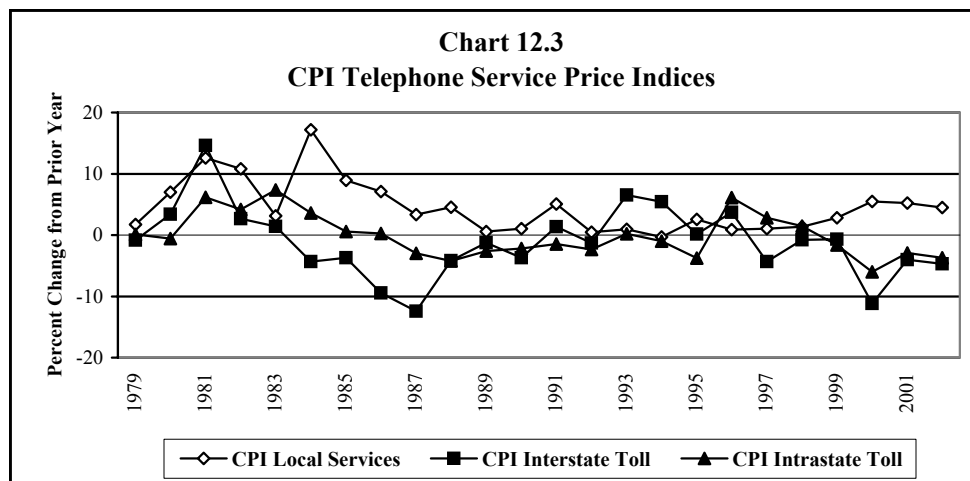
Table 12.3
Annual Changes in Price Indices
for Local and Long Distance Telephone Services

	Local Residential Service		Toll Service ¹			
	CPI	PPI	Interstate		Intrastate	
			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	5.2	2.2	-4.0	-5.5	-2.9	0.7
2002	4.5	2.2	-4.7	-17.7	-3.7	0.8

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. Due to substantial month-to-month variation in the new PPI indices, PPI price levels are determined using a five-month weighted average.

Source: Bureau of Labor Statistics.



13 Price Levels

1. Local Rate Levels

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 2002 the monthly charge was \$23.38, while the average charge for connecting phone service was \$42.39.

Table 13.2 presents average local rates for a business with a single phone line in an urban area. In October 2002, the representative monthly charge was \$43.59 while the charge for connecting phone service was \$72.35.

2. Long Distance Rates

Table 13.3 presents the average local rate for a residential phone line from 1940 to 2002. 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.

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 2001, the cost of long distance calling dropped from 32 cents per minute to 10 cents per minute. The average price of 10 cents per minute represents a mix of international calling (35 cents per minute) and domestic interstate calling (8 cents per minute). The decline in prices since 1984 is more than 80% after adjusting for the impact of inflation.

Table 13.1
Average Residential Rates for Local Service in Urban Areas, 1986-2002
(As of October 15)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Representative Monthly Charge ¹	\$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	\$14.55
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	5.64
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	0.04
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	3.14
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	\$23.38
Basic Connection Charge	\$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	\$39.57
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	0.12
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	2.70
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	\$42.39
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
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	\$3.61

NA - Not Available.

¹ Rates are based on flat-rate service where available, and measured/message service with one hundred 5-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.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service* (July 2003).

Table 13.2
Average Local Rates for Businesses with a Single Line in Urban Areas, 1989 - 2002
(As of October 15)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Monthly Representative Service Charge ¹	\$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	\$32.12
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	5.38
Extra for Touch-Tone Service	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	0.14
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	5.95
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	\$43.59
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	\$33.34
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	5.73
Extra for Touch-Tone Service	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	0.30
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	6.88
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	\$46.25
Number of Sample Cities with Flat-Rate Service	59	56	54	54	54	53	53	53	53	54	54	54	56	56
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	\$17.44
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	17.24
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	5.33
Extra for Touch-Tone Service	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	0.14
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	6.26
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	\$46.40
Number of Sample Cities with Measured/Message Service	83	83	84	84	84	87	87	86	85	85	85	85	85	86
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
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	\$67.25
Additional Connection Charge for Touch-Tone Service	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	0.12
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	4.97
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	\$72.35
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	\$6.63
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	\$4.95

¹ Rates are based on flat-rate service where available, and measured/message service with 200 five-minute, same-zone, business-day calls elsewhere.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service* (July 2003).

Table 13.3
Average Rate for a Residential Access Line

	Consumer Price Index	Average Rate for a Residential Access Line			Consumer Price Index	Average Rate for a Residential Access Line	
		Survey Rate	Restated in 2002 Dollars			Survey Rate	Restated in 2002 Dollars
	All Goods and Services (1982-1984 = 100)				All Goods and Services (1982-1984 = 100)		
1940	14.0	\$3.67	\$47.16	1980	82.4	\$8.61	\$18.80
1941	14.7	3.67	44.91	1981	90.9	9.16	18.13
1942	16.3	3.64	40.17	1982	96.5	10.18	18.98
1943	17.3	3.64	37.85	1983	99.6	13.58	24.53
1944	17.6	3.66	37.41	1984	103.9	15.18	26.28
1945	18.0	3.67	36.68	1985	107.6	16.26	27.19
1946	19.5	3.67	33.86	1986	109.6	17.70	29.05
1947	22.3	3.70	29.85	1987	113.6	18.18	28.79
1948	24.1	3.91	29.19	1988	118.3	18.11	27.54
1949	23.8	4.02	30.39	1989	124.0	19.05	27.64
1950	24.1	4.29	32.02	1990	130.7	19.24	26.48
1951	26.0	4.48	31.00	1991	136.2	19.77	26.11
1952	26.5	4.62	31.36	1992	140.3	19.72	25.29
1953	26.7	4.93	33.22	1993	144.5	19.95	24.84
1954	26.9	5.10	34.11	1994	148.2	19.81	24.05
1955	26.8	5.19	34.84	1995	152.4	20.01	23.62
1956	27.2	5.24	34.66	1996	156.9	19.95	22.87
1957	28.1	5.28	33.80	1997	160.5	19.88	22.28
1958	28.9	5.36	33.37	1998	163.0	19.76	21.81
1959	29.1	5.51	34.06	1999	166.6	19.93	21.52
1960	29.6	5.55	33.73	2000	172.2	20.78	21.71
1961	29.9	5.61	33.75	2001	177.1	22.62	22.98
1962	30.2	5.62	33.48	2002	179.9	23.38	23.38
1963	30.6	5.65	33.22				
1964	31.0	5.66	32.85				
1965	31.5	5.67	32.38				
1966	32.4	5.64	31.32				
1967	33.4	5.60	30.16				
1968	34.8	5.61	29.00				
1969	36.7	5.68	27.84				
1970	38.8	5.76	26.71				
1971	40.5	6.04	26.83				
1972	41.8	6.38	27.46				
1973	44.4	6.69	27.11				
1974	49.3	7.08	25.84				
1975	53.8	7.32	24.48				
1976	56.9	7.81	24.69				
1977	60.6	8.07	23.96				
1978	65.2	8.31	22.93				
1979	72.6	8.40	20.81				

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*, Common Carrier Bureau, October 1995. 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			Consumer Price Index	Average Revenue Per Minute for Interstate and International Calls		International Calls 1/	Domestic Calls
	All Goods and Services (1982-1984 = 100)		Restated in 2001 Dollars		All Goods and Services (1982-1984 = 100)		Restated in 2001 Dollars		
1930	16.7	\$0.27	\$2.91	1970	38.8	\$0.23	\$1.05		
1931	15.2	0.27	3.14	1971	40.5	0.25	1.07		
1932	13.7	0.26	3.39	1972	41.8	0.24	1.03		
1933	13.0	0.28	3.75	1973	44.4	0.25	1.01		
1934	13.4	0.27	3.60	1974	49.3	0.26	0.92		
1935	13.7	0.27	3.43	1975	53.8	0.27	0.90		
1936	13.9	0.25	3.20	1976	56.9	0.29	0.89		
1937	14.4	0.22	2.67	1977	60.6	0.28	0.83		
1938	14.1	0.21	2.69	1978	65.2	0.29	0.78		
1939	13.9	0.22	2.75	1979	72.6	0.29	0.71		
1940	14.0	0.21	2.66	1980	82.4	0.30	0.65		
1941	14.7	0.21	2.50	1981	90.9	0.33	0.64		
1942	16.3	0.22	2.34	1982	96.5	0.34	0.63		
1943	17.3	0.21	2.15	1983	99.6	0.35	0.62		
1944	17.6	0.22	2.17	1984	103.9	0.32	0.55		
1945	18.0	0.21	2.09	1985	107.6	0.31	0.51		
1946	19.5	0.20	1.79	1986	109.6	0.28	0.45		
1947	22.3	0.19	1.52	1987	113.6	0.25	0.38		
1948	24.1	0.19	1.37	1988	118.3	0.23	0.35		
1949	23.8	0.19	1.40	1989	124.0	0.22	0.31		
1950	24.1	0.19	1.42	1990	130.7	0.20	0.27		
1951	26.0	0.20	1.37	1991	136.2	0.20	0.26		
1952	26.5	0.20	1.35	1992	140.3	0.19	0.24	\$1.01	\$0.15
1953	26.7	0.21	1.38	1993	144.5	0.19	0.24	1.02	0.15
1954	26.9	0.22	1.47	1994	148.2	0.18	0.21	0.93	0.14
1955	26.8	0.23	1.52	1995	152.4	0.17	0.20	0.91	0.12
1956	27.2	0.23	1.52	1996	156.9	0.16	0.18	0.76	0.12
1957	28.1	0.24	1.50	1997	160.5	0.15	0.16	0.69	0.11
1958	28.9	0.24	1.46	1998	163.0	0.14	0.16	0.58	0.11
1959	29.1	0.24	1.47	1999	166.6	0.14	0.15	0.54	0.11
1960	29.6	0.24	1.44	2000	172.2	0.12	0.12	0.52	0.09
1961	29.9	0.25	1.47	2001	177.1	0.10	0.10	0.35	0.08
1962	30.2	0.25	1.48						
1963	30.6	0.25	1.44						
1964	31.0	0.25	1.42						
1965	31.5	0.24	1.35						
1966	32.4	0.24	1.33						
1967	33.4	0.24	1.29						
1968	34.8	0.24	1.20						
1969	36.7	0.24	1.16						

Note: Data for some prior years have been revised.

1/ 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 2003), available at www.fcc.gov/wcb/stats.

14 Residential Telephone 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. 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 long distance telephone usage that is intrastate, interstate and international. In 2002, 35% of residential toll phone calls were interstate as opposed to 47% of minutes. Table 14.2 shows the average number of toll calls on residential phone bills that are intrastate, interstate and international from 1995-2002.

Table 14.3 shows the distribution of residential 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 intrastate and interstate long distance calls, respectively. The average distance of an interstate call is 692 miles, as opposed to 52 miles for an intrastate call.

Table 14.6 shows the percentage of residential long distance minutes by day of week and time of day. In the 2002 survey, 39% of residential minutes were on weekdays between 7:00 a.m. and 7:00 p.m., and 33% of residential minutes were on weekends.

Table 14.1
Distribution of Residential Toll Calls and Minutes

Type	1995	1996	1997	1998	1999	2000	2001	2002
Calls								
IntraLATA-Intrastate	41 %	40 %	38 %	38 %	39 %	39 %	42 %	44 %
InterLATA-Intrastate	19	18	19	19	18	17	18	17
IntraLATA-Interstate	1	1	1	1	1	1	1	1
InterLATA-Interstate	37	35	37	36	37	36	36	34
International	1	1	1	1	1	1	1	1
Others ¹	2	5	5	4	4	5	2	2
Total Calls in Sample	197,787	165,465	483,685	578,850	474,408	538,337	456,328	427,781
Minutes								
IntraLATA-Intrastate	28 %	29 %	27 %	27 %	28 %	29 %	30 %	32 %
InterLATA-Intrastate	18	18	18	18	17	17	18	18
IntraLATA-Interstate	1	1	1	1	1	1	1	1
InterLATA-Interstate	50	47	49	49	49	47	48	46
International	2	1	1	1	2	2	2	2
Others ¹	1	4	4	3	3	5	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

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

¹ Toll-free 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*TM, *Bill Harvesting*[®].

Table 14.2
Average Residential Monthly Toll Calls

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

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

¹ Toll-free 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*TM, *Bill Harvesting*[®].

Table 14.3
Distribution of Residential Long Distance Call Durations: 2002 ¹

Duration of Call (Minutes)	Intrastate	Interstate	All Calls
1	45.1 %	35.2 %	41.4 %
2	13.1	9.6	11.8
3	8.1	7.1	7.7
4	4.8	4.1	4.6
5	3.4	3.4	3.4
6	2.8	2.8	2.8
7	2.2	2.4	2.3
8	1.8	2.2	2.0
9	1.6	2.0	1.7
10	3.6	4.9	4.1
11-15	4.8	7.5	5.8
16-20	2.8	5.2	3.7
21-25	1.7	3.6	2.5
26-30	1.2	2.5	1.7
31-45	1.7	4.2	2.6
46-60	0.6	1.7	1.0
> 60	0.6	1.6	1.0
Average Duration	5.6	9.4	7.1
Median Duration	2.0	3.0	2
Sample Size	231,835	139,400	371,235

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*TM, *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

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*TM, *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
1999r	10.0	3.9	693	501
2000r	10.0	4.0	706	524
2001r	9.7	3.0	686	501
2002r	9.4	3.0	692	489

r - Revised

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*TM, *Bill Harvesting*[®].

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

2002

Day	7am-6:59pm	7pm-6:59am	Total
Monday	8.3 %	6.0 %	14.3 %
Tuesday	8.2	6.0	14.2
Wednesday	7.5	5.9	13.4
Thursday	7.5	5.7	13.1
Friday	7.5	4.7	12.2
Saturday	9.8	4.3	14.1
Sunday	11.9	6.7	18.6
Total	60.6 %	39.4 %	100.0 %

¹ Based on a sample of 215,687 directly dialed, interLATA calls.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*TM, *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. Some estimates for 2002 have been made based on data filed on the FCC Form 499-Q filings.

Table 15.1 shows the major components of telecommunications revenues for 2001: carrier's carrier revenues and end-user revenues for local, wireless, and toll service. Table 15.2 shows how local, wireless, and toll revenues 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 (preliminary) by type of carrier. Additional revenue detail can be found in the latest *Telecommunications Industry Revenues* report (March 2003 edition).

The publication *Telecommunications Provider Locator* (January 2003 edition) lists 5,364 carriers that filed a FCC Form 499-A worksheet in 2002. 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 2001. Table 15.6 provides estimates of end-user and carrier's carrier revenues by state for 2001. 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 2001.

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 2001 use a similar methodology as those used in 2000.

Table 15.1
Telecommunications Industry Revenues: 2001 1/
(Dollar Amounts Shown in Millions)

	Carrier's Carrier Revenues 2/	End-User Revenues 2/	Total Revenues
Local Service 3/	\$40,108	\$87,704	\$127,812
Wireless Service	6,180	68,507	74,687
Toll Service	19,999	79,302	99,301
Total	66,287	235,513	301,800
Service Reported as:			
Intrastate	27,848	155,347	183,195
Interstate and International 4/	38,439	80,165	118,605
Total	\$66,287	\$235,513	\$301,800

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, but are not included in the universal service contribution base.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2003).

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

Telecommunications Revenues	TRS Data					Universal Service & TRS Data		FCC Form 499-A Data		
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Local Exchange	\$39,235	\$40,176	\$42,245	\$45,194	\$48,717	\$53,771	\$59,245	\$62,840	\$67,747	\$72,346
Pay Telephone 1/						2,182	2,536	2,218	1,932	1,585
Local Private Line 2/	1,049	1,088	1,138	1,226	1,616	8,282	10,403	12,914	16,864	21,966
Other Local 3/	7,687	8,002	8,302	10,428	10,543	2,847	2,179	4,601	5,449	3,391
Subscriber Line Charges 2/						8,327	11,052	10,826	11,563	12,127
Access 2/	29,353	30,832	32,759	33,911	35,641	21,423	18,449	18,105	17,017	15,096
Universal Service Surcharges on Local Service Bills 4/							103	260	575	1,301
Additional Revenues from TRS Worksheets						595	595			
Total Local Service Revenues	77,324	80,098	84,443	90,759	96,516	97,426	104,563	111,764	121,147	127,812
Wireless Service	7,285	10,237	14,293	18,759	26,049	32,760	36,240	48,117	61,505	74,006
Universal Service Surcharges on Local Service Bills 4/							345	379	495	681
Additional Revenues from TRS Worksheets						189	189			
Total Wireless Service Revenues	7,285	10,237	14,293	18,759	26,049	32,950	36,775	48,495	62,000	74,687
Operator 1/	9,465	10,772	10,539	11,170	10,975	12,002	12,205	10,049	11,406	10,389
Non-Operator Switched Toll	54,448	60,591	61,468	65,217	73,751	72,059	74,168	78,389	75,183	65,325
Long Distance Private Line	7,783	8,067	9,043	9,719	10,665	10,504	11,952	13,169	16,189	16,402
Other Long Distance	4,048	3,095	3,428	3,523	4,299	4,695	3,386	3,656	3,372	3,259
Universal Service Surcharges on Local Service Bills 4/							1,810	2,983	3,467	3,927
Additional Revenues from TRS Worksheets						1,532	1,532			
Total Toll Service Revenues	75,744	82,525	84,478	89,629	99,691	100,793	105,055	108,246	109,615	99,301
Non-Telecommunications Revenues Formerly Reported as Other										
Local and Wireless Revenues 3/	(6,944)	(7,518)	(8,324)	(9,071)	(10,474)					
Total Telecommunications Revenues 3/	153,409	165,342	174,890	190,076	211,782	231,168	246,392	268,505	292,762	301,800
Non-Telecommunications Revenues 3/	6,944	7,518	8,324	9,071	10,474	25,633	27,944	33,144	42,261	48,036
Total Reported Revenues	160,353	172,860	183,214	199,147	222,256	256,801	272,019	301,648	335,023	349,835
Service Reported as:										
Intrastate 3/	82,379	89,409	94,278	103,852	117,375	133,654	142,108	157,212	173,018	183,195
Interstate and International	71,030	75,933	80,611	86,224	94,407	97,514	104,284	111,293	119,745	118,605
Total Telecommunications Revenues 3/	\$153,409	\$165,342	\$174,890	\$190,076	\$211,782	\$231,168	\$246,392	\$268,505	\$292,762	\$301,800

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

- 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. 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 revenue.
- 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 2003).

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

Service Provider Category 1/ 2/	Preliminary											
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
Incumbent Local Exchange Carriers (ILECs) 3/		1,281	1,347	1,347	1,376	1,410	1,348	1,318	1,335	1,335	1,337	
Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs)		20	30	57	94	129	212	298	479	511	609	
Local Resellers					8	11	54	73	105	132	133	
Other Local Exchange Carriers					17	7	10	23	23	26	65	
Total: Competitors of ILECs		20	30	57	119	147	276	394	607	669	807	
Total: Fixed Local Service Providers 4/		1,301	1,377	1,404	1,495	1,557	1,624	1,712	1,942	2,004	2,144	
Payphone Providers		163	197	271	533	509	615	704	699	751	761	
Wireless Telephony Including Cellular, Personal Communications Service (PCS) and SMR Telephony Carriers		798	790	792	853	732	808	784	783	670	719	
Paging & Messaging Service		126	117	138	200	137	303	391	425	425	433	
Specialized Mobile Radio (SMR) Dispatch					163	99	119	199	191	182	194	
Wireless Data Service Providers					1	1	5	6	4	4	5	
Other Mobile Service Providers							23	39	27	25	36	
Total: Wireless Service Providers		924	907	930	1,217	969	1,235	1,419	1,430	1,306	1,387	
Interexchange Carriers (IXCs)		83	97	130	149	151	171	178	212	233	261	
Operator Service Providers (OSPs)		35	29	25	27	32	24	15	20	19	23	
Prepaid Calling Card Providers				8	16	18	20	18	23	27	37	
Satellite Service Carriers					22	13	13	17	25	34	34	
Toll Resellers		171	206	260	345	340	388	406	493	558	625	
Other Toll Carriers		32	34	30	28	15	31	17	35	69	92	
Total: Toll Service Providers		321	366	453	587	569	647	651	808	940	1,072	
All Filers		2,558	2,709	2,847	3,058	3,832	3,604	4,121	4,486	4,879	5,001	5,364

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 service providers.

2/ Counts through 2001 are based on the numbers of filers actually reporting revenues. The preliminary 2002 counts include all entities that filed an FCC Form 499-A by November 22, 2002. This group comprises entities that offered telecommunications service in 2001 and new filers during 2002. These figures may double count some firms that have been bought, sold or merged during the year and includes some firms that were not yet providing service in 2002.

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.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Provider Locator* (January 2003 and prior editions) and FCC Form 499-A filings.

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

Service Provider Category ^{1/}	TRS Worksheet Data					Universal Service & TRS Data		FCC Form 499 Data			
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Preliminary 2002
Incumbent Local Exchange Carriers ^{2/}	\$91,584	\$95,228	\$98,431	\$102,820	\$107,905	\$105,154	\$108,234	\$112,216	\$116,158	\$117,885	\$109,517
Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs)	69	191	281	623	1,011	1,919	3,348	5,652	9,814	12,998	16,603
Local Resellers						206	410	511	879	1,393	1,488
Other Local Exchange Carriers						157	36	171	11	329	356
Private Carriers						112	147	87	39	15	27
Shared-Tenant Service Providers						87	93	87	202	46	39
Total: Competitors of ILECs	69	191	281	623	1,011	2,481	4,034	6,508	10,945	14,781	18,512
Total: Fixed Local Service Providers	91,835	95,595	99,011	103,792	109,273	107,634	112,268	118,725	127,103	132,666	128,030
Total: Payphone Providers	183	175	300	349	357	933	1,101	1,213	972	836	201
Wireless Telephony Including Cellular, Personal Communications Service (PCS) and SMR Telephony Carriers ^{2/}	6,718	9,215	13,259	17,208	23,778	29,944	33,139	46,513	59,823	71,887	81,948
Paging & Messaging Service ^{2/}						2,861	3,161	3,232	3,102	2,197	1,215
Specialized Mobile Radio (SMR) Dispatch								186	191		211
Wireless Data Service Providers								63	36	214	217
Other Mobile Service Providers	670	964	938	1,419	2,121	225	731	159	128	110	361
Total: Wireless Service Providers	7,387	10,179	14,197	18,627	25,900	33,030	37,032	50,152	63,280	74,596	83,952
Interexchange Carriers (IXCs)	57,341	61,118	66,381	70,938	79,057	79,080	83,443	87,570	87,311	81,272	69,905
Operator Service Providers (OSPs)	558	695	536	500	461	603	590	337	635	611	564
Prepaid Calling Card Providers				16	238	519	888	866	727	133	72
Satellite Service Carriers						1,011	475	280	336	373	381
Toll Resellers	1,293	1,869	2,840	4,220	6,564	8,010	9,885	9,211	10,641	8,797	9,073
Other Toll Carriers	2,186	711	709	773	577	348	710	150	1,758	2,516	2,189
Total: Toll Service Providers	61,378	64,393	70,466	76,447	86,896	89,570	95,992	98,414	101,407	93,702	82,184
Non-Telecommunications Revenues in Prior-Year Data ^{2/}	(6,944)	(7,518)	(8,324)	(9,071)	(10,474)						
Other Adjustments ^{3/}	(248)	2,693	(461)	280	187	0	0	0	0	0	0
Total Telecommunications Revenues	\$153,409	\$165,342	\$174,890	\$190,076	\$211,782	\$231,168	\$246,392	\$268,505	\$292,762	\$301,799	\$294,367

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.

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.

3/ Other 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 2003). 2002 figures are preliminary and are based on FCC Form 499-Q filings.

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

	1995	1996	1997	1998	1999	2000	2001	Percent Change 1995-2001
Alabama	\$2,668	\$2,946	\$3,205	\$3,394	\$3,712	\$4,008	\$4,314	61.7 %
Alaska	464	518	561	590	664	717	770	65.9
American Samoa	NA	NA	NA	NA	NA	NA	13	NA
Arizona	2,842	3,249	3,667	3,958	4,359	4,972	5,205	83.1
Arkansas	1,534	1,719	1,885	2,005	2,303	2,315	2,593	69.0
California	22,379	25,100	27,236	28,692	29,384	33,577	35,398	58.2
Colorado	3,128	3,526	4,006	4,260	4,826	5,290	5,515	76.3
Connecticut	2,765	2,943	3,266	3,173	3,405	3,924	4,020	45.4
Delaware	492	567	627	685	788	875	883	79.4
District of Columbia	886	955	1,049	1,085	1,581	1,648	1,383	56.1
Florida	11,582	12,972	14,161	15,042	17,223	18,308	18,849	62.7
Georgia	5,335	6,004	6,849	7,469	8,479	8,919	9,624	80.4
Guam	NA	85	97	103	99	108	122	NA
Hawaii	775	841	930	969	1,009	1,177	1,208	55.9
Idaho	791	908	967	1,010	1,092	1,210	1,245	57.3
Illinois	7,916	8,920	10,069	10,948	11,983	13,516	12,860	62.5
Indiana	3,804	4,192	4,536	4,810	5,099	5,552	5,524	45.2
Iowa	1,888	2,039	2,163	2,268	2,441	2,340	2,652	40.5
Kansas	1,829	2,017	2,165	2,304	2,588	2,571	2,656	45.2
Kentucky	2,353	2,629	2,861	3,060	3,426	3,573	3,665	55.8
Louisiana	2,703	2,946	3,192	3,432	3,913	3,964	4,274	58.1
Maine	869	976	996	1,105	1,195	1,328	1,387	59.7
Maryland	3,767	4,234	4,625	4,911	5,176	5,783	6,202	64.7
Massachusetts	4,988	5,455	6,010	6,338	6,561	7,428	7,367	47.7
Michigan	6,444	7,246	7,983	8,523	9,530	9,937	9,889	53.4
Minnesota	3,064	3,461	3,864	4,115	4,617	4,877	4,934	61.0
Mississippi	1,584	1,734	1,877	2,017	2,283	2,486	2,633	66.2
Missouri	3,623	4,017	4,389	4,613	5,442	5,688	6,067	67.5
Montana	640	709	756	780	897	937	903	41.1
Nebraska	1,296	1,428	1,540	1,587	1,737	1,760	1,866	43.9
Nevada	1,099	1,324	1,489	1,592	1,884	1,954	2,160	96.5
New Hampshire	989	1,118	1,208	1,246	1,313	1,429	1,419	43.4
New Jersey	7,091	7,927	8,707	9,366	9,558	10,670	10,690	50.7
New Mexico	1,121	1,262	1,370	1,433	1,518	1,515	1,656	47.8
New York	14,983	16,026	17,120	17,935	19,700	20,903	21,771	45.3
North Carolina	5,394	6,104	6,613	7,297	8,006	8,619	8,811	63.4
North Dakota	481	587	596	599	660	731	699	45.3
Northern Mariana Isl.	15	18	21	30	34	32	43	192.6
Ohio	7,457	8,219	8,823	9,396	9,952	10,902	10,708	43.6
Oklahoma	1,996	2,179	2,410	2,552	2,727	2,915	3,116	56.1
Oregon	2,238	2,502	2,720	2,905	3,123	3,159	3,480	55.5
Pennsylvania	7,961	8,867	9,588	10,309	10,770	12,200	12,578	58.0
Puerto Rico	1,244	1,405	1,606	1,467	2,051	1,971	2,598	108.8
Rhode Island	686	761	839	859	946	1,012	989	44.2
South Carolina	2,653	2,849	3,053	3,393	3,790	4,047	4,147	56.3
South Dakota	488	584	602	635	716	763	712	45.7
Tennessee	3,467	3,880	4,302	4,553	4,928	5,256	5,574	60.8
Texas	12,871	14,563	15,943	17,576	19,032	21,405	21,617	68.0
Utah	1,112	1,284	1,443	1,557	1,790	1,998	2,090	88.0
Vermont	424	547	575	602	684	717	659	55.4
Virgin Islands	74	93	101	109	122	129	145	96.9
Virginia	5,061	5,646	6,179	6,576	7,020	8,013	8,506	68.1
Washington	3,995	4,438	4,613	5,080	5,703	6,253	6,260	56.7
West Virginia	1,143	1,240	1,337	1,383	1,437	1,625	1,735	51.9
Wisconsin	3,258	3,621	3,927	4,234	4,719	5,195	5,028	54.3
Wyoming	366	402	449	462	513	563	587	60.3
Total	\$190,076	\$211,782	\$231,168	\$246,392	\$268,505	\$292,762	\$301,800	58.8 %

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 2002), and Industry Analysis Division, Common Carrier Bureau, *State-by-State Telephone Revenue and Universal Service Data* (April 2001). Estimates for 2001 use a methodology that is similar to that used in 2000.

Table 15.6
Telecommunications Revenues by State: 2001
(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	\$1,082	\$2,372	\$3,454	\$509	\$351	\$860	\$1,591	\$2,723	\$4,314	1.43 %
Alaska	213	386	599	102	69	171	314	455	770	0.26
American Samoa	2	9	11	1	2	2	3	10	13	0.00
Arizona	1,645	2,424	4,068	713	424	1,137	2,358	2,847	5,205	1.72
Arkansas	663	1,331	1,994	330	268	598	993	1,599	2,593	0.86
California	8,233	19,400	27,633	3,980	3,785	7,765	12,213	23,185	35,398	11.73
Colorado	1,604	2,703	4,306	756	453	1,209	2,359	3,156	5,515	1.83
Connecticut	1,232	1,905	3,138	621	262	882	1,853	2,167	4,020	1.33
Delaware	312	391	703	122	58	180	434	448	883	0.29
District of Columbia	425	618	1,043	254	86	340	680	704	1,383	0.46
Florida	5,329	9,239	14,567	2,460	1,822	4,282	7,788	11,061	18,849	6.25
Georgia	2,468	5,049	7,517	1,355	753	2,108	3,823	5,801	9,624	3.19
Guam	33	62	95	16	11	27	49	73	122	0.04
Hawaii	337	622	959	150	99	249	487	720	1,208	0.40
Idaho	402	544	946	205	94	299	606	638	1,245	0.41
Illinois	3,432	6,777	10,209	1,547	1,104	2,651	4,979	7,880	12,860	4.26
Indiana	1,521	2,818	4,339	679	506	1,185	2,201	3,324	5,524	1.83
Iowa	767	1,300	2,066	350	237	586	1,116	1,536	2,652	0.88
Kansas	748	1,304	2,052	386	218	605	1,134	1,522	2,656	0.88
Kentucky	944	1,944	2,887	460	318	778	1,403	2,262	3,665	1.21
Louisiana	1,085	2,358	3,443	480	351	831	1,565	2,709	4,274	1.42
Maine	378	691	1,069	204	114	318	582	805	1,387	0.46
Maryland	1,843	3,056	4,899	783	520	1,303	2,626	3,576	6,202	2.06
Massachusetts	2,091	3,696	5,787	1,002	578	1,580	3,093	4,274	7,367	2.44
Michigan	2,348	5,461	7,809	1,060	1,020	2,080	3,408	6,481	9,889	3.28
Minnesota	1,368	2,463	3,831	671	432	1,103	2,039	2,895	4,934	1.63
Mississippi	669	1,466	2,135	306	193	498	974	1,659	2,633	0.87
Missouri	1,545	3,094	4,639	787	642	1,429	2,332	3,736	6,067	2.01
Montana	277	408	685	131	87	218	408	495	903	0.30
Nebraska	474	963	1,436	243	187	429	716	1,149	1,866	0.62
Nevada	781	915	1,696	329	135	464	1,110	1,050	2,160	0.72
New Hampshire	472	633	1,105	218	96	314	690	729	1,419	0.47
New Jersey	3,326	5,071	8,397	1,446	846	2,293	4,772	5,918	10,690	3.54
New Mexico	528	756	1,284	232	141	372	760	897	1,656	0.55
New York	5,415	11,474	16,889	2,801	2,082	4,883	8,216	13,555	21,771	7.21
North Carolina	2,332	4,520	6,851	1,066	894	1,960	3,397	5,414	8,811	2.92
North Dakota	190	331	521	108	69	178	298	401	699	0.23
Northern Mariana Islands	15	18	33	7	3	10	22	21	43	0.01
Ohio	2,709	5,691	8,400	1,268	1,040	2,308	3,977	6,731	10,708	3.55
Oklahoma	873	1,582	2,455	424	237	661	1,296	1,820	3,116	1.03
Oregon	1,048	1,626	2,673	501	305	806	1,549	1,931	3,480	1.15
Pennsylvania	3,315	6,400	9,715	1,537	1,327	2,864	4,852	7,727	12,578	4.17
Puerto Rico	470	1,598	2,069	278	251	529	749	1,849	2,598	0.86
Rhode Island	314	481	795	129	65	194	443	546	989	0.33
South Carolina	1,094	2,174	3,268	510	368	878	1,604	2,542	4,147	1.37
South Dakota	205	328	534	106	71	178	312	400	712	0.24
Tennessee	1,486	2,998	4,484	675	415	1,091	2,161	3,413	5,574	1.85
Texas	5,053	11,669	16,722	2,723	2,172	4,895	7,776	13,841	21,617	7.16
Utah	608	1,023	1,631	292	167	459	900	1,190	2,090	0.69
Vermont	216	284	501	109	49	158	326	333	659	0.22
Virgin Islands	52	58	110	25	10	35	77	68	145	0.05
Virginia	2,444	4,036	6,481	1,180	845	2,025	3,624	4,881	8,506	2.82
Washington	1,772	3,036	4,808	862	589	1,452	2,634	3,626	6,260	2.07
West Virginia	481	838	1,319	256	160	416	737	998	1,735	0.57
Wisconsin	1,313	2,690	4,004	600	424	1,024	1,913	3,114	5,028	1.67
Wyoming	184	267	451	93	43	136	278	309	587	0.19
Total	\$80,165	\$155,347	\$235,512	\$38,439	\$27,848	\$66,287	\$118,604	\$183,195	\$301,800	100.00 %

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

Source: Estimates for 2001 use a methodology that is similar to that used in 2000. See also: Industry Analysis and Technology Division, Wireline Competition Bureau, *Monitoring Report* (October 2002).

Table 15.7
Telecommunications Revenues by Type of Service: 2001
(Dollar Amounts Shown in Millions)

	Mobile						Total
	ILECs ¹	CLECs	Wireless	SLCs	Access	Toll	
Alabama	\$1,382	\$103	\$1,159	\$177	\$306	\$1,187	\$4,314
Alaska	NA	NA	NA	NA	NA	NA	770
American Samoa	NA	NA	NA	NA	NA	NA	13
Arizona	1,296	198	1,332	252	433	1,694	5,205
Arkansas	703	47	607	92	281	862	2,593
California	7,608	1,422	9,136	1,248	3,350	12,634	35,398
Colorado	1,584	278	1,312	250	457	1,634	5,515
Connecticut	1,000	140	869	168	372	1,471	4,020
Delaware	204	26	225	43	55	331	883
District of Columbia	425	106	269	46	146	390	1,383
Florida	4,835	737	4,280	861	1,791	6,345	18,849
Georgia	2,867	440	2,486	286	852	2,693	9,624
Guam	NA	NA	NA	NA	NA	NA	122
Hawaii	321	30	358	58	97	345	1,208
Idaho	310	10	283	59	148	435	1,245
Illinois	3,285	949	3,353	483	844	3,946	12,860
Indiana	1,449	154	1,319	262	474	1,868	5,524
Iowa	601	140	699	123	234	854	2,652
Kansas	714	103	608	103	260	868	2,656
Kentucky	1,134	46	914	161	323	1,087	3,665
Louisiana	1,414	93	1,124	189	273	1,182	4,274
Maine	352	38	253	57	151	537	1,387
Maryland	1,581	180	1,543	274	466	2,157	6,202
Massachusetts	1,563	491	1,755	326	598	2,633	7,367
Michigan	2,297	498	2,680	418	862	3,134	9,889
Minnesota	1,262	301	1,301	211	443	1,416	4,934
Mississippi	982	65	606	105	142	733	2,633
Missouri	1,532	191	1,578	236	691	1,839	6,067
Montana	238	11	169	42	102	342	903
Nebraska	543	108	451	71	182	511	1,866
Nevada	452	123	549	88	145	803	2,160
New Hampshire	303	35	297	63	127	593	1,419
New Jersey	2,051	256	2,443	505	931	4,503	10,690
New Mexico	419	9	404	82	163	580	1,656
New York	5,901	2,675	4,808	834	1,625	5,929	21,771
North Carolina	2,382	276	2,180	369	819	2,785	8,811
North Dakota	179	32	149	28	91	220	699
Northern Mariana Islands	NA	NA	NA	NA	NA	NA	43
Ohio	2,877	239	2,885	465	985	3,257	10,708
Oklahoma	842	107	796	126	258	986	3,116
Oregon	802	101	855	168	369	1,185	3,480
Pennsylvania	2,705	957	2,927	545	1,151	4,293	12,578
Puerto Rico	603	34	1,100	68	285	509	2,598
Rhode Island	233	42	260	46	57	350	989
South Carolina	1,267	72	1,017	164	347	1,280	4,147
South Dakota	164	25	163	30	90	240	712
Tennessee	1,686	232	1,559	235	344	1,518	5,574
Texas	6,020	1,612	5,451	783	2,017	5,733	21,617
Utah	500	124	573	93	183	616	2,090
Vermont	199	13	82	30	70	265	659
Virgin Islands	NA	NA	NA	NA	NA	NA	145
Virginia	1,942	343	1,985	348	913	2,975	8,506
Washington	1,397	196	1,596	288	682	2,102	6,260
West Virginia	528	18	324	75	204	587	1,735
Wisconsin	1,418	275	1,210	218	347	1,560	5,028
Wyoming	154	23	130	27	59	194	587
Total ²	\$76,768	\$14,780	\$74,673	\$12,328	\$26,691	\$96,555	\$301,800

NA - Not Applicable.

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

¹ Excludes subscriber line charges.

² Totals in the first six columns include revenues for locations not estimated.

Source: Estimates for 2001 use a methodology that is similar to that used in 2000. See also: Industry Analysis and Technology Division, Wireline Competition Bureau, *Monitoring Report* (October 2002).

16 Subscribership

Under contract with the FCC, the Bureau of the Census 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.

More than twenty-five 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**.

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 to avoid the possible bias from having a phone but no service. However, the decennial census percentage is still higher than the CPS percentage. With the telephone companies no longer owning the telephone instruments, however, it is possible for someone to have a telephone but not have service. This may account for some of the discrepancy between the 1990 percentages in Tables 16.1 and 16.4.

For other countries of the world, telephone development is often measured as the number of access lines per 100 people. This measure includes both residential and business lines. Historical estimates for the United States, using the decennial census population counts, are shown in Table 16.4.

The Bureau of the Census also includes questions on computers and Internet use as part of its Current Population Survey. Using this information, the National Telecommunications and Information Administration (NTIA) has periodically published a report examining which American households have access to telephones, computers, and the Internet, and which do not. Chart 16.1 shows the percent of households with a telephone, computer, and Internet use for 1994, 1997, 1998, August 2000 and September 2001. The percent of households may differ from Table 16.1 because a different monthly survey was used. The most recent NTIA report, *A Nation Online: How Americans Are Expanding Their Use of the Internet*, finds that the number of Americans connected to the nation's information infrastructure is soaring. According to this report, the rapid swing to new technologies is happening with most groups of Americans, "regardless of income, education, race or ethnicity location, age or gender." Their conclusion is that "digital inclusion is a reasonable goal." NTIA's web site can be accessed at www.ntia.doc.gov.

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

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telephone Subscribership in the United States* (April 2003).

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

State	November 1983	November 2002	Change
Alabama	87.9 %	92.0 %	4.1 %
Alaska	83.8	96.3	12.5 *
Arizona	88.8	95.5	6.8 *
Arkansas	88.2	92.5	4.3 *
California	91.7	96.8	5.1 *
Colorado	94.4	97.8	3.4 *
Connecticut	95.5	97.0	1.5
Delaware	95.0	96.8	1.8
District of Columbia	94.7	95.0	0.3
Florida	85.5	94.8	9.3 *
Georgia	88.9	92.4	3.5 *
Hawaii	94.6	96.9	2.3
Idaho	89.5	95.6	6.1 *
Illinois	95.0	93.0	-2.0
Indiana	90.3	93.2	2.9
Iowa	95.4	97.1	1.7
Kansas	94.9	95.1	0.2
Kentucky	86.9	94.7	7.8 *
Louisiana	88.9	93.0	4.1 *
Maine	90.7	98.3	7.6 *
Maryland	96.3	96.6	0.3
Massachusetts	94.3	96.7	2.4 *
Michigan	93.8	93.2	-0.6
Minnesota	96.4	97.4	1.1
Mississippi	82.4	91.7	9.3 *
Missouri	92.1	96.8	4.7 *
Montana	92.8	93.2	0.4
Nebraska	94.0	95.8	1.8
Nevada	89.4	95.2	5.8 *
New Hampshire	95.0	97.2	2.3
New Jersey	94.1	97.3	3.2 *
New Mexico	85.3	90.3	5.0 *
New York	90.8	96.0	5.2 *
North Carolina	89.3	94.3	5.0 *
North Dakota	95.1	94.9	-0.2
Ohio	92.2	96.3	4.1 *
Oklahoma	91.5	93.5	2.0
Oregon	91.2	96.8	5.6 *
Pennsylvania	95.1	98.1	3.0 *
Rhode Island	93.3	95.5	2.2
South Carolina	81.8	93.5	11.7 *
South Dakota	92.7	94.9	2.2
Tennessee	87.6	94.0	6.4 *
Texas	89.0	94.5	5.5 *
Utah	90.3	96.7	6.4 *
Vermont	92.7	97.6	4.9 *
Virginia	93.1	95.3	2.2
Washington	92.5	95.9	3.5 *
West Virginia	88.1	94.6	6.5 *
Wisconsin	94.8	96.8	2.0
Wyoming	89.7	93.5	3.8 *
Total United States	91.4 %	95.3 %	3.9 % *

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

* Increase is statistically significant at the 95% confidence level

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telephone Subscribership in the United States* (April 2003).

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

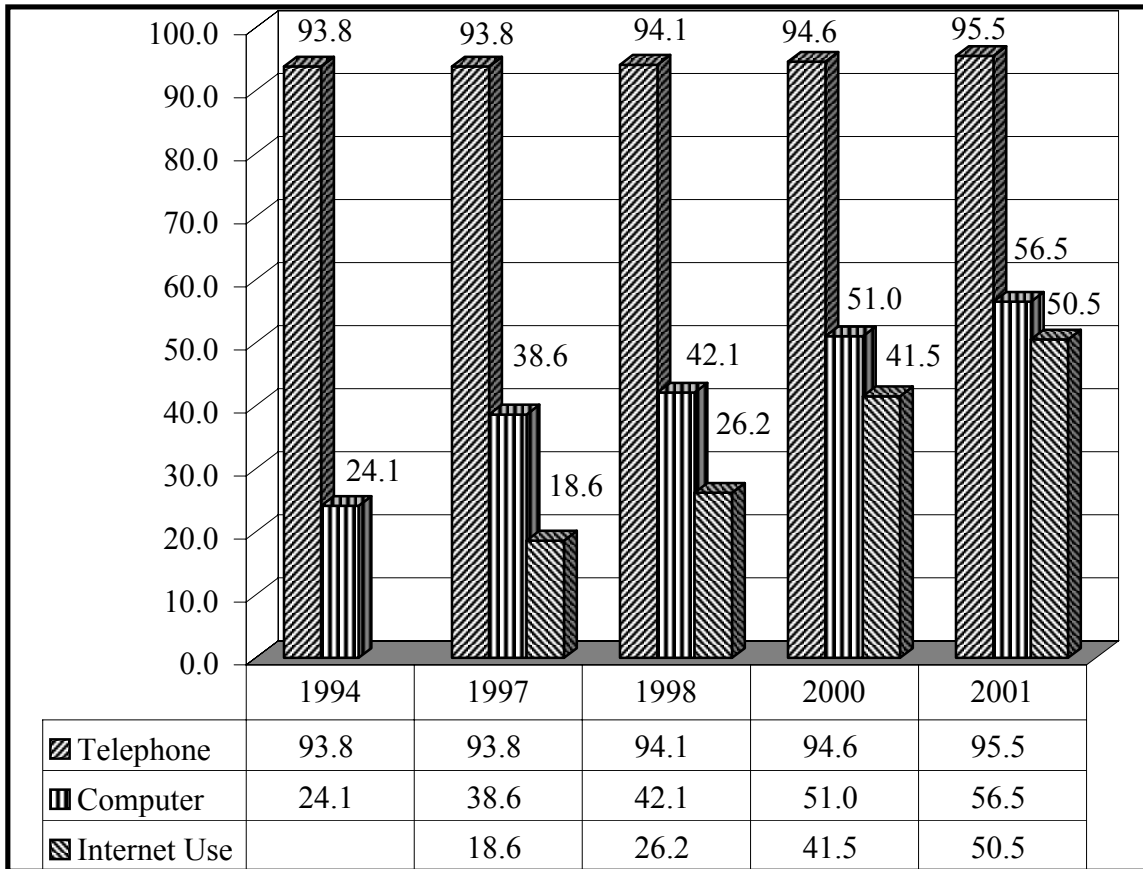
¹ Some of the reservations are in multiple states. For these reservations, occupied housing units with and without telephone service are allocated to the states based on the number of occupied housing units that are in each state. Census document GCT-H8 has data on the number of occupied housing units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

Chart 16.1
Percent of U.S. Households
With a Telephone, Computer, and Internet Use



Source: National Telecommunications and Information Administration (NTIA) and U.S. Census Bureau, *Current Population Survey*.

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 computerized equipment during the 1980s. In the telephone industry, these computers are referred to as stored program control switches. Switches with the most current technologies are fully digital. Some small rural central offices have their switching function done by computer but the calls still are processed in their analog form. The spread of these technologies throughout 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. In the late 1980s, telephone company switching offices began to be converted to the newest signaling system, Signaling System 7. As shown in Table 17.2, Signaling System 7 has been deployed almost everywhere. This was followed by an integrated systems digital network (ISDN). One of the attractions of ISDN was that ordinary local telephone lines (copper loops) could transport high-speed data between computers and handle more than one telephone conversation at a time. 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 2002 for the following categories: switches with under 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 their switching offices. As indicated in Table 17.4, fiber optic cables have rapidly replaced copper to provide these links. From 1990 to 2002, the proportion of fiber has grown from 60% to 97%.

Although fiber technology was first used for interoffice transmission facilities, the technology is now being deployed closer to customers. The number of working channels

provides an approximation of the number of transmission paths between customers and the telephone company offices serving those customers. Although the number of fiber channels nearly tripled during the first half of the 1990s, in 2001 copper wire still linked about 80% of customers to the first point of switching.

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.

For equal access to take place, the local exchange carrier had to convert its lines to equal access. 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 had been converted. 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 many 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 April 1, 2003. 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.

4. Telecommunications Patents

Another measure of developing technology is the number of U.S. patents. The U.S. Patent and Trademark Office maintains 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 2001. The information presented profiles U.S. patent activity in the general field of telecommunications. It includes all U.S. patent documents, excepting reissued patents, granted between January 1990 and December 31, 2001, which have been classified as follows:

Class 370, *Multiplex Communications*, is the generic class for multiplexing or duplexing 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 May 2002 *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.

The FCC does not systematically collect information on capital expenditures by most carriers. Table 17.6 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 2001, carriers invested 45 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
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	155,948	0	0.00	4,810	3.08	151,138	96.92
2002	148,292 ³	4	4	3,283	2.21	145,009 ³	97.79

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 The Bell operating companies are no longer required to file electromechanical switch data. See the Annual ARMIS Order, AAD 95-91, CC Docket No. 86-182, Order, 17 FCC Rcd 25421 (2002).

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	15,106 ⁶	99.98 ⁶	14,258 ^{5 6}	99.35	5,663	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	155,948	155,948	100.00	155,774	99.89	129,413	82.98
2002	148,292 ⁵	155,948 ⁶	100.00 ⁶	155,774 ⁶	99.89 ⁶	124,451 ⁵	83.92

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 data and signaling system 7 lines. See the Annual ARMIS Order, AAD 95-91, CC Docket No. 86-182, Order, 17 FCC Rcd 25421 (2002).

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	5,539	1,868	1,630	2,890
2001	8,996	6,377	15,373	3,402	5,476	1,872	1,676	2,946
2002	9,578	7,251	16,829	4,753	5,733	1,891	1,654	2,798

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	31,174,910	860,180	2.8	30,282,540	97.1	32,190	0.1
2002							

¹ 1990 contains some analog links.

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

³ The Bell operating companies are no longer required to file digital transmission links data. See the Annual ARMIS Order, AAD 95-91, CC Docket No. 86-182, Order, 17 FCC Rcd 25421 (2002).

**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	220,442	152,394	69.1	68,047	30.9	2	0.0
2002	219,024	140,005	63.9	79,018	36.1	1	0.0

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.

Source: ARMIS 43-07 report.

Table 17.5
Central Offices Converted to Equal Access 1/
(As of April 1, 2003)

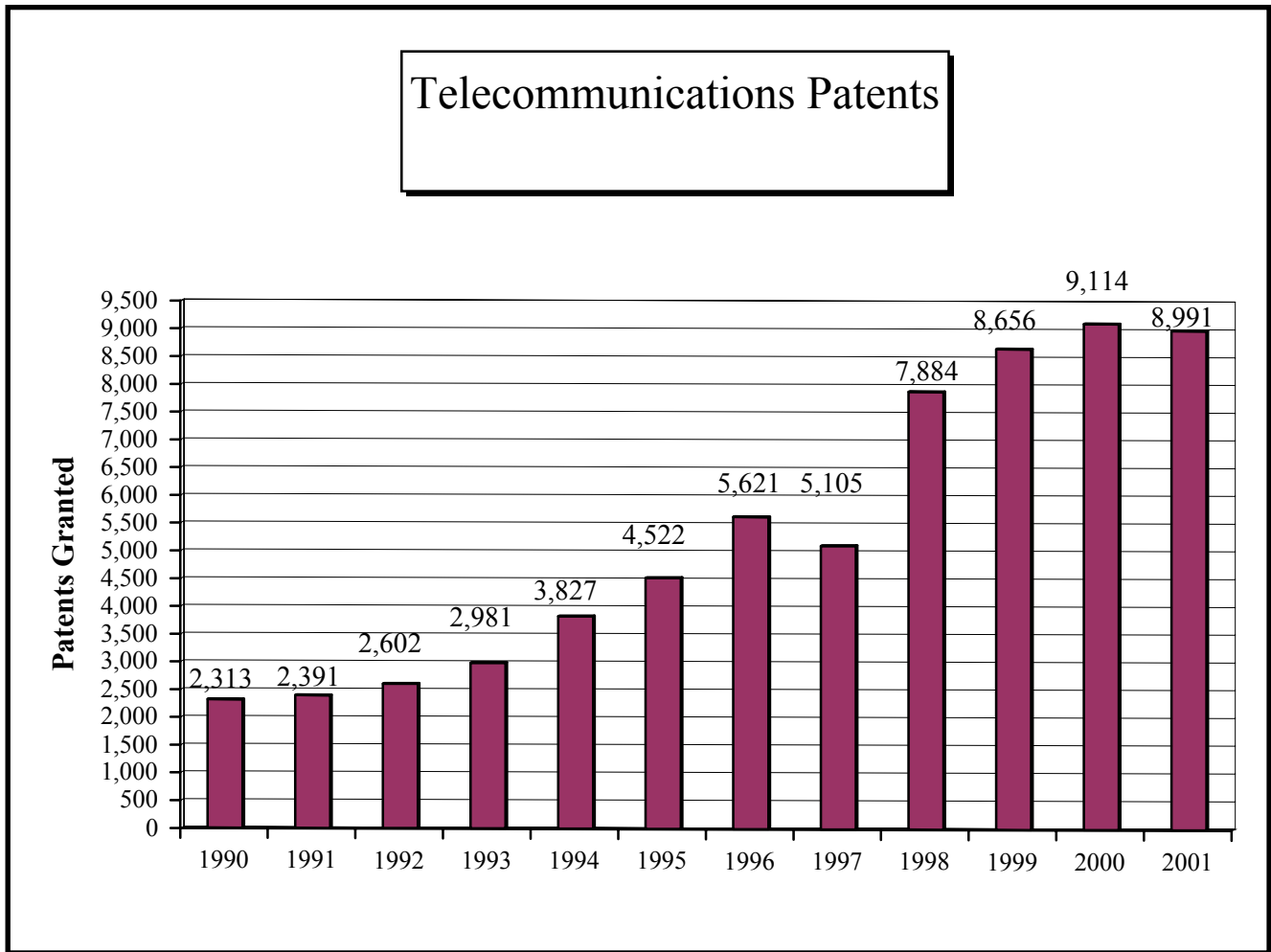
	Bell Company Central Offices			Other ILEC Central Offices			CLEC Central Offices			All Central Offices	
	Equal Access	Non-Equal Access	% Equal Access	Equal Access	Non-Equal Access	% Equal Access	Equal Access	Non-Equal Access	% Equal Access	Total Offices	% Equal Access
Alabama	148	0	100.0 %	220	0	100.0 %	21	5	80.8 %	394	98.7 %
Alaska	0	0	NA	59	196	23.1	0	0	NA	255	23.1
Arizona	145	0	100.0	99	8	92.5	28	3	90.3	283	96.1
Arkansas	136	0	100.0	259	2	99.2	18	2	90.0	417	99.0
California	899	9	99.0	94	5	94.9	129	43	75.0	1,179	95.2
Colorado	167	1	99.4	101	8	92.7	32	2	94.1	311	96.5
Connecticut	127	0	100.0	2	0	100.0	13	3	81.3	145	97.9
Delaware	33	0	100.0	0	0	NA	0	1	0.0	34	97.1
District of Columbia	19	0	100.0	0	0	NA	20	3	87.0	42	92.9
Florida	287	0	100.0	176	2	98.9	192	21	90.1	678	96.6
Georgia	181	0	100.0	241	5	98.0	70	14	83.3	511	96.3
Guam	0	0	NA	18	0	100.0	0	0	NA	18	100.0
Hawaii	86	0	100.0	6	0	100.0	1	0	100.0	93	100.0
Idaho	97	0	100.0	73	14	83.9	7	1	87.5	192	92.2
Illinois	687	15	97.9	323	8	97.6	29	20	59.2	1,082	96.0
Indiana	387	2	99.5	187	0	100.0	31	8	79.5	615	98.4
Iowa	135	0	100.0	674	2	99.7	34	3	91.9	848	99.4
Kansas	171	2	98.8	364	5	98.6	19	5	79.2	566	97.9
Kentucky	178	0	100.0	199	0	100.0	17	7	70.8	401	98.3
Louisiana	228	0	100.0	95	0	100.0	23	4	85.2	350	98.9
Maine	143	1	99.3	106	8	93.0	2	1	66.7	261	96.2
Maryland	212	0	100.0	1	0	100.0	29	3	90.6	245	98.8
Massachusetts	274	2	99.3	3	0	100.0	54	11	83.1	344	96.2
Michigan	540	10	98.2	157	5	96.9	30	9	76.9	751	96.8
Minnesota	158	0	100.0	548	4	99.3	103	3	97.2	816	99.1
Mississippi	206	0	100.0	61	1	98.4	12	4	75.0	284	98.2
Missouri	215	3	98.6	436	45	90.6	47	9	83.9	755	92.5
Montana	76	0	100.0	199	1	99.5	17	2	89.5	295	99.0
Nebraska	69	0	100.0	395	0	100.0	10	1	90.9	475	99.8
Nevada	55	0	100.0	49	15	76.6	10	2	83.3	131	87.0
New Hampshire	125	1	99.2	27	1	96.4	5	3	62.5	162	96.9
New Jersey	206	0	100.0	28	0	100.0	22	10	68.8	266	96.2
New Mexico	65	0	100.0	88	34	72.1	8	0	100.0	195	82.6
New York	526	1	99.8	305	8	97.4	75	20	78.9	935	96.9
North Carolina	182	0	100.0	322	1	99.7	64	14	82.1	583	97.4
North Dakota	27	0	100.0	243	19	92.7	13	2	86.7	304	93.1
Ohio	474	34	93.3	341	4	98.8	65	8	89.0	926	95.0
Oklahoma	208	2	99.0	296	19	94.0	17	5	77.3	547	95.2
Oregon	136	0	100.0	148	3	98.0	27	2	93.1	316	98.4
Pennsylvania	505	0	100.0	302	31	90.7	79	12	86.8	929	95.4
Puerto Rico	0	0	NA	86	0	100.0	0	0	NA	86	100.0
Rhode Island	30	0	100.0	0	0	NA	3	1	75.0	34	97.1
South Carolina	156	0	100.0	123	0	100.0	29	5	85.3	313	98.4
South Dakota	42	0	100.0	204	8	96.2	7	0	100.0	261	96.9
Tennessee	195	0	100.0	166	0	100.0	35	4	89.7	400	99.0
Texas	793	12	98.5	690	12	98.3	168	25	87.0	1,700	97.1
Utah	64	0	100.0	78	18	81.3	14	2	87.5	176	88.6
Vermont	90	2	97.8	42	0	100.0	1	1	50.0	136	97.8
Virgin Islands	0	0	NA	5	0	100.0	0	0	NA	5	100.0
Virginia	326	0	100.0	134	7	95.0	38	10	79.2	515	96.7
Washington	220	0	100.0	147	2	98.7	40	0	100.0	409	99.5
West Virginia	145	0	100.0	83	6	93.3	0	2	0.0	236	96.6
Wisconsin	225	5	97.8	410	0	100.0	43	7	86.0	690	98.3
Wyoming	26	0	100.0	34	23	59.6	2	2	50.0	87	71.3
Total United States	10,825	102	99.1 %	9,447	530	94.7 %	1,753	325	84.4 %	22,982	95.8 %

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.

Chart 17.1



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

Source: U.S. Patent and Trademark Office, *Technology Profile Report - Telecommunications, Classes 370, 375, 379 and 455.*

Table 17.6
Capital Expenditures for Structures and Equipment
(Expenditure Amounts Shown in Millions)

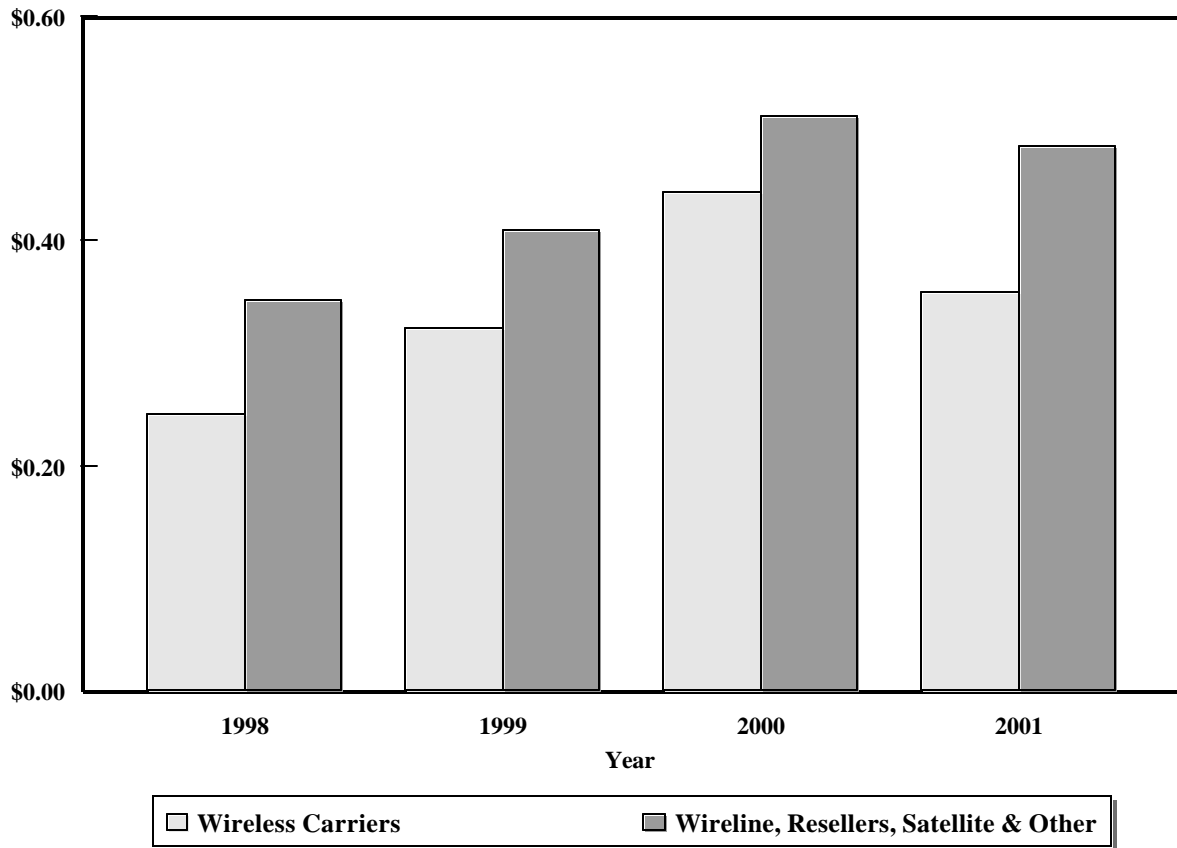
NAICS Code 2/		1995	1996	1997	1998	1999	2000	2001
Wireline Telecommunications Carriers	51331							
Expenditures for Structures								
New					\$10,652	3/	\$18,021	\$12,811
Used					<u>12</u>	<u>3/</u>	<u>205</u>	<u>18</u>
Total					10,664	17,309	18,226	12,828
Expenditures for Equipment								
New					39,828	3/	55,902	60,877
Used					<u>78</u>	<u>3/</u>	<u>77</u>	<u>47</u>
Total					39,905	42,442	55,980	60,923
Total Expenditures for Structures and Equipment					\$50,570	\$59,752	\$74,206	\$73,752
Wireless Telecommunications Carriers Except Satellite	51332							
Expenditures for Structures								
New					\$2,387	\$5,026	\$7,674	\$11,313
Used					*	<u>3</u>	<u>58</u>	<u>8</u>
Total					2,387	5,030	7,732	11,321
Expenditures for Equipment								
New					5,841	9,350	17,589	12,695
Used					<u>6</u>	<u>43</u>	<u>161</u>	<u>13</u>
Total					5,841	9,393	17,750	12,708
Total Expenditures for Structures and Equipment					\$8,228	\$14,422	\$25,482	\$24,028
Telecommunications Resellers, Satellite, and Other Telecommunications	51333, 51334 and 51339							
Expenditures for Structures								
New					\$2,089	\$1,410	\$1,951	\$872
Used					*	<u>4</u>	<u>3</u>	<u>5</u>
Total					2,089	1,414	1,954	877
Expenditures for Equipment								
New					4,188	8,795	11,495	6,498
Used					<u>4</u>	<u>49</u>	<u>164</u>	<u>78</u>
Total					4,192	8,845	11,659	6,576
Total Expenditures for Structures and Equipment					\$6,281	\$10,259	\$13,613	\$7,453
Telephone and Other Communications Services								
Expenditures for Structures								
New		\$6,545	\$9,193	\$9,672	\$15,128	3/	\$27,646	\$24,996
Used		<u>263</u>	<u>185</u>	<u>218</u>	<u>12</u>	<u>3/</u>	<u>266</u>	<u>31</u>
Total		6,809	9,378	9,890	15,140	23,753	27,912	25,026
Expenditures for Equipment								
New		30,802	37,985	46,667	49,857	3/	84,986	80,070
Used		<u>138</u>	<u>299</u>	<u>406</u>	<u>88</u>	<u>3/</u>	<u>402</u>	<u>138</u>
Total		30,939	38,283	47,074	49,938	60,680	85,389	80,207
Total Expenditures for Structures and Equipment		\$37,799	\$47,661	\$56,963	\$65,079	\$84,433	\$113,301	\$105,233

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

- 1/ Capital expenditures include capitalized computer software, 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 Carriers
Per Dollar of End-User Telecommunications Revenues *



* The chart incorporates the following end-user revenue data (\$ millions)

	1998	1999	2000	2001
Wireless	\$33,573	\$44,804	\$57,429	\$67,896
<u>Wireline & Resellers</u>	<u>163,879</u>	<u>170,959</u>	<u>171,720</u>	<u>167,617</u>
Total	\$197,452	\$215,763	\$229,149	\$235,513

Source: U.S. Census Bureau, *Annual Capital Expenditures*; Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* (March 2003).

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, and three have been added, so far, in 2003. 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." The new system enables customers to change service providers while still retaining the same 800 number. There has been tremendous growth in the toll-free market. The growth of toll-free telephone numbers is shown in Table 18.3. 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 next toll-free code scheduled for service is 855, which was scheduled for November 18, 2000, but has been delayed. Database Service Management, Inc., a subsidiary of Telcordia Technologies, Inc., maintains the database on 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 pattern 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 18.4 shows the dialing patterns for all four types of calls. The last column of Table 18.4 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 - 2003)**

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

Table 18.2
Area Code Assignments
(1984-2003)

Location	Date	Previous Code	Added Code
California	1/84	213	818
New York	9/84	212	718
Colorado	3/88	303	719
Florida	4/88	305	407
Massachusetts	7/88	617	508
Illinois	11/89	312	708
New Jersey	11/90	201	908
Texas	11/90	214	903
California	9/91	415	510
Maryland	10/91	301	410
California	11/91	213	310
New York	1/92	212	917
New York	1/92	718	917
Georgia	5/92	404	706
Texas	11/92	512	210
California	11/92	714	909
Ontario	10/93	416	905
North Carolina	11/93	919	910
Michigan	12/93	313	810
Pennsylvania	1/94	215	610
Alabama	1/95	205	334
Washington	1/95	206	360
Arizona	3/95	602	520
Colorado	4/95	303	970
Florida (Tampa)	5/95	813	941
Virginia	7/95	703	540
Georgia (Atlanta)	8/95	404	770
Connecticut	8/95	203	860
Florida (Miami)	9/95	305	954
Tennessee	9/95	615	423
Bermuda	10/95	809	441
Oregon	11/95	503	541
South Carolina	12/95	803	864
Florida (North)	12/95	904	352
Missouri	1/96	314	573
Illinois (Chicago)	1/96	708	847
Puerto Rico	3/96	809	787
Ohio	3/96	216	330
Minnesota	3/96	612	320
Antigua	4/96	809	268
Florida (Southeast)	5/96	407	561
Barbados	7/96	809	246
St. Lucia	7/96	809	758
Virginia	7/96	804	757

Table 18.2
Area Code Assignments -- Continued
(1984-2003)

Location	Date	Previous Code	Added Code
Montserrat	7/96	809	664
Illinois (Chicago)	8/96	708	630
Cayman Islands	9/96	809	345
Texas (Dallas)	9/96	214	972
Ohio	9/96	513	937
Bahamas	10/96	809	242
St. Kitts & Nevis	10/96	809	869
Illinois	10/96	312	773
British Columbia	10/96	604	250
Texas (Houston)	11/96	713	281
California (Southern)	1/97	310	562
Indiana	2/97	317	765
California	3/97	619	760
Anguilla	3/97	809	264
Arkansas	4/97	501	870
Washington State	4/97	206	253
Washington State	4/97	206	425
Jamaica	5/97	809	876
Michigan	5/97	810	248
Texas	5/97	817	254
Texas	5/97	817	940
Turks & Caicos	6/97	809	649
Trinidad/Tobago	6/97	809	868
Maryland	6/97	301	240
Maryland	6/97	410	443
New Jersey	6/97	201	973
New Jersey	6/97	908	732
U.S. Virgin Islands	6/97	809	340
California	6/97	818	626
Florida	6/97	904	850
Guam	7/97	NA	671
Commonwealth of the Northern Mariana Islands	7/97	NA	670
Texas	7/97	210	830
Texas	7/97	210	956
Kansas	7/97	913	785
Wisconsin	7/97	414	920
California	8/97	415	650
Ohio	8/97	216	440
Massachusetts	9/97	617	781
Massachusetts	9/97	508	978
Tennessee	9/97	615	931
Mississippi	9/97	601	228
Utah	9/97	801	435
Dominica	10/97	809	767

Table 18.2
Area Code Assignments -- Continued
(1984-2003)

Location	Date	Previous Code	Added Code
British Virgin Islands	10/97	809	284
Missouri	10/97	816	660
Yukon & Northwest Territories	10/97	403	867
Yukon & Northwest Territories	10/97	819	867
Grenada	10/97	809	473
California	11/97	916	530
Oklahoma	11/97	405	580
Ohio	12/97	614	740
Michigan	12/97	313	734
North Carolina	12/97	910	336
Georgia (Atlanta)	1/98	770	678
Pennsylvania	2/98	412	724
Florida	3/98	305	786
California	3/98	510	925
South Carolina	3/98	803	843
North Carolina	3/98	704	828
North Carolina	3/98	919	252
Alabama	3/98	205	256
California	4/98	714	949
Colorado	6/98	303	720
St. Vincent & the Grenadines	6/98	809	784
California (Los Angeles)	6/98	213	323
Quebec	6/98	514	450
Florida	7/98	813	727
California	7/98	408	831
Minnesota	7/98	612	651
Louisiana	8/98	504	225
California	11/98	209	559
Pennsylvania	12/98	717	570
Nevada	12/98	702	775
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

Table 18.2
Area Code Assignments -- Continued
(1984-2003)

Location	Date	Previous Code	Added Code
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
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

Table 18.2
Area Code Assignments -- Continued
(1984-2003)

Location	Date	Previous Code	Added Code
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

NA - Not applicable.

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

Table 18.3
Telephone Numbers Assigned for Toll-Free Service *
(Summary December 1993 - June 2003)

Year	Month	Working Toll-Free Numbers	Miscellaneous Toll-Free Numbers¹	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	1,347,805	23,547,447	8,837,185
2003	June	21,678,380	1,587,346	22,961,370	8,688,630

Table 18.3
Telephone Numbers Assigned for Toll-Free Service *
800 Toll-Free Service

Year	Month	Working 800 Numbers	Miscellaneous 800 Numbers ¹	Total 800 Numbers Assigned	Spare 800 Numbers Still Available	
1993	April	2,448,985	642,725	3,091,710	4,618,290	
	May	2,511,933	708,192	3,220,125	4,489,875	
	June	2,589,123	722,006	3,311,129	4,398,871	
	July	2,675,483	705,416	3,380,899	4,329,101	
	August	2,738,259	701,009	3,439,268	4,270,732	
	September	2,818,262	639,547	3,457,809	4,252,191	
	October	2,891,994	660,544	3,552,538	4,157,462	
	November	3,083,250	728,514	3,811,764	3,898,236	
	December	3,155,955	731,438	3,887,393	3,822,607	
	1994	January	3,257,540	580,216	3,837,756	3,872,244
		February	3,381,646	731,005	4,112,651	3,597,349
		March	3,516,620	743,813	4,260,433	3,449,567
April		3,659,129	699,212	4,358,341	3,351,659	
May		3,793,865	738,767	4,532,632	3,177,368	
June		3,933,037	792,698	4,725,735	2,984,265	
July		4,099,174	699,803	4,798,977	2,911,023	
August		4,312,486	807,881	5,120,367	2,589,633	
September		4,506,014	841,381	5,347,395	2,362,605	
October		4,611,014	871,684	5,482,698	2,227,302	
November		4,817,854	875,416	5,693,270	2,016,730	
December		4,948,605	763,235	5,711,840	1,998,160	
1995	January	5,096,646	807,294	5,903,940	1,806,060	
	February	5,278,800	811,221	6,090,021	1,619,979	
	March	5,528,723	793,771	6,322,494	1,387,506	
	April	5,741,780	797,902	6,539,682	1,170,318	
	May	5,980,848	843,093	6,823,941	886,059	
	June	6,340,534	481,633	6,822,167	887,833	
	July	6,402,785	443,717	6,846,502	863,498	
	August	6,428,120	442,270	6,870,390	839,610	
	September	6,503,018	437,215	6,940,233	769,767	
	October	6,583,344	396,605	6,979,949	730,051	
	November	6,647,880	310,043	6,957,923	752,077	
	December	6,700,576	286,487	6,987,063	722,937	
1996	January	6,766,607	297,001	7,063,608	646,392	
	February	6,861,093	335,557	7,196,650	513,350	
	March	6,907,098	293,244	7,200,342	509,658	
	April	6,934,085	280,927	7,215,012	494,988	
	May	6,943,620	333,140	7,276,760	433,240	
	June	6,986,821	324,899	7,311,720	398,280	
	July	7,022,309	339,900	7,362,209	347,791	
	August	7,074,772	311,273	7,386,045	323,955	
	September	7,119,167	310,562	7,429,729	280,271	
	October	7,185,135	325,088	7,510,223	199,777	
	November	7,242,377	337,502	7,579,879	130,121	
	December	7,272,819	343,905	7,616,724	93,276	

Table 18.3
Telephone Numbers Assigned for Toll-Free Service * -- Continued
800 Toll-Free Service

Year	Month	Working Toll-Free Numbers	Miscellaneous Toll-Free Numbers¹	Total Toll-Free Numbers Assigned	Spare Toll-Free Numbers Still Available
1997	January	7,333,632	323,804	7,657,436	52,564
	February	7,388,696	318,571	7,707,267	2,733
	March	7,402,769	305,362	7,708,131	1,869
	April	7,411,118	296,925	7,708,043	1,957
	May	7,411,291	294,320	7,705,611	4,389
	June	7,415,591	293,802	7,709,393	607
	July	7,421,288	283,794	7,705,082	4,918
	August	7,430,733	276,024	7,706,757	3,243
	September	7,427,717	280,668	7,708,385	1,615
	October	7,433,483	276,490	7,709,973	27
	November	7,423,662	276,576	7,700,238	9,762
	December	7,429,160	267,429	7,696,589	13,411
1998	January	7,431,789	264,143	7,695,932	14,068
	February	7,445,338	257,493	7,702,831	7,169
	March	7,455,240	249,964	7,705,204	4,796
	April	7,464,692	232,462	7,697,154	12,846
	May	7,476,270	228,409	7,704,679	5,321
	June	7,480,468	227,041	7,707,509	2,491
	July	7,485,866	221,078	7,706,944	3,056
	August	7,483,417	224,242	7,707,659	2,341
	September	7,489,271	219,080	7,708,351	1,649
	October	7,479,005	229,889	7,708,894	1,106
	November	7,478,913	228,892	7,707,805	2,195
	December	7,487,529	215,267	7,702,796	7,204
1999	January	7,498,435	194,520	7,692,955	17,045
	February	7,504,256	192,068	7,696,324	13,676
	March	7,498,527	204,515	7,703,042	6,958
	April	7,506,452	202,241	7,708,693	1,307
	May	7,504,523	204,751	7,709,274	726
	June	7,502,118	207,061	7,709,179	821
	July	7,512,928	196,345	7,709,273	727
	August	7,514,686	194,434	7,709,120	880
	September	7,523,302	185,363	7,708,665	1,335
	October	7,493,898	215,756	7,709,654	346
	November	7,499,343	210,266	7,709,609	391
	December	7,505,737	202,416	7,708,153	1,847

Table 18.3
Telephone Numbers Assigned for Toll-Free Service * -- Continued
800 Toll-Free Service

Year	Month	Working 800 Numbers	Miscellaneous 800 Numbers¹	Total 800 Numbers Assigned	Spare 800 Numbers Still Available
2000	January	7,486,650	223,367	7,710,017	N.A.
	February	7,490,980	198,506	7,689,486	20,514
	March	7,516,391	193,246	7,709,637	363
	April	7,531,395	177,779	7,709,174	826
	May	7,547,157	158,776	7,705,933	4,067
	June	7,570,082	139,444	7,709,526	474
	July	7,576,696	132,065	7,708,761	1,239
	August	7,558,277	151,720	7,709,997	3
	September	7,752,091	-42,295	7,709,796	204
	October	7,578,617	131,366	7,709,983	17
	November	7,563,824	135,636	7,699,460	10,540
	December	7,566,810	132,887	7,699,697	10,303
2001	January	7,483,975	215,316	7,699,291	10,709
	February	7,450,121	248,257	7,698,378	11,622
	March	7,434,621	264,967	7,699,588	10,412
	April	7,407,530	292,123	7,699,653	10,347
	May	7,410,426	261,585	7,672,011	37,989
	June	7,357,279	242,106	7,599,385	110,615
	July	7,336,672	222,085	7,558,757	151,243
	August	7,343,034	178,105	7,521,139	188,861
	September	7,383,111	164,881	7,547,992	162,008
	October	7,348,545	174,507	7,523,052	186,948
	November	7,361,135	186,143	7,547,278	162,722
	December	7,370,055	184,689	7,554,744	155,256
2002	January	7,372,220	208,787	7,581,007	128,993
	February	7,319,840	250,589	7,570,429	139,571
	March	7,181,636	400,955	7,582,591	127,409
	April	7,217,397	370,919	7,588,316	121,684
	May	7,151,394	558,606	7,495,795	214,205
	June	7,234,847	475,153	7,516,852	193,148
	July	7,191,729	518,271	7,382,721	327,279
	August	7,185,109	524,891	7,355,611	354,389
	September	7,200,821	509,179	7,378,544	331,456
	October	7,206,339	503,661	7,404,660	305,340
	November	7,170,791	539,209	7,372,894	337,106
	December	7,210,159	499,841	7,413,427	296,573
2003	January	7,190,460	519,540	7,392,644	317,356
	February	7,192,638	517,362	7,373,013	336,987
	March	7,182,120	527,880	7,406,656	303,344
	April	7,179,957	530,043	7,385,336	324,664
	May	7,197,908	512,092	7,387,935	322,065
	June	7,171,068	538,932	7,405,644	304,356

Table 18.3
Telephone Numbers Assigned for Toll-Free Service * -- Continued
888 Toll-Free Service

Year	Month	Working 888 Numbers	Miscellaneous 888 Numbers¹	Total 888 Numbers Assigned	Spare 888 Numbers Still Available
1996	February	67,399	560,598	627,997	7,352,003
	March	267,874	568,574	836,448	7,143,552
	April	442,005	565,402	1,007,407	6,972,593
	May	707,374	542,428	1,249,802	6,730,198
	June	922,849	544,079	1,466,928	6,513,072
	July	1,157,770	549,845	1,707,615	6,272,385
	August	1,437,660	576,399	2,014,059	5,965,941
	September	1,641,519	590,345	2,231,864	5,748,136
	October	1,886,663	629,365	2,516,028	5,463,972
	November	2,074,600	622,375	2,696,975	5,283,025
	December	2,255,163	601,766	2,856,929	5,123,071
	1997	January	2,457,250	591,533	3,048,783
February		2,654,984	629,997	3,284,981	4,695,019
March		2,857,608	661,164	3,518,772	4,461,228
April		3,097,015	646,709	3,743,724	4,236,276
May		3,399,856	657,615	4,057,471	3,922,529
June		3,660,984	681,981	4,342,965	3,637,035
July		3,990,769	696,331	4,687,100	3,292,900
August		4,345,910	742,755	5,088,665	2,891,335
September		4,776,688	774,431	5,551,119	2,428,881
October		5,139,455	726,515	5,865,970	2,114,030
November		5,353,989	699,223	6,053,212	1,926,788
December		5,551,554	729,020	6,280,574	1,699,426
1998	January	5,760,023	719,289	6,479,312	1,500,688
	February	5,968,391	723,679	6,692,070	1,287,930
	March	6,167,479	728,415	6,895,894	1,084,106
	April	6,373,603	690,041	7,063,644	916,356
	May	6,493,156	672,776	7,165,932	814,068
	June	6,591,764	665,496	7,257,260	722,740
	July	6,705,902	661,085	7,366,987	613,013
	August	6,790,315	669,486	7,459,801	520,199
	September	6,898,718	612,254	7,510,972	469,028
	October	7,012,860	573,695	7,586,555	393,445
	November	7,054,472	572,759	7,627,231	352,769
	December	7,146,159	515,009	7,661,168	318,832
1999	January	7,196,336	510,057	7,706,393	273,607
	February	7,249,001	493,132	7,742,133	237,867
	March	7,278,531	495,904	7,774,435	205,565
	April	7,324,847	234,588	7,559,435	420,565
	May	7,385,748	216,196	7,601,944	378,056
	June	7,428,424	231,697	7,660,121	319,879
	July	7,487,759	231,884	7,719,643	260,357
	August	7,546,299	233,286	7,779,585	200,415
	September	7,601,867	211,318	7,813,185	166,815
	October	7,542,131	341,720	7,883,851	96,149
	November	7,592,293	342,918	7,935,211	44,789
	December	7,643,158	324,405	7,967,563	12,437

Table 18.3
Telephone Numbers Assigned for Toll-Free Service * -- Continued
888 Toll-Free Service

Year	Month	Working 888 Numbers	Miscellaneous 888 Numbers¹	Total 888 Numbers Assigned	Spare 888 Numbers Still Available
2000	January	7,615,927	363,960	7,979,887	113
	February	7,627,138	247,788	7,874,926	105,074
	March	7,685,423	230,035	7,915,458	64,542
	April	7,717,002	229,345	7,946,347	33,653
	May	7,758,684	157,984	7,916,668	63,332
	June	7,789,986	140,658	7,930,644	49,356
	July	7,820,147	141,713	7,961,860	18,140
	August	7,806,064	167,935	7,973,999	6,001
	September	7,806,252	173,588	7,979,840	160
	October	7,804,668	175,332	7,980,000	0
	November	7,795,241	172,827	7,968,068	11,932
	December	7,789,188	177,328	7,966,516	13,484
2001	January	7,647,783	324,097	7,971,880	8,120
	February	7,628,543	345,775	7,974,318	5,682
	March	7,616,189	355,451	7,971,640	8,360
	April	7,601,821	344,060	7,945,881	34,119
	May	7,573,372	264,492	7,837,864	142,136
	June	7,548,761	270,198	7,818,959	161,041
	July	7,540,276	254,940	7,795,216	184,784
	August	7,529,912	220,202	7,750,114	229,886
	September	7,508,100	203,518	7,711,618	268,382
	October	7,472,910	201,782	7,674,692	305,308
	November	7,464,369	197,092	7,661,461	318,539
	December	7,452,071	190,727	7,642,798	337,202
2002	January	7,415,181	197,673	7,612,854	367,146
	February	7,387,865	190,345	7,578,210	401,790
	March	6,964,624	577,910	7,542,534	437,466
	April	6,637,447	840,389	7,477,836	502,164
	May	6,636,437	373,954	7,010,391	969,609
	June	6,629,862	354,771	6,984,633	995,367
	July	6,622,001	176,230	6,798,231	1,181,769
	August	6,617,231	148,855	6,766,086	1,213,914
	September	6,682,043	92,050	6,774,093	1,205,907
	October	6,610,926	167,057	6,777,983	1,202,017
	November	6,608,010	174,171	6,782,181	1,197,819
	December	6,610,191	154,015	6,764,206	1,215,794
2003	January	6,599,234	159,863	6,759,097	1,220,903
	February	6,547,704	205,436	6,753,140	1,226,860
	March	6,408,723	324,558	6,733,281	1,246,719
	April	6,371,949	346,702	6,718,651	1,261,349
	May	6,301,219	354,010	6,655,229	1,324,771
	June	6,228,846	251,701	6,480,547	1,499,453

Table 18.3
Telephone Numbers Assigned for Toll-Free Service * -- Continued
877 Toll-Free Service

Year	Month	Working 877 Numbers	Miscellaneous 877 Numbers¹	Total 877 Numbers Assigned	Spare 877 Numbers Still Available	
1998	April	168,300	276,169	444,469	7,535,531	
	May	354,303	256,712	611,015	7,368,985	
	June	552,037	209,967	762,004	7,217,996	
	July	759,971	179,830	939,801	7,040,199	
	August	918,956	201,087	1,120,043	6,859,957	
	September	1,072,046	206,714	1,278,760	6,701,240	
	October	1,259,620	277,038	1,536,658	6,443,342	
	November	1,386,726	292,264	1,678,990	6,301,010	
	December	1,567,195	235,190	1,802,385	6,177,615	
	1999	January	1,712,675	233,863	1,946,538	6,033,462
		February	1,920,715	299,430	2,220,145	5,759,855
		March	2,141,228	329,044	2,470,272	5,509,728
April		2,410,517	403,711	2,814,228	5,165,772	
May		2,678,075	407,450	3,085,525	4,894,475	
June		2,899,466	410,026	3,309,492	4,670,508	
July		3,140,981	491,644	3,632,625	4,347,375	
August		3,472,534	456,372	3,928,906	4,051,094	
September		3,755,361	436,433	4,191,794	3,788,206	
October		4,008,681	486,968	4,495,649	3,484,351	
November		4,304,159	505,179	4,809,338	3,170,662	
December		4,528,106	575,143	5,103,249	2,876,751	
2000	January	4,882,111	573,482	5,455,593	2,524,407	
	February	5,118,387	659,479	5,777,866	2,202,134	
	March	5,436,297	598,702	6,034,999	1,945,001	
	April	5,764,078	520,951	6,285,029	1,694,971	
	May	6,098,025	469,486	6,567,511	1,412,489	
	June	6,317,507	402,858	6,720,365	1,259,635	
	July	6,608,186	391,545	6,999,731	980,269	
	August	6,636,282	385,065	7,021,347	958,653	
	September	6,539,180	496,015	7,035,195	944,805	
	October	6,475,202	622,384	7,097,586	882,414	
	November	6,436,613	657,271	7,093,884	886,116	
	December	6,391,285	719,333	7,110,618	869,382	

Table 18.3
Telephone Numbers Assigned for Toll-Free Service * -- Continued
877 Toll-Free Service

Year	Month	Working 877 Numbers	Miscellaneous 877 Numbers ¹	Total 877 Numbers Assigned	Spare 877 Numbers Still Available
2001	January	6,425,413	612,539	7,037,952	942,048
	February	6,369,360	559,994	6,929,354	1,050,646
	March	6,289,079	469,980	6,759,059	1,220,941
	April	6,249,330	537,570	6,786,900	1,193,100
	May	6,191,049	611,661	6,802,710	1,177,290
	June	6,094,898	715,097	6,809,995	1,170,005
	July	6,147,253	602,984	6,750,237	1,229,763
	August	6,169,624	518,953	6,688,577	1,291,423
	September	6,163,297	489,084	6,652,381	1,327,619
	October	6,170,689	370,974	6,541,663	1,438,337
	November	6,162,433	401,766	6,564,199	1,415,801
	December	6,214,863	345,468	6,560,331	1,419,669
2002	January	6,188,017	327,365	6,515,382	1,464,618
	February	6,191,784	323,701	6,515,485	1,464,515
	March	6,174,529	340,472	6,515,001	1,464,999
	April	6,062,715	324,445	6,387,160	1,592,840
	May	6,054,032	272,339	6,326,371	1,653,629
	June	6,016,107	267,320	6,283,427	1,696,573
	July	5,954,844	233,709	6,188,553	1,791,447
	August	5,826,439	224,618	6,051,057	1,928,943
	September	5,656,158	275,722	5,931,880	2,048,120
	October	5,644,615	250,456	5,895,071	2,084,929
	November	5,560,380	335,957	5,896,337	2,083,663
	December	5,448,276	421,984	5,870,260	2,109,740
2003	January	5,328,328	478,131	5,806,459	2,173,541
	February	5,162,698	643,248	5,805,946	2,174,054
	March	5,132,413	579,240	5,711,653	2,268,347
	April	5,044,360	484,190	5,528,550	2,451,450
	May	4,979,346	391,960	5,371,306	2,608,694
	June	4,791,792	376,236	5,168,028	2,811,972

Table 18.3
Telephone Numbers Assigned for Toll-Free Service * -- Continued
866 Toll-Free Service

Year	Month	Working 866 Numbers	Miscellaneous 866 Numbers¹	Total 866 Numbers Assigned	Spare 866 Numbers Still Available
2000	July	8,714	135,238	143,952	7,836,048
	August	384,164	213,442	597,606	7,382,394
	September	672,250	155,646	827,896	7,152,104
	October	931,620	161,091	1,092,711	6,887,289
	November	1,200,025	139,026	1,339,051	6,640,949
	December	1,274,732	148,548	1,423,280	6,556,720
2001	January	1,485,551	190,096	1,675,647	6,304,353
	February	1,597,785	224,368	1,822,153	6,157,847
	March	1,652,602	361,888	2,014,490	5,965,510
	April	1,726,291	356,526	2,082,817	5,897,183
	May	1,868,490	345,639	2,214,129	5,765,871
	June	1,944,520	362,880	2,307,400	5,672,600
	July	2,011,779	342,485	2,354,264	5,625,736
	August	2,171,463	320,800	2,492,263	5,487,737
	September	2,256,792	308,801	2,565,593	5,414,407
	October	2,333,977	289,824	2,623,801	5,356,199
	November	2,406,337	272,400	2,678,737	5,301,263
	December	2,416,040	307,089	2,723,129	5,256,871
2002	January	2,490,156	327,104	2,817,260	5,162,740
	February	2,563,573	323,783	2,887,356	5,092,644
	March	2,640,414	321,530	2,961,944	5,018,056
	April	2,667,789	306,192	2,973,981	5,006,019
	May	2,791,457	253,240	3,044,697	4,935,303
	June	2,864,605	219,232	3,083,837	4,896,163
	July	2,888,507	225,716	3,114,223	4,865,777
	August	2,920,735	233,591	3,154,326	4,825,674
	September	2,977,379	244,297	3,221,676	4,758,324
	October	3,063,304	291,645	3,354,949	4,625,051
	November	3,185,716	283,230	3,468,946	4,511,054
	December	3,227,589	271,965	3,499,554	4,480,446
2003	January	3,262,204	267,471	3,529,675	4,450,325
	February	3,383,925	291,308	3,675,233	4,304,767
	March	3,461,686	299,700	3,761,386	4,218,614
	April	3,508,187	293,084	3,801,271	4,178,729
	May	3,531,802	281,642	3,813,444	4,166,556
	June	3,486,674	420,477	3,907,151	4,072,849

NA - Not applicable.

* Toll-free (800) service was initially offered by AT&T in 1967. On May 3, 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 November 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.

Table 18.4
Dialing Patterns of the United States
Number of Digits Necessary to Dial Local and Toll Calls
(As of April 2003)

State	Local Calls		Toll Calls		Toll Calls Require Dialing 1 +
	Within Same Area Code	Between Area Codes	Within Same Area Code	Between Area Codes	
Alabama	7	10	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 ¹	10 ²	1 + 10	1 + 10	Yes
Connecticut	7	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 ³	10	1 + 10	1 + 10	Yes
Georgia	7 ⁴	10	1 + 10	1 + 10	Yes
Hawaii	7	NA	1 + 10	1 + 10	Yes
Idaho	7	7	1 + 10	1 + 10	Yes
Illinois	7 ⁵	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	7 ⁶	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 ⁷	10	1 + 10	1 + 10	Yes
Michigan	7 ⁸	1 + 10	1 + 10	1 + 10	Yes
Minnesota	7	10 ⁹	1 + 10	1 + 10	Yes
Mississippi	7	10	1 + 10	1 + 10	Yes
Missouri	7	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 ¹⁰	1 + 10	10 ¹⁰	1 + 10	No
New Mexico	7	NA	1 + 10	1 + 10	Yes
New York	7 ¹¹	1 + 10	7 ¹¹	1 + 10	No
North Carolina	7 ¹²	10	1 + 10	1 + 10	Yes
North Dakota	7	7	1 + 10	1 + 10	Yes
Ohio	10 ¹³	1 + 10	1 + 10	1 + 10	Yes
Oklahoma	7	7	1 + 10	1 + 10	Yes
Oregon	10 ¹⁴	10	1 + 10	1 + 10	Yes
Pennsylvania	10 ¹⁵	10 ¹⁶	1 + 10 ¹⁵	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 ¹⁷	1 + 10	1 + 10	Yes
Texas	7 ¹⁸	10	1 + 10	1 + 10	Yes
Utah	7	10 ¹⁹	1 + 10	1 + 10	Yes
Vermont	7	1 + 10	1 + 10	1 + 10	Yes
Virginia	7 ²⁰	10	1 + 10	1 + 10	Yes
Washington	7	10	1 + 10	1 + 10	Yes
West Virginia	7	1 + 10	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 18.4.

- ¹ In area codes 303 and 720, 10-digit dialing is used.
- ² In area code 970, 7-digit dialing may be used.
- ³ In area codes 305, 407, 754, 786, and 954, 10-digit dialing is used.
- ⁴ In area codes 404, 678, and 770, 10-digit dialing is used.
- ⁵ In area codes 224 and 847, 1+ 10-digit dialing is used.
- ⁶ In area codes 606 and 859, 10-digit dialing is used, but some 7-digit dialing exists.
- ⁷ In area code 413, 7-digit dialing is used.
- ⁸ In area codes 248 and 947, 10-digit dialing is used.
- ⁹ In area codes 218, 320, and 507, 7-digit dialing is used.
- ¹⁰ In area codes 609, 856, and 908, 7-digit dialing is used.
- ¹¹ In area codes 212, 347, 646, 718, and 917, 1+10 digit dialing is used.
- ¹² In area codes 704 and 980, 10-digit dialing is used.
- ¹³ In area codes 216, 440, and 740, 7-digit dialing is used.
- ¹⁴ In area code 541, 7-digit dialing is used.
- ¹⁵ In area codes 570, 717, and 814, 7-digit dialing is used.
- ¹⁶ In some area codes, local calls to some other area codes may be dialed using 1+10 digits.
- ¹⁷ In area codes 615 and 931, 7-digit dialing is used.
- ¹⁸ In area codes 214, 281, 430, 469, 682, 713, 817, 832, 903, and 972, 10-digit dialing is used.
- ¹⁹ In area code 435, 7-digit dialing is used.
- ²⁰ In area codes 571 and 703, 10-digit dialing is used.

19 Universal Service -- High Cost, Schools and Libraries and Rural Health Care

There are four major universal service support programs: high cost, schools and libraries, Lifeline/LinkUp, and rural health care. The high-cost support mechanisms enable areas with very high costs to recover some of these costs from the support mechanisms, leaving a smaller remainder of the costs to be recovered through end-user rates or state universal support mechanisms. In this manner, the high-cost support mechanisms are intended to hold down rates and thereby further one of the most important goals of federal and state regulation -- the preservation and advancement of universal telephone service.

The high-cost support mechanisms include embedded high-cost loop (HCL) support,¹ safety net additive support, long-term support (LTS), local switching support (LSS), the forward-looking, high-cost model support, the interstate access support (IAS) for price-cap carriers, and interstate common line support (ICLS) for rate-of-return carriers.

Embedded high-cost loop support provides assistance to companies with above average non-traffic-sensitive local loop costs -- a term that refers to the costs of providing the loop connection between the customers and the central office. Safety net additive support was implemented beginning in January 2003. This mechanism provides support to companies that have large increases in telecommunications plant in service between one year and the next. At the same time, the Commission established a "safety valve" mechanism that provides support for additional investment made in telephone exchanges acquired from an unaffiliated carrier.²

LTS is also related to non-traffic-sensitive costs and provides support to members of the NECA common line pool, to allow them to charge a below-cost carrier common line rate. LSS is related to traffic-sensitive local switching costs and provides support to LECs with study areas of 50,000 or fewer access lines to help defray the higher switching cost of small LECs.

In October 1999, the Commission adopted a new high-cost support mechanism for non-rural carriers. The non-rural mechanism is based on the forward-looking costs of providing supported services as determined by the Commission's cost model. For each state, the cost model calculates the wire center average forward-looking cost per line incurred by non-rural carriers to provide supported services. These wire center average costs are then averaged at the

¹ 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.

² Under the Commission's rules, a carrier acquiring exchanges from an unaffiliated carrier receives the same per-line levels of high-cost support for which the acquired exchanges were eligible prior to their transfer. 47 C.F.R. § 54.305.

statewide level to determine the statewide average forward-looking cost per line. The forward-looking support mechanism provides support to non-rural carriers in those states that have a statewide average forward-looking cost per line greater than the national benchmark, which is set at 135 percent of the national average forward-looking cost per line.³

On May 31, 2000, the Commission established an explicit interstate access universal service support mechanism for price-cap carriers to replace the implicit support previously collected through interstate access charges. Like LTS, the purpose of this new mechanism is to provide explicit support to ensure reasonably affordable interstate rates. This is in contrast to the Commission's other high-cost support mechanisms, which provide support to enable states to ensure reasonably affordable and comparable intrastate rates.

In 2001, the Commission created the ICLS mechanism to convert implicit support in the access rate structure of rate-of-return carriers to explicit, portable support. ICLS recovers any shortfall between the allowed common line revenues of rate-of-return carriers and their subscriber line charge revenues and gradually replaces the carrier common line charge. The ICLS mechanism was implemented on July 1, 2002.

Table 19.1 shows high cost loop, LTS, LSS, high-cost model support, interstate access support, interstate common line support, and safety net additive support payments from 1986 to 2003.⁴ Table 19.2 shows payments by state for 2002.

A second major area of universal service support 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 the library is located in. In addition, schools and libraries located in rural areas receive an additional discount.

The third major area of universal service support is designed to allow rural health care providers to purchase telecommunications services at the same rates that health care providers located in urban areas pay for these services. The Commission's universal service rules permit eligible rural health care providers to receive discounts on telecommunications service so that they pay a rate no greater than the rate available in the nearest large city. The Commission

³ But cf. *Qwest Corp. v. FCC*, 2001 WL 864222 (10th Cir. July 31, 2001) (reversing and remanding the Ninth Order of the FCC “because it does not provide sufficient reasoning or record evidence to support [the] reasonableness [of its decision]”). See Federal-State Joint Board on Universal Service, Notice of Proposed Rulemaking, CC Docket No. 96-45, 17 FCC Rcd 2999 (2002) (seeking comment on court’s remand of the Ninth Order).

⁴ High-cost support payments are estimated based on projected payments for the first three quarters of 2003.

defined "nearest large city" as the closest city in the state with a population of at least 50,000. In addition, any rural health care provider that cannot obtain toll-free Internet access is entitled to receive the lesser of \$180 of toll charges per month, or the toll charges incurred for 30 hours per month, for telecommunications access to an Internet service provider.

Table 19.3 shows, on a state-by-state basis, funding commitments to schools and libraries for the July 1, 2000 - June 30, 2002 funding year. The commitments are broken down by type of service that was funded. Table 19.4 shows, on a state-by-state basis, rural health care funding disbursements by speed of service.

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 19.5 shows interstate and intrastate contribution rates since the first quarter of 1998. Table 19.6 shows changes in the share of contributions over time by type of service provider. Shares have changed because of differential pricing and growth trends.

Table 19.1
Universal Service Fund Payment History
(In Millions of Dollars)

Year	High-Cost Loop Support	Long-Term Support	Local Switching Support	New High-Cost Model Support	Interstate Access Support	Interstate Common Line Support	Safety Net Additive Support	Total Support	Cumulative Payments
1986	\$56	\$0	NA	\$0	\$0	\$0	\$0	\$56	\$56
1987	126	0	NA	0	0	0	0	126	181
1988	183	0	NA	0	0	0	0	183	365
1989	265	236	NA	0	0	0	0	500	865
1990	339	263	NA	0	0	0	0	602	1,467
1991	485	272	NA	0	0	0	0	757	2,223
1992	609	306	NA	0	0	0	0	915	3,138
1993	705	323	\$311	0	0	0	0	1,339	4,477
1994	725	347	304	0	0	0	0	1,376	5,853
1995	750	382	325	0	0	0	0	1,457	7,310
1996	763	426	348	0	0	0	0	1,536	8,846
1997	794	470	351	0	0	0	0	1,614	10,460
1998	827	476	390	0	0	0	0	1,694	12,154
1999	864	473	380	0	0	0	0	1,718	13,872
2000	872	479	385	220	283	0	0	2,239	16,111
2001	964	493	390	200	574	0	0	2,621	18,731
2002	1,065	498	402	228	611	187	0	2,991	21,723
2003	1,104	512	439	237	625	398	7	3,323	25,046

NA - Not Available.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *October 2002 Monitoring Report* (October 2002) and USAC filings. The 2002 figures are primarily taken from the USAC report, *Federal Universal Service Support Mechanisms Fund Size Projections for the Fourth Quarter 2002*. Estimates of payments for 2003 are primarily taken from USAC report, *Federal Universal Service Support Mechanisms Fund Size Projections for the Third Quarter of 2003*.

Table 19.2
High-Cost Support Payments by State: 2002
(In Thousands of Dollars)

	High-Cost Loop Support	Long-Term Loop Support	Local Switching Support	New High- Cost Model Support	Interstate Access Support	Interstate Common Line Support	Total Support
Alabama	\$15,352	\$7,677	\$6,590	\$42,645	\$21,658	\$2,844	\$96,768
Alaska	44,270	17,670	13,923	0	0	5,075	80,937
American Samoa	0	268	514	0	0	24	806
Arizona	26,568	3,286	12,430	0	19,249	2,648	64,181
Arkansas	52,439	15,302	8,046	0	6,171	11,192	93,150
California	32,683	12,985	6,658	0	30,268	2,903	85,497
Colorado	32,533	13,073	4,475	0	15,617	1,966	67,663
Connecticut	0	169	779	0	639	126	1,713
Delaware	0	0	0	0	370	0	370
District of Columbia	0	0	0	0	0	0	0
Florida	13,309	5,407	4,341	0	61,696	2,265	87,018
Georgia	56,988	18,507	13,450	0	13,590	7,432	109,967
Guam	0	2,609	0	0	0	0	2,609
Hawaii	2,003	82	1,833	0	2,255	2,415	8,588
Idaho	20,877	3,590	7,292	0	15,156	2,174	49,089
Illinois	11,389	6,363	12,319	0	12,877	4,723	47,672
Indiana	6,376	5,311	8,654	0	24,283	2,690	47,315
Iowa	6,213	7,938	15,917	0	6,472	6,821	43,361
Kansas	52,186	11,839	13,525	0	8,965	7,650	94,165
Kentucky	21,343	5,014	4,874	3,263	16,212	4,121	54,827
Louisiana	50,903	17,095	6,674	0	10,434	2,934	88,041
Maine	8,324	6,128	7,836	5,481	361	1,933	30,062
Maryland	212	95	467	0	3,519	290	4,582
Massachusetts	246	106	678	0	128	164	1,322
Michigan	25,602	10,161	8,095	0	239	2,027	46,123
Minnesota	25,726	13,863	19,649	0	4,314	9,058	72,611
Mississippi	23,287	6,068	4,183	116,195	16,659	2,171	168,562
Missouri	46,437	10,983	7,574	0	15,750	8,181	88,924
Montana	28,626	10,389	8,732	10,887	661	4,135	63,430
Nebraska	11,014	3,984	10,653	0	2,475	4,134	32,260
Nevada	6,937	965	6,897	0	8,868	1,130	24,796
New Hampshire	1,010	1,525	4,806	0	3,451	541	11,332
New Jersey	0	0	1,218	0	2,558	0	3,776
New Mexico	20,007	6,424	9,072	0	7,715	2,237	45,454
New York	12,268	6,793	17,792	0	19,783	1,715	58,351
North Carolina	16,242	12,110	5,453	0	23,139	3,811	60,754
North Dakota	12,817	6,211	9,278	0	668	4,333	33,308
Northern Mariana Islands	3,279	0	874	0	248	0	4,401
Ohio	7,855	5,398	4,492	0	15,126	1,825	34,697
Oklahoma	41,540	16,887	16,638	0	6,492	5,913	87,470
Oregon	25,702	9,593	7,575	0	22,835	2,775	68,480
Pennsylvania	1,568	14,605	6,385	0	15,990	7,552	46,100
Puerto Rico	1,682	95,080	0	0	0	1,278	98,039
Rhode Island	0	0	0	0	62	0	62
South Carolina	30,415	11,521	7,780	0	15,806	9,742	75,265
South Dakota	13,086	5,274	10,436	0	78	4,190	33,064
Tennessee	17,716	10,788	8,573	0	7,785	3,704	48,566
Texas	109,042	29,298	18,599	0	38,641	7,322	202,901
Utah	6,573	1,545	5,534	0	2,430	2,735	18,816
Vermont	5,873	2,479	4,505	9,118	1,958	1,824	25,757
Virgin Islands	18,584	7,480	0	0	0	5,841	31,905
Virginia	3,918	3,574	5,464	0	56,350	1,558	70,864
Washington	33,899	15,415	7,790	0	23,953	2,206	83,263
West Virginia	25,186	1,102	3,655	30,651	19,727	570	80,891
Wisconsin	21,619	13,220	22,638	0	1,418	10,520	69,414
Wyoming	13,693	4,672	6,286	9,880	6,141	1,336	42,009
Total	\$1,065,416	\$497,919	\$401,901	\$228,119	\$611,242	\$186,752	\$2,991,348

Source: The 2002 figures are primarily taken from the USAC report, *Federal Universal Service Support Mechanisms Fund Size Projections for the Fourth Quarter 2002*.

Table 19.3
Schools and Libraries Funding by State and by Type of Service
(Funding Period: July 1, 2001 Through June 30, 2002
Funds Committed Through March 31, 2003) 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	\$4,785,653	\$4,431,872	\$7,894,559	\$6,980,243	\$7,590,111	\$5,753,201	\$20,270,323	\$17,165,316
Alaska	516,146	227,959	6,665,229	6,160,529	3,975,118	3,031,452	11,156,494	9,419,941
American Samoa	531,064	468,236	1,159,643	1,043,399	433,372	426,526	2,124,079	1,938,161
Arizona	47,626,482	35,388,719	3,629,443	1,789,197	9,263,622	5,665,855	60,519,547	42,843,771
Arkansas	10,488,475	4,291,299	5,081,113	3,840,485	5,477,695	3,957,846	21,047,283	12,089,629
California	247,367,431	158,996,022	11,760,024	5,547,868	78,171,866	42,567,478	337,299,321	207,111,369
Colorado	6,878,158	11,153,386	3,792,792	1,532,071	6,025,745	4,482,842	16,696,696	17,168,299
Connecticut	8,985,687	8,629,650	2,459,525	2,082,717	6,272,992	5,729,042	17,718,203	16,441,408
Delaware	118,769	27,539	66,951	60,050	1,593,784	864,422	1,779,504	952,011
District of Columbia	1,275,587	816,433	1,658,752	1,434,743	4,588,036	1,407,126	7,522,376	3,658,303
Florida	16,187,619	10,444,957	4,013,265	3,030,501	35,716,844	30,366,929	55,917,727	43,842,388
Georgia	28,711,234	25,385,674	9,931,294	7,192,669	33,789,955	19,558,672	72,432,483	52,137,014
Guam	1,371,794	1,045,332	545,386	435,356	585,011	459,370	2,502,191	1,940,058
Hawaii	376,918	152,710	308,974	303,740	2,210,947	790,969	2,896,839	1,247,420
Idaho	1,009,628	787,032	915,881	705,206	2,459,052	1,632,951	4,384,562	3,125,189
Illinois	43,774,159	22,125,607	3,168,587	1,734,466	26,596,262	18,557,572	73,539,009	42,417,646
Indiana	1,173,976	609,733	11,217,808	6,825,055	9,889,673	7,258,547	22,281,456	14,693,335
Iowa	85,327	34,603	1,564,823	1,110,042	6,156,523	3,539,948	7,806,673	4,684,593
Kansas	804,936	448,944	2,549,206	1,916,119	7,582,189	5,022,558	10,936,331	7,387,620
Kentucky	5,660,958	4,061,260	2,451,661	1,963,476	14,113,690	10,158,560	22,226,309	16,183,297
Louisiana	12,800,458	11,436,361	4,125,397	3,611,205	11,153,644	8,800,255	28,079,499	23,847,820
Maine	805,212	578,844	1,003,779	832,601	4,569,036	3,190,498	6,378,027	4,601,943
Maryland	5,529,000	4,770,899	1,571,954	1,033,580	8,197,337	6,804,861	15,298,291	12,609,340
Massachusetts	18,248,438	15,378,017	12,790,444	2,039,626	12,590,971	8,361,502	43,629,853	25,779,145
Michigan	44,396,642	34,000,232	6,595,954	5,127,401	24,405,345	16,948,206	75,397,940	56,075,840
Minnesota	2,998,056	2,677,273	5,083,694	3,070,235	14,440,338	10,400,445	22,522,088	16,147,953
Mississippi	16,327,889	13,748,502	1,565,539	1,341,289	16,314,854	11,239,362	34,208,283	26,329,153
Missouri	5,531,830	5,335,139	4,137,795	2,635,598	24,555,041	14,708,997	34,224,666	22,679,734
Montana	799,873	746,704	855,888	629,096	2,082,644	1,627,798	3,738,405	3,003,598
Nebraska	7,041	2,436	1,164,367	835,865	5,033,740	4,264,055	6,205,148	5,102,355
Nevada	0	0	172,198	94,061	3,474,229	2,672,467	3,646,426	2,766,528
New Hampshire	24,441	21,831	424,202	285,719	800,844	504,086	1,249,487	811,636
New Jersey	30,469,371	20,908,567	3,311,133	2,339,362	18,583,685	12,816,307	52,364,189	36,064,237
New Mexico	47,198,217	37,223,880	4,218,527	1,074,817	6,448,528	4,521,931	57,865,272	42,820,627
New York	244,979,866	231,598,008	13,131,735	7,435,855	104,180,559	67,751,633	362,292,160	306,785,496
North Carolina	4,300,936	2,871,264	6,915,610	5,635,056	13,984,365	11,284,778	25,200,911	19,791,098
North Dakota	97,778	90,912	270,699	83,270	1,373,844	1,004,378	1,742,321	1,178,560
Northern Mariana Islands	1,804,724	1,608,023	381,060	359,078	167,562	134,697	2,353,346	2,101,798
Ohio	65,034,477	38,994,516	10,703,165	8,863,036	24,918,557	15,013,585	100,656,200	62,871,137
Oklahoma	13,026,313	11,961,180	5,761,915	3,015,931	10,819,485	8,203,811	29,607,713	23,180,921
Oregon	1,038,843	825,616	3,559,896	2,484,537	9,071,523	5,505,989	13,670,263	8,816,142
Pennsylvania	37,491,280	36,189,640	7,123,981	5,302,503	27,930,158	20,207,550	72,545,418	61,699,693
Puerto Rico	7,612,758	6,245,519	3,458,021	1,177,635	973,187	695,845	12,043,965	8,118,999
Rhode Island	858,194	785,747	732,604	589,077	3,466,746	2,915,185	5,057,544	4,290,010
South Carolina	25,190,588	17,380,382	1,168,452	281,706	17,353,042	12,984,415	43,712,082	30,646,503
South Dakota	4,820,440	4,420,399	305,170	78,497	2,906,962	805,389	8,032,572	5,304,285
Tennessee	13,220,024	8,704,844	18,871,905	14,991,028	12,664,625	9,653,281	44,756,553	33,349,154
Texas	166,800,157	133,605,956	13,361,147	7,937,274	56,686,184	39,661,679	236,847,488	181,204,908
Utah	218,322	121,342	1,644,003	1,258,548	3,794,784	3,201,653	5,657,109	4,581,542
Vermont	41,065	41,063	499,265	339,253	1,156,753	788,184	1,697,082	1,168,500
Virgin Islands	4,397,573	4,396,403	928,128	911,388	52,489	5,129	5,378,190	5,312,920
Virginia	3,436,734	2,745,594	3,227,605	2,351,103	14,854,037	12,441,412	21,518,376	17,538,110
Washington	3,535,549	2,569,927	1,724,477	857,779	13,128,188	10,949,386	18,388,214	14,377,092
West Virginia	2,294,058	982,248	377,835	221,693	5,439,770	3,693,222	8,111,663	4,897,164
Wisconsin	6,209,246	4,705,758	2,342,862	1,814,722	16,918,315	10,654,826	25,470,423	17,175,306
Wyoming	330,706	302,753	147,588	106,207	1,161,632	770,686	1,639,925	1,179,646
Totals	\$1,219,606,100	\$947,502,746	\$224,492,911	\$146,733,563	\$758,145,490	\$516,419,350	\$2,202,244,501	\$1,610,655,659

¹ Because of the appeals process, funding commitments have been made after the program year ended on June 30, 2002.

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

Table 19.4
Rural Health Care Fund Disbursements by Service Speed and by State
(Funding Period: July 1, 2001 Through June 30, 2002
Activity Through March 31, 2003) ¹

State	Voice Grade ²	Broadband ²		Other Service or Speed Unknown ²	Total
	56K to 199K	200K to 1.49Mb	1.5Mb and Faster		
Alabama	\$0	\$0	\$7,794	\$0	\$7,794
Alaska	5,328	5,199,341	5,056,226	691,987	10,952,882
Arizona	0	197,144	437,237	0	634,381
Arkansas	0	21,164	30,930	0	52,094
California	117,703	64,579	11,483	0	193,766
Colorado	0	907	127,009	0	127,916
Connecticut	0	0	0	0	0
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	0	1,775	0	0	1,775
Georgia	0	0	5,770	0	5,770
Hawaii	0	0	213,354	0	213,354
Idaho	0	43,303	7,317	0	50,620
Illinois	0	0	100,459	0	100,459
Indiana	0	0	0	0	0
Iowa	1,739	3,752	89,946	0	95,437
Kansas	33,181	90,574	92,531	0	216,287
Kentucky	0	173,217	180,714	0	353,930
Louisiana	0	0	10,823	0	10,823
Maine	18,876	0	0	0	18,876
Maryland	0	0	0	0	0
Massachusetts	0	0	0	0	0
Michigan	16,604	22,464	379,280	0	418,348
Minnesota	3,250	214,986	308,591	0	526,827
Mississippi	16,839	0	17,954	0	34,794
Missouri	0	6,526	26,161	0	32,686
Montana	1,879	15,336	423,187	0	440,402
Nebraska	15,295	69,315	367,318	0	451,928
Nevada	0	56,366	24,965	0	81,330
New Hampshire	0	251	0	0	251
New Jersey	0	0	0	0	0
New Mexico	0	119,119	21,496	0	140,616
New York	0	0	9,345	0	9,345
North Carolina	1,864	3,310	142,376	0	147,551
North Dakota	17,018	49,306	305,117	0	371,441
Ohio	143	3,692	7,570	0	11,405
Oklahoma	204	0	63,714	0	63,918
Oregon	2,690	24,612	38,632	0	65,934
Pennsylvania	1,982	1,211	0	0	3,193
Rhode Island	0	0	0	0	0
South Carolina	4,621	0	3,130	0	7,751
South Dakota	2,598	91,292	160,524	0	254,414
Tennessee	2,174	7,938	8,624	0	18,736
Texas	0	0	6,058	0	6,058
Utah	0	5,818	38,583	0	44,402
Vermont	0	56,424	11,255	0	67,679
Virginia	0	0	0	0	0
Washington	0	17,661	43,440	0	61,101
West Virginia	0	34,782	24,036	0	58,818
Wisconsin	0	36,493	24,790	0	61,283
Wyoming	4,127	29,810	62,805	0	96,742
Totals	\$268,116	\$6,662,469	\$8,890,544	\$691,987	\$16,513,116

¹ Because of the appeals process, funding commitments have been made after the program year ended on June 30, 2002.

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 200Kbps 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 19.5
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 5.8995 ²	1.10
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	

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 19.6
Share of Universal Service Contributions 1/
By Principal Type of Contributor

Service Provider Category	1997	1998	1999	2000	2001	2002	Qtr. 2 2003
Regional Bell Operating Companies (RBOCs) Including CLEC Affiliates.	11.7 %	14.4 %	14.3 %	16.2 %	18.3 %	20.3 %	19.7 %
Incumbent Local Exchange Carriers (ILECs) Other Than RBOCs	2.6	1.4	1.5	1.7	2.1	2.5	2.1
Competitive Local Exchange Carriers (CLECs) Local Resellers and Other Local Carriers Other Than RBOCs	0.8	1.3	2.6	2.2	2.7	2.9	3.9
Total: Fixed Local Service Providers	15.1	17.1	18.5	20.1	23.1	25.7	25.7
Payphone Providers	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Wireless Service Providers	3.3	5.1	6.6	9.2	12.0	15.2	23.5
RBOC Toll Service Providers	1.7	1.7	2.0	2.3	3.0	3.8	4.1
Other Toll Service Providers	79.9	76.0	72.9	68.3	61.9	55.2	46.6
Total: Toll Service Providers	81.6	77.7	74.9	70.6	64.9	59.0	50.7
Total All Filers	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 the second quarter of 2003 are based on shares of projected collected end-user revenues. Calculations exclude revenues for calls that both originate and terminate in foreign points. Calculations for years 1999 through 2001 include revenues for all filers. *De minimis* carriers were exempt from filing FCC Form 457 worksheets and are now exempt from filing FCC Form 499-Q worksheets.

Source: 1997 and 1998: FCC Form 457 filings; 1999 through 2001: FCC Form 499-A filings; 2002 and 2003: FCC Form 499-Q filings.

20 Universal Service -- Lifeline and LinkUp Programs

In 1984, the FCC, in conjunction with the states and local telephone companies, established the Lifeline program designed to promote universal service by providing low-income individuals with monthly discounts on the monthly cost of telephone service. In 1987, the FCC adopted LinkUp America, a program designed to help low-income households pay the initial costs of commencing telephone service. In June 2000, the Commission further expanded the Lifeline and LinkUp programs to address the needs of individuals living on tribal lands.

The LinkUp America program, which supports affordable connection to the network, has connected over 12 million telephone subscribers since 1987. In 2002, over 6.5 million subscribers paid reduced local rates under the Lifeline program.

The Commission's rules are designed to satisfy the 1996 Telecommunications Act which mandates "affordable" rates for "low-income consumers" in all regions of the nation. The rules also make the distribution of low-income support competitively and technologically neutral by allowing all eligible telecommunications carriers to receive support for offering Lifeline and LinkUp service.

1. Lifeline and LinkUp Support

In states that provide state Lifeline support, Lifeline and LinkUp are available to all low-income consumers who meet the eligibility criteria established by the state. These criteria must be based solely on income or factors directly related to 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. To receive Lifeline and LinkUp in a state that does not mandate state Lifeline support, consumers must certify, under penalty of perjury, that they participate in one of the following five federal programs: Medicaid, food stamps, Supplemental Security Income (SSI), federal public housing assistance, or the Low-Income Home Energy Assistance Program (LIHEAP).

Eligible consumers living on tribal lands qualify to receive federal Lifeline support if (a) they qualify under state criteria in a state that provides Lifeline support; (b) they certify, under penalty of perjury, that they receive benefits from one of the five federal programs listed above; or (c) they 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), National School Lunch Program's free lunch program, or Head Start (meeting the income-qualifying standard).

2. Lifeline Support

Under the Commission's rules, there are four tiers of federal Lifeline support. The first tier represents a monthly waiver of the federal subscriber line charge. The maximum federal subscriber line charge is \$6.50 per month, beginning July 1, 2003. All eligible subscribers receive first-tier support; which depending on their carrier may be between \$3.50 and \$6.50. Second-tier support is a \$1.75 per month reduction in the basic local rate, if all relevant non-federal regulatory authorities approve such a reduction. (All fifty states have approved.)

The third tier of federal support is based on the amount of additional state support mandated by the relevant state or otherwise provided by carriers. Federal support is available to match one-half of the non-federal support provided, up to a maximum of \$1.75 in federal support, assuming that the carrier has all necessary approvals to pass on the full amount of this support in discounts to subscribers.

Eligible subscribers living on tribal lands also qualify to receive a fourth tier of Lifeline support if they meet the eligibility standards described above. Tier-four support provides up to an additional \$25 per month towards reducing basic local service rates.

3. LinkUp Support

The Commission's LinkUp program provides qualified low-income individuals with a federally financed 50% discount (up to a maximum \$30 discount) on initial connection charges. These subscribers 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 residents of tribal lands may receive up to \$100 in discounts on initial connection charges. The \$100 maximum is based on the sum of the federally financed 50% discount (up to the \$30 maximum) available to all qualified low-income individuals, plus a dollar-for-dollar match (up to \$70) for connection charges above \$60.

4. Services

Basic service must include, at a minimum: single-party service, voice-grade access to the public switched telephone network, dual-tone multifrequency signaling or its functional digital equivalent, access to emergency services, access to operator services, access to interexchange service, access to directory assistance, and toll-limitation. The federal program compensates eligible telecommunications carriers for toll-limitation based on the carrier's incremental cost of providing toll-limitation services (TLS).

The FCC monitors subscriber participation and telephone usage to determine program benefits and costs. Historical tables by state can be downloaded from the *Monitoring Report's Low-Income Support* section of the **FCC-State Link** web site at www.fcc.gov/wcb/stats.

Table 20.1 reports Lifeline monthly support by state or jurisdiction as of December 31, 2002. The table shows 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 20.2 reports annual historical Lifeline subscriber data by state or jurisdiction for years 1991 through 2002. Historical data may be found in the *Monitoring Reports* section of the **FCC-State Link** web site.

Table 20.3 reports annual tribal and non-tribal subscriber data by state or jurisdiction for the years 2000 to 2002. The expanded Lifeline assistance program addresses the needs of Native Americans who live on tribal lands. The program has grown from 18,688 the first year of the program to 108,671 in 2002.

Table 20.4 reports annual historical LinkUp subscriber data by state or jurisdiction for years 1991 through 2002. LinkUp program participation was first certified in 1987. Historical data may be found in the *Monitoring Reports* section of the **FCC-State Link** web site.

Table 20.5 reports annual tribal and non-tribal LinkUp subscriber data by state or jurisdiction for the years 2000 to 2002. In the first year of the expanded program, 2,021 eligible subscribers began receiving telephone service; in 2001, 22,963 eligible subscribers received LinkUp support; and in 2002, 27,476 subscribers received expanded LinkUp.

Table 20.6 reports annual historical Lifeline payments to carriers in each state or jurisdiction and shows total reimbursements to each state or jurisdiction. The report provides Lifeline support totals for payments made to subscribers through local rate discounts. The payments shown in these tables include TLS and Presubscribed Interexchange Carrier Charge (PICC) data; however, these tables do not include state or local rate contributions. PICC charges were phased out as of July 2000.

Table 20.7 reports annual historical data for the LinkUp connection assistance payments to carriers in each state or jurisdiction. The LinkUp program includes connection discounts reflected in the reimbursements to local carriers.

Table 20.8 reports low-income support, by state or jurisdiction, for Lifeline and LinkUp payments between January 2001 and December 2002. Total carrier payments data include local rate reductions for the presubscribed interexchange carrier charges (PICCs) through July 2000, and the carrier's incremental cost of providing toll-limitation services (TLS) in each state or jurisdiction. American Indian and Native American tribal data are also reported in this table showing the 2001 and 2002 data. Data will appear only for states where eligible subscribers living on tribal lands qualify to receive low-income support.

Table 20.1
Lifeline Monthly Support by State or Jurisdiction
(As of December 31, 2002)

	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	\$6.75	\$7.75	\$7.74	\$0.00	\$3.50	\$3.18	\$0.00	\$1.75	\$1.59	\$6.75	\$9.50	\$9.33	\$6.75	\$13.00	\$12.51
Alaska	7.75	7.75	7.75	3.50	3.50	3.50	1.75	1.75	1.75	9.50	9.50	9.50	13.00	13.00	13.00
American Samoa	7.75	7.75	7.75	0.00	0.00	0.00	0.00	0.00	0.00	7.75	7.75	7.75	7.75	7.75	7.75
Arizona	7.28	7.75	7.55	0.00	3.50	2.62	0.00	1.75	1.31	7.28	9.50	8.86	7.28	13.00	11.48
Arkansas	7.02	7.75	7.25	0.00	3.50	0.00	0.00	1.75	0.46	7.02	9.50	7.71	7.02	13.00	7.71
California	5.25	7.75	6.55	2.16	3.50	2.43	1.08	1.75	1.22	6.33	9.50	7.76	8.49	13.00	10.20
Colorado	7.75	7.75	7.75	0.00	3.50	3.49	0.00	1.75	1.75	7.75	9.50	9.50	7.75	13.00	12.99
Connecticut	6.10	7.53	7.53	1.16	1.16	1.16	0.58	0.58	0.58	6.68	8.11	8.11	7.84	9.27	9.27
Delaware	7.75	7.75	7.75	2.30	2.30	2.30	1.15	1.15	1.15	8.90	8.90	8.90	11.20	11.20	11.20
District of Columbia	5.61	5.61	5.61	3.50	3.50	3.50	1.75	1.75	1.75	7.36	7.36	7.36	10.86	10.86	10.86
Florida	7.75	7.75	7.75	3.04	3.50	3.50	1.52	1.75	1.75	9.27	9.50	9.50	12.31	13.00	12.99
Georgia	7.75	7.75	7.75	0.00	3.50	3.43	0.00	1.75	1.71	7.75	9.50	9.46	7.75	13.00	12.89
Guam	7.75	7.75	7.75	3.50	3.50	3.50	1.75	1.75	1.75	9.50	9.50	9.50	13.00	13.00	13.00
Hawaii	7.75	7.75	7.75	0.00	0.00	0.00	0.00	0.00	0.00	7.75	7.75	7.75	7.75	7.75	7.75
Idaho	6.75	7.75	7.75	0.00	3.50	3.48	0.00	1.75	1.74	6.75	9.50	9.49	6.75	13.00	12.97
Illinois	6.24	7.75	6.65	0.00	3.50	1.65	0.00	1.75	0.82	6.24	9.50	7.47	6.24	13.00	9.12
Indiana	7.27	7.75	7.38	0.00	0.66	0.51	0.00	0.33	0.25	7.27	8.08	7.64	7.27	8.74	8.15
Iowa	5.25	7.75	6.92	0.00	3.50	0.03	0.00	1.75	0.01	5.25	9.50	6.93	5.25	13.00	6.96
Kansas	5.25	7.75	7.07	0.00	3.50	3.50	0.00	1.75	1.75	5.25	9.50	8.82	5.25	13.00	12.31
Kentucky	6.94	7.75	7.67	2.56	3.50	3.48	1.28	1.75	1.74	8.22	9.50	9.41	10.78	13.00	12.89
Louisiana	6.75	7.75	7.75	0.00	0.00	0.00	0.00	0.00	0.00	6.75	7.75	7.75	6.75	7.75	7.75
Maine	7.75	7.75	7.75	2.28	3.50	3.48	1.14	1.75	1.74	8.89	9.50	9.49	11.17	13.00	12.98
Maryland	7.43	7.75	7.43	0.84	3.50	3.50	0.42	1.75	1.75	7.85	9.50	9.18	8.69	13.00	12.68
Massachusetts	6.75	7.75	7.75	6.00	6.00	6.00	1.75	1.75	1.75	8.50	9.50	9.50	14.50	15.50	15.50
Michigan	7.09	7.75	7.19	0.00	2.04	2.01	0.00	1.02	1.01	7.09	8.77	8.19	7.09	10.81	10.21
Minnesota	6.75	7.75	7.05	0.00	0.00	0.00	0.00	0.00	0.00	6.75	7.75	7.05	6.75	7.75	7.05
Mississippi	6.75	7.75	7.75	0.00	3.50	3.39	0.00	1.75	1.69	6.75	9.50	9.44	6.75	13.00	12.83
Missouri	7.02	7.75	7.11	0.00	1.14	1.00	0.00	0.57	0.50	7.02	8.32	7.61	7.02	9.46	8.61
Montana	7.75	7.75	7.75	0.00	3.50	3.09	0.00	1.75	1.54	7.75	9.50	9.29	7.75	13.00	12.38
Nebraska	6.61	7.75	7.08	0.00	3.50	3.48	0.00	1.75	1.74	6.61	9.50	8.82	6.61	13.00	12.30
Nevada	5.25	7.75	6.39	0.00	3.50	3.03	0.00	1.75	1.51	5.25	9.50	7.91	5.25	13.00	10.94
New Hampshire	7.75	7.75	7.75	0.00	0.00	0.00	0.00	0.00	0.00	7.75	7.75	7.75	7.75	7.75	7.75
New Jersey	7.42	7.75	7.74	0.00	1.76	1.75	0.00	0.88	0.87	7.42	8.63	8.62	7.42	10.39	10.36
New Mexico	5.25	7.75	7.68	0.00	3.50	3.33	0.00	1.75	1.66	5.25	9.50	9.35	5.25	13.00	12.68
New York	6.44	7.75	7.67	0.00	3.50	3.19	0.00	1.75	1.60	6.44	9.50	9.27	6.44	13.00	12.46
North Carolina	7.75	7.75	7.75	3.50	3.50	3.50	1.75	1.75	1.75	9.50	9.50	9.50	13.00	13.00	13.00
North Dakota	5.25	7.75	7.72	0.00	3.50	2.25	0.00	1.75	1.12	5.25	9.50	8.84	5.25	13.00	11.09
N. Marianna Islands	6.75	6.75	6.75	0.00	0.00	0.00	0.00	0.00	0.00	6.75	6.75	6.75	6.75	6.75	6.75
Ohio	6.94	7.75	7.27	0.00	3.50	0.96	0.00	1.75	0.48	6.94	9.50	7.75	6.94	13.00	8.71
Oklahoma	5.25	7.75	7.15	0.00	1.16	1.13	0.00	0.58	0.57	5.25	8.33	7.72	5.25	9.49	8.85
Oregon	7.75	7.75	7.75	3.50	3.50	3.50	1.75	1.75	1.75	9.50	9.50	9.50	13.00	13.00	13.00
Pennsylvania	6.01	7.75	7.72	0.00	2.50	1.20	0.00	1.25	0.60	6.01	9.00	8.32	6.01	11.50	9.52
Puerto Rico	6.75	7.75	7.75	3.30	3.50	3.31	1.65	1.75	1.66	8.40	9.50	9.41	11.70	13.00	12.72
Rhode Island	7.75	7.75	7.75	3.40	3.40	3.40	1.70	1.70	1.70	9.45	9.45	9.45	12.85	12.85	12.85
South Carolina	7.61	7.75	7.75	0.00	3.50	3.49	0.00	1.75	1.74	7.61	9.50	9.49	7.61	13.00	12.98
South Dakota	5.25	7.75	7.03	0.00	0.00	0.00	0.00	0.00	0.00	5.25	7.75	7.03	5.25	7.75	7.03
Tennessee	7.28	7.75	7.71	0.00	3.50	3.23	0.00	1.75	1.62	7.28	9.50	9.33	7.28	13.00	12.56
Texas	5.25	7.75	7.13	0.00	3.50	3.16	0.00	1.75	1.58	5.25	9.50	8.71	5.25	13.00	11.87
Utah	7.75	7.75	7.75	3.50	3.50	3.50	1.75	1.75	1.75	9.50	9.50	9.50	13.00	13.00	13.00
Vermont	7.75	7.75	7.75	2.70	3.50	3.48	1.35	1.75	1.74	9.10	9.50	9.49	11.80	13.00	12.97
Virginia	7.26	7.75	7.51	1.76	3.50	3.35	0.88	1.75	1.68	8.14	9.50	9.19	9.90	13.00	12.54
Washington	6.75	7.75	7.75	0.00	3.50	3.30	0.00	1.75	1.65	6.75	9.50	9.40	6.75	13.00	12.69
West Virginia	7.75	7.75	7.75	0.00	1.42	1.28	0.00	0.71	0.64	7.75	8.46	8.39	7.75	9.88	9.67
Wisconsin	6.81	7.75	7.08	0.00	3.50	1.21	0.00	1.75	0.60	6.81	9.50	7.68	6.81	13.00	8.89
Wyoming	7.75	7.75	7.75	0.00	3.50	3.50	0.00	1.75	1.75	7.75	9.50	9.50	7.75	13.00	13.00
Nationwide	\$5.25	\$7.75	\$7.02	\$0.00	\$6.00	\$2.58	\$0.00	\$1.75	\$1.26	\$5.25	\$9.50	\$8.28	\$5.25	\$15.50	\$10.86

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 (USAC).

Table 20.2
Lifeline Assistance Subscribers
By State or Jurisdiction

State or Jurisdiction	1991	1992	1993	1994	1995	1996	1997 ¹	1998	1999	2000	2001 ²	2002 ²
Alabama	0	0	0	0	2,648	11,052	14,346	17,201	18,676	21,493	23,904	27,264
Alaska	0	0	0	887	1,445	1,684	1,761	2,530	4,321	9,291	16,252	23,598
American Samoa	0	0	0	0	0	0	0	156	427	657	764	757
Arizona	6,214	5,748	7,587	9,146	9,820	10,679	9,438	21,461	22,118	25,283	40,165	74,421
Arkansas	7,295	7,479	7,370	6,859	7,988	9,730	8,926	8,870	8,843	9,228	9,042	10,395
California	1,792,884	2,000,234	2,327,740	2,534,160	2,817,982	3,032,960	3,000,571	3,105,855	3,157,706	3,196,657	3,245,993	3,218,365
Colorado	17,871	20,110	18,814	18,136	16,992	22,195	22,452	21,950	23,995	26,645	26,928	29,867
Connecticut	0	0	15,294	50,510	62,982	62,610	61,683	59,547	61,437	64,745	60,680	57,992
Delaware	0	0	0	0	0	0	0	368	606	756	1,278	1,779
District of Columbia	2,866	5,422	12,344	11,572	10,252	9,888	7,580	9,404	10,593	11,236	12,869	11,342
Florida	0	0	0	61,442	108,431	134,258	129,723	131,749	129,980	134,281	140,829	142,383
Georgia	31,681	58,497	67,112	72,548	79,545	79,606	75,341	73,660	74,825	73,037	70,158	68,192
Guam	0	0	0	0	0	0	0	313	905	2,033	2,486	2,954
Hawaii	5,950	5,862	6,005	6,200	6,444	6,731	6,465	9,008	12,590	15,381	14,869	14,136
Idaho	8,411	8,149	8,212	7,090	7,347	7,526	7,408	6,907	14,780	19,696	24,560	27,659
Illinois	0	0	26	0	0	0	0	29,104	49,347	57,816	70,036	87,381
Indiana	0	0	0	0	0	0	0	12,439	19,058	21,363	31,688	40,496
Iowa	0	0	0	0	0	0	0	2,460	6,105	11,862	14,062	18,964
Kansas	0	0	0	0	0	0	0	4,260	5,591	8,564	13,034	13,858
Kentucky	0	0	0	0	0	0	0	5,044	25,040	39,560	45,257	60,807
Louisiana	0	0	0	0	0	0	0	5,838	10,435	15,476	19,175	21,299
Maine	53,020	63,411	70,029	68,482	62,949	61,177	63,553	63,407	67,401	76,367	82,807	85,136
Maryland	5,203	5,395	5,228	5,226	4,663	4,028	3,964	3,784	3,885	3,948	3,985	3,019
Massachusetts	131,635	143,216	160,221	165,723	167,182	162,384	156,294	161,657	167,699	165,519	162,163	163,027
Michigan	96,044	116,398	130,586	138,870	135,599	131,786	129,337	129,208	132,432	141,541	132,174	117,963
Minnesota	57,075	51,151	55,380	59,431	51,089	48,494	47,575	49,073	54,787	56,977	51,023	47,785
Mississippi	2,153	2,405	4,493	8,438	9,717	9,282	8,321	10,471	13,370	16,694	19,946	22,509
Missouri	16,980	17,295	17,356	15,807	13,897	11,272	10,368	7,885	10,709	18,982	31,463	35,319
Montana	5,405	5,698	6,617	6,744	6,813	8,031	7,613	7,963	9,570	11,125	14,351	15,894
Nebraska	0	0	0	0	0	0	0	9,650	11,434	14,462	14,704	15,293
Nevada	5,748	6,339	7,528	8,927	9,408	8,472	9,284	3,438	10,551	17,486	26,605	37,909
New Hampshire	0	0	0	0	0	0	0	2,581	5,205	6,453	6,963	7,255
New Jersey	0	0	0	0	0	0	0	5,478	6,434	29,095	42,234	39,207
New Mexico	15,190	18,660	28,742	32,244	28,380	30,075	30,314	30,816	32,843	36,863	39,320	47,665
New York	393,684	456,174	522,684	592,705	705,871	756,657	698,267	703,001	657,267	586,660	509,631	494,016
North Carolina	15,812	21,208	23,496	23,446	22,791	23,086	22,595	29,640	44,434	62,507	84,670	100,566
North Dakota	10,610	10,664	10,029	9,411	8,657	7,146	7,369	10,895	11,968	13,440	15,712	19,473
Northern Mariana Isls.	0	0	0	0	0	0	0	192	494	427	445	481
Ohio	15,712	33,450	44,801	47,126	54,706	58,392	60,366	69,358	109,202	167,213	230,950	278,335
Oklahoma	0	0	0	0	0	532	532	1,521	2,454	17,768	67,122	119,181
Oregon	23,064	25,229	28,305	30,475	35,820	34,804	31,213	27,953	28,934	30,374	31,488	36,555
Pennsylvania	0	0	0	0	0	4,797	7,114	23,202	40,168	48,975	66,916	90,377
Puerto Rico	0	0	0	0	0	0	0	10,168	16,895	17,720	18,002	59,493
Rhode Island	23,765	26,906	38,672	39,992	40,835	42,524	43,881	45,066	46,244	47,412	46,702	45,892
South Carolina	0	0	0	0	10,624	16,498	18,386	22,222	21,091	20,820	21,184	21,896
South Dakota	4,924	5,018	5,076	3,561	3,690	3,718	3,708	10,698	11,532	13,442	20,746	28,064
Tennessee	0	18,749	20,419	20,721	19,934	19,926	18,819	22,915	30,347	38,884	45,696	49,074
Texas	48,453	96,405	103,232	136,352	165,609	190,095	193,444	210,672	236,934	258,812	305,869	431,105
Utah	21,565	27,717	28,379	28,157	26,930	24,088	22,625	20,096	19,237	19,394	19,970	19,503
Vermont	20,661	21,895	22,973	24,322	25,624	24,791	25,356	26,475	28,464	29,740	30,235	29,621
Virgin Islands	0	0	316	594	253	296	471	567	402	511	6	0
Virginia	17,365	19,143	21,293	22,100	20,744	22,180	23,187	22,040	22,306	21,658	20,630	17,933
Washington	68,235	74,879	85,571	90,148	87,276	84,149	63,965	61,563	61,809	68,143	78,442	84,177
West Virginia	4,262	4,115	4,160	4,704	4,230	4,336	5,164	5,320	5,546	5,294	4,999	4,314
Wisconsin	54,137	55,829	54,576	59,744	58,071	50,714	50,894	42,514	59,331	62,798	67,136	68,329
Wyoming	416	1,366	1,271	1,119	818	776	864	1,113	1,337	1,363	1,741	2,146
Industry Total	2,984,290	3,440,216	3,971,937	4,423,119	4,914,056	5,233,425	5,110,537	5,380,726	5,640,094	5,893,927	6,200,059	6,592,421

¹ Subscriber data were not actually collected in 1997. Subscribers for 1997 were estimated by USAC.

² Average number of subscribers reported for 2001 and 2002 for companies requesting reimbursement (includes true-ups through March 31, 2003). Ninety-nine percent of all eligible companies have reported to USAC for reimbursement at this time.

Source: Universal Service Administrative Company (USAC).

Table 20.3
Lifeline Assistance Subscribers for Tribal and Non-Tribal Areas
By State or Jurisdiction

State or Jurisdiction	2000		2001		2002	
	Non-Tribal	Tribal	Non-Tribal	Tribal	Non-Tribal	Tribal
Alabama	21,493	0	23,904	0	27,264	0
Alaska	6,176	3,115	8,631	7,621	12,223	11,375
American Samoa	657	0	764	0	757	0
Arizona	23,971	1,312	32,214	7,951	50,093	24,328
Arkansas	9,228	0	9,042	0	10,395	0
California	3,196,638	19	3,245,896	97	3,218,218	147
Colorado	26,643	2	26,924	4	29,832	35
Connecticut	64,745	0	60,680	0	57,992	0
Delaware	756	0	1,278	0	1,779	0
District of Columbia	11,236	0	12,869	0	11,342	0
Florida	134,280	1	140,829	0	142,383	0
Georgia	73,037	0	70,158	0	68,192	0
Guam	2,033	0	2,486	0	2,954	0
Hawaii	15,381	0	14,869	0	14,136	0
Idaho	19,691	5	24,498	62	27,547	112
Illinois	57,816	0	70,036	0	87,381	0
Indiana	21,363	0	31,688	0	40,496	0
Iowa	11,862	0	14,059	3	18,961	3
Kansas	8,564	0	13,034	0	13,858	0
Kentucky	39,560	0	45,257	0	60,807	0
Louisiana	15,476	0	19,175	0	21,299	0
Maine	76,356	11	82,371	436	84,641	495
Maryland	3,948	0	3,985	0	3,019	0
Massachusetts	165,519	0	162,163	0	163,026	1
Michigan	141,540	1	132,013	161	117,759	204
Minnesota	56,929	48	50,846	177	47,530	255
Mississippi	16,694	0	19,946	0	22,509	0
Missouri	18,982	0	31,461	2	35,315	4
Montana	10,138	987	12,307	2,044	13,349	2,545
Nebraska	14,361	101	14,541	163	15,097	196
Nevada	17,432	54	26,525	80	37,797	112
New Hampshire	6,453	0	6,963	0	7,255	0
New Jersey	29,095	0	42,234	0	39,207	0
New Mexico	36,546	317	38,144	1,176	44,495	3,170
New York	586,657	3	509,604	27	493,837	179
North Carolina	62,506	1	84,667	3	100,563	3
North Dakota	12,979	461	14,598	1,114	17,528	1,945
Northern Mariana Islands	427	0	445	0	481	0
Ohio	167,213	0	230,950	0	278,335	0
Oklahoma	7,138	10,630	38,645	28,477	67,337	51,844
Oregon	30,368	6	31,445	43	36,436	119
Pennsylvania	48,975	0	66,916	0	90,377	0
Puerto Rico	17,720	0	18,002	0	59,493	0
Rhode Island	47,412	0	46,702	0	45,892	0
South Carolina	20,817	3	21,179	5	21,891	5
South Dakota	12,223	1,219	16,242	4,504	19,595	8,469
Tennessee	38,884	0	45,695	1	49,074	0
Texas	258,810	2	305,435	434	429,006	2,099
Utah	19,386	8	19,941	29	19,427	76
Vermont	29,740	0	30,235	0	29,621	0
Virgin Islands	511	0	6	0	0	0
Virginia	21,658	0	20,630	0	17,933	0
Washington	67,792	351	76,639	1,803	83,625	552
West Virginia	5,294	0	4,999	0	4,314	0
Wisconsin	62,785	13	67,063	73	68,177	152
Wyoming	1,345	18	1,647	94	1,900	246
Industry Total	5,875,239	18,688	6,143,475	56,584	6,483,750	108,671

Note: The average number of subscribers reported for 2000, 2001, and 2002 includes true-ups through March 2003. Starting in October 2000, low-income subscribers are listed as either tribal or non-tribal due to implementation of the *Tribal Order*. Ninety-nine percent of all eligible telecommunications carriers (ETCs) have reported to date.

Source: Universal Service Administrative Company (USAC).

Table 20.4
LinkUp Assistance Subscribers
By State or Jurisdiction

State or Jurisdiction	1991	1992	1993	1994	1995	1996	1997 ¹	1998	1999	2000	2001 ²	2002 ²
Alabama	2,182	1,381	736	308	276	362	NA	2,277	1,590	1,469	1,427	1,158
Alaska	0	0	0	395	777	732	NA	917	982	774	2,168	3,523
American Samoa	0	0	0	0	0	0	NA	122	89	53	61	41
Arizona	206	88	257	367	387	906	NA	528	4,805	4,883	15,117	17,755
Arkansas	6,522	7,067	12,082	16,124	8,549	11,577	NA	8,183	5,395	3,270	2,705	5,737
California	0	0	0	0	0	0	NA	1,542,297	1,325,904	1,216,709	1,160,770	1,072,705
Colorado	1,749	1,614	1,257	859	593	2,216	NA	2,537	1,278	1,115	1,134	655
Connecticut	6,661	9,164	10,316	17,176	18,410	13,934	NA	8,938	6,829	4,442	3,774	4,137
Delaware	0	0	0	0	7	406	NA	132	62	48	450	781
District of Columbia	510	1,145	1,863	1,675	1,920	1,784	NA	26	28	3	0	0
Florida	3,824	4,690	2,811	2,290	1,639	3,831	NA	9,799	9,266	9,684	10,102	13,228
Georgia	13,052	28,108	21,446	20,753	20,656	15,368	NA	10,701	8,723	4,349	3,711	4,436
Guam	0	0	0	0	0	0	NA	201	703	787	1,093	1,392
Hawaii	1,326	1,708	2,047	2,746	3,989	3,276	NA	6,408	10,126	10,511	8,821	5,880
Idaho	362	396	465	658	571	671	NA	793	1,231	2,169	1,464	1,023
Illinois	11,721	0	21,278	24,365	15,794	10,077	NA	12,304	12,934	13,052	29,521	43,514
Indiana	2,747	4,939	4,782	5,010	3,001	4,318	NA	4,605	5,507	5,978	13,250	21,517
Iowa	5,522	5,221	4,784	4,382	3,249	2,575	NA	2,093	1,449	1,159	1,463	2,677
Kansas	582	635	557	493	435	421	NA	1,385	1,483	3,020	3,715	3,435
Kentucky	8,931	11,660	10,963	11,819	13,902	14,173	NA	7,550	9,815	8,375	7,959	8,744
Louisiana	18,693	12,992	7,053	4,943	3,275	1,571	NA	3,911	1,358	989	821	1,812
Maine	12,132	5,576	14,450	19,363	14,798	20,783	NA	21,640	25,887	26,224	27,136	26,695
Maryland	3,540	3,168	2,772	2,837	2,613	2,091	NA	1,264	908	637	419	48
Massachusetts	4,366	4,661	17,390	19,464	18,601	11,727	NA	5,864	10,036	6,795	5,688	3,134
Michigan	36,639	40,339	36,512	34,640	26,198	20,097	NA	18,587	19,501	19,215	24,061	28,231
Minnesota	787	427	443	1,871	834	832	NA	1,058	521	356	322	512
Mississippi	1,369	932	2,371	4,236	4,151	2,974	NA	1,819	1,224	952	867	785
Missouri	840	766	735	1,633	742	627	NA	4,777	1,150	6,510	8,286	8,557
Montana	1,157	1,181	1,291	1,253	988	1,909	NA	1,676	1,539	2,014	2,174	1,790
Nebraska	688	878	650	522	496	331	NA	707	1,181	1,947	2,753	2,268
Nevada	487	562	866	685	708	640	NA	117	3,284	3,577	3,763	6,029
New Hampshire	1,009	1,544	1,805	1,570	1,312	1,246	NA	1,315	1,374	827	757	440
New Jersey	580	696	565	567	342	237	NA	1,541	474	1,086	1,041	1,641
New Mexico	4,178	5,848	9,963	12,600	12,277	9,171	NA	7,894	7,552	3,157	2,750	3,220
New York	241,477	290,856	238,856	290,922	327,123	346,089	NA	199,181	53,961	41,683	43,245	53,285
North Carolina	2,348	2,175	1,762	1,207	841	569	NA	2,408	3,237	3,481	3,260	3,976
North Dakota	373	337	398	355	355	220	NA	1,446	1,026	1,220	2,035	2,446
Northern Mariana Isls.	0	0	0	0	0	0	NA	1,475	3,891	225	105	890
Ohio	18,239	37,191	46,028	40,071	29,338	23,196	NA	19,058	25,880	47,868	62,901	59,541
Oklahoma	1,582	1,271	1,281	1,087	1,040	1,260	NA	3,121	1,496	3,899	12,382	15,579
Oregon	3,657	4,588	6,335	7,144	8,043	7,862	NA	5,901	4,863	8,335	7,857	7,818
Pennsylvania	85,695	97,585	94,897	100,651	99,105	92,128	NA	63,713	54,251	28,737	46,344	50,239
Puerto Rico	4,308	3,886	3,138	3,455	4,116	3,640	NA	3,870	1,783	1,210	1,356	8,408
Rhode Island	960	1,483	2,002	2,808	2,728	2,100	NA	1,766	1,565	1,375	784	446
South Carolina	2,265	1,897	2,113	2,053	1,495	1,158	NA	2,270	2,052	1,699	1,497	1,905
South Dakota	443	439	362	451	369	221	NA	2,330	1,698	2,099	4,228	6,504
Tennessee	5,418	4,126	5,203	5,004	3,561	3,684	NA	4,190	6,023	7,240	6,001	6,190
Texas	30,915	41,381	44,184	66,010	72,210	75,708	NA	121,794	121,925	118,092	85,020	71,302
Utah	1,781	6,286	4,843	3,758	3,525	5,584	NA	2,880	2,061	1,242	1,204	792
Vermont	2,073	2,104	2,217	2,485	2,074	1,396	NA	1,366	1,500	2,386	2,994	2,109
Virgin Islands	0	0	38	111	35	13	NA	199	106	100	76	0
Virginia	14,642	14,523	15,701	15,797	15,847	14,428	NA	10,261	7,702	4,619	2,945	685
Washington	30,134	34,413	37,419	43,429	41,462	45,284	NA	27,780	27,456	28,880	37,286	41,685
West Virginia	363	322	586	577	657	997	NA	488	865	759	483	392
Wisconsin	40,515	40,942	37,380	34,903	28,209	21,937	NA	25,933	27,187	20,404	21,460	22,089
Wyoming	95	94	109	82	56	17	NA	21	50	199	215	110
Industry Total	639,645	743,285	737,362	837,964	823,679	808,354	NA	2,195,417	1,834,766	1,691,888	1,693,221	1,653,891

NA - Not available.

¹ Subscriber data were not actually collected in 1997.

² Subscribers reported for 2001 and 2002 include true-ups through March 2003 for companies requesting reimbursement. Approximately ninety-nine percent of all eligible companies have reported at this time.

Source: Universal Service Administrative Company (USAC)

Table 20.5
LinkUp Assistance Subscribers for Tribal and Non-Tribal Areas
By State or Jurisdiction

State or Jurisdiction	2000		2001		2002	
	Non-Tribal	Tribal	Non-Tribal	Tribal	Non-Tribal	Tribal
Alabama	1,469	0	1,427	0	1,158	0
Alaska	599	175	1,040	1,128	2,343	1,180
American Samoa	53	0	61	0	41	0
Arizona	4,432	451	2,381	12,736	2,147	15,608
Arkansas	3,270	0	2,705	0	5,737	0
California	1,216,706	3	1,160,769	1	1,072,698	7
Colorado	1,115	0	1,133	1	651	4
Connecticut	4,442	0	3,774	0	4,137	0
Delaware	48	0	450	0	781	0
District of Columbia	3	0	0	0	0	0
Florida	9,684	0	10,102	0	13,228	0
Georgia	4,349	0	3,711	0	4,436	0
Guam	787	0	1,093	0	1,392	0
Hawaii	10,511	0	8,821	0	5,880	0
Idaho	2,169	0	1,459	5	1,012	11
Illinois	13,052	0	29,521	0	43,514	0
Indiana	5,978	0	13,248	2	21,517	0
Iowa	1,159	0	1,463	0	2,677	0
Kansas	3,020	0	3,715	0	3,435	0
Kentucky	8,375	0	7,959	0	8,744	0
Louisiana	989	0	821	0	1,812	0
Maine	26,206	18	26,453	683	26,610	85
Maryland	637	0	419	0	48	0
Massachusetts	6,795	0	5,688	0	3,134	0
Michigan	19,215	0	24,060	1	28,226	5
Minnesota	356	0	293	29	490	22
Mississippi	952	0	867	0	785	0
Missouri	6,510	0	8,285	1	8,556	1
Montana	1,549	465	1,105	1,069	738	1,052
Nebraska	1,940	7	2,712	41	2,240	28
Nevada	3,574	3	3,754	9	6,020	9
New Hampshire	827	0	757	0	440	0
New Jersey	1,086	0	1,041	0	1,641	0
New Mexico	2,953	204	1,894	856	1,261	1,959
New York	41,680	3	43,215	30	53,279	6
North Carolina	3,481	0	3,260	0	3,976	0
North Dakota	1,129	91	1,472	563	1,941	505
Northern Mariana Islands	225	0	105	0	890	0
Ohio	47,868	0	62,901	0	59,541	0
Oklahoma	3,780	119	10,391	1,991	13,111	2,468
Oregon	8,335	0	7,855	2	7,789	29
Pennsylvania	28,737	0	46,344	0	50,239	0
Puerto Rico	1,210	0	1,356	0	8,408	0
Rhode Island	1,375	0	784	0	446	0
South Carolina	1,699	0	1,497	0	1,905	0
South Dakota	1,977	122	2,329	1,899	2,166	4,338
Tennessee	7,240	0	6,001	0	6,190	0
Texas	118,092	0	85,004	16	71,253	49
Utah	1,240	2	1,188	16	752	40
Vermont	2,386	0	2,994	0	2,109	0
Virgin Islands	100	0	76	0	0	0
Virginia	4,619	0	2,945	0	685	0
Washington	28,525	355	35,428	1,858	41,640	45
West Virginia	759	0	483	0	392	0
Wisconsin	20,404	0	21,459	1	22,089	0
Wyoming	196	3	190	25	85	25
Industry Total	1,689,867	2,021	1,670,258	22,963	1,626,415	27,476

Note: Subscribers reported for 2000, 2001, and 2002 include true-ups through March 31, 2003. Starting October 2000, low-income subscribers are listed as either tribal or non-tribal due to implementation of the *Tribal Order*.

Source: Universal Service Administrative Company (USAC).

**Table 20.6
Lifeline Assistance Annual Payments
By State or Jurisdiction**

State or Jurisdiction	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 ¹	Cumulative Total
Alabama	\$0	\$0	\$0	\$0	\$56,744	\$372,371	\$602,521	\$1,449,303	\$1,590,349	\$1,910,638	\$2,273,365	\$2,674,835	\$10,930,126
Alaska	0	0	0	24,330	55,101	69,116	73,941	205,701	383,225	591,303	1,305,687	2,326,446	5,034,850
American Samoa	0	0	0	0	0	0	0	8,167	26,893	41,388	53,094	56,268	185,810
Arizona	127,419	144,290	188,216	307,699	346,595	383,752	396,391	1,606,287	1,720,671	2,044,134	3,965,412	11,007,545	22,238,411
Arkansas	301,087	316,837	310,979	295,293	301,808	362,497	374,881	585,933	594,392	596,488	684,631	920,607	5,645,433
California	36,072,671	40,381,514	47,512,283	52,461,134	57,460,181	62,231,440	63,011,988	244,372,788	249,506,436	264,490,813	285,412,991	292,586,720	1,695,500,959
Colorado	751,056	843,519	802,077	775,750	727,801	829,354	942,972	1,861,235	2,077,456	2,408,134	2,604,649	3,238,212	17,862,215
Connecticut	0	0	57,033	1,493,569	2,586,972	2,660,608	2,590,702	3,660,711	4,344,924	4,896,000	5,096,437	5,371,139	32,758,095
Delaware	0	0	0	0	0	0	0	23,198	38,185	51,796	118,361	224,214	455,754
District of Columbia	90,500	128,348	312,684	429,396	313,998	293,322	318,368	769,414	876,337	952,218	1,128,090	1,212,128	6,824,803
Florida	0	0	0	1,290,282	4,396,137	5,191,213	5,448,368	10,368,040	10,962,971	11,943,361	13,699,902	15,187,952	78,488,226
Georgia	794,088	2,247,925	2,764,461	3,003,777	3,315,787	3,383,638	3,164,320	6,187,332	6,313,688	6,461,236	6,674,786	7,236,234	51,547,272
Guam	0	0	0	0	0	0	0	18,061	68,177	170,743	208,867	319,515	785,363
Hawaii	186,490	182,555	190,166	196,554	202,107	273,471	271,524	551,150	805,625	1,074,352	1,170,757	1,227,080	6,331,831
Idaho	358,515	355,127	349,344	328,583	321,830	320,845	311,156	576,367	1,306,602	1,823,477	2,432,499	3,022,886	11,507,231
Illinois	414,457	0	0	0	0	0	0	1,856,606	3,285,371	4,417,414	5,871,082	7,731,235	23,576,165
Indiana	0	0	0	0	0	0	0	795,195	1,231,284	1,531,702	2,610,208	3,589,971	9,758,360
Iowa	0	0	0	0	0	0	0	161,566	409,513	751,594	1,048,413	1,541,379	3,912,465
Kansas	0	0	0	0	0	0	0	340,226	474,877	781,349	1,267,687	1,436,582	4,300,759
Kentucky	0	0	0	0	0	0	0	315,271	2,128,575	3,488,178	4,283,356	5,293,206	15,508,586
Louisiana	0	0	0	0	0	0	0	379,066	681,067	1,071,618	1,444,781	1,836,050	5,412,582
Maine	2,165,485	2,605,855	2,902,206	2,959,351	2,652,482	2,737,366	2,669,234	5,338,338	5,711,223	6,799,162	7,920,719	9,167,338	53,628,759
Maryland	216,947	213,303	221,574	218,052	211,819	180,079	166,473	317,814	326,288	352,177	390,945	420,239	3,235,710
Massachusetts	5,126,895	5,996,798	6,598,801	7,064,939	7,146,757	6,952,050	6,564,336	13,628,125	14,207,842	14,821,387	15,911,796	17,589,338	121,609,064
Michigan	2,163,526	2,742,396	3,081,708	3,351,293	3,288,234	3,203,533	3,104,079	9,761,204	10,059,023	11,399,598	11,863,866	11,358,926	75,377,386
Minnesota	2,416,108	2,258,780	2,295,299	2,332,178	2,170,211	2,080,597	1,998,168	3,534,194	3,471,610	3,700,533	3,805,097	3,929,279	33,992,054
Mississippi	16,962	29,506	109,841	339,633	399,633	401,106	349,468	887,098	1,136,422	1,489,290	1,915,268	2,394,838	9,469,065
Missouri	648,102	711,138	699,011	653,539	590,212	486,547	435,466	551,102	754,501	1,466,051	2,614,821	2,978,960	12,589,450
Montana	228,885	234,046	266,870	281,441	290,312	328,627	319,745	677,995	824,313	932,470	1,310,229	1,675,652	7,370,585
Nebraska	0	0	0	0	0	0	0	619,118	820,980	1,210,149	1,407,455	1,604,781	5,662,483
Nevada	134,038	147,595	172,658	194,440	206,654	196,662	215,016	214,714	754,020	1,319,500	2,148,748	3,347,026	9,051,071
New Hampshire	0	0	0	0	0	0	0	162,362	331,956	443,561	532,810	630,325	2,101,014
New Jersey	0	0	0	0	0	0	0	343,979	404,857	2,026,134	3,695,864	4,640,053	11,110,887
New Mexico	615,450	744,810	1,167,110	1,357,828	1,216,787	1,264,979	1,273,169	2,620,225	2,875,410	3,169,823	3,855,779	5,208,631	25,370,001
New York	15,649,754	18,295,637	20,970,135	23,844,744	27,188,016	30,924,772	29,327,216	54,776,809	51,473,090	48,395,880	46,041,065	51,678,632	418,565,750
North Carolina	647,593	875,130	962,905	1,003,092	922,046	972,403	948,969	2,443,601	3,755,587	5,636,402	8,129,822	10,786,030	37,083,580
North Dakota	438,302	447,187	421,896	412,255	378,733	333,434	309,496	876,274	960,538	1,013,354	1,371,664	1,953,549	8,916,682
Northern Mariana Islands	0	0	0	0	0	0	0	10,659	30,391	29,576	28,055	36,249	134,930
Ohio	650,084	1,304,827	1,963,353	2,293,070	2,409,791	2,366,359	2,535,383	5,390,963	8,113,627	13,117,956	19,616,008	25,147,599	84,909,020
Oklahoma	0	0	0	0	0	10	900	106,526	173,816	648,135	648,135	12,475,580	20,051,243
Oregon	944,221	1,044,746	1,175,398	1,262,606	1,499,920	1,479,004	1,310,954	2,381,568	2,484,518	2,750,644	3,088,809	3,991,665	23,414,053
Pennsylvania	0	0	0	0	0	87,639	298,771	1,742,564	3,043,969	3,977,672	5,750,970	9,362,870	24,264,455
Puerto Rico	0	0	0	0	0	0	0	587,156	1,064,389	1,116,360	1,134,103	6,462,595	10,364,603
Rhode Island	960,213	1,111,414	1,487,776	1,693,628	1,713,982	1,772,985	1,843,008	3,776,998	3,898,361	4,192,501	4,493,365	4,925,721	31,869,952
South Carolina	0	0	0	264,326	647,296	772,226	1,825,532	1,735,670	1,776,712	1,942,477	2,383,039	11,347,278	
South Dakota	207,281	211,499	214,402	160,110	156,115	152,834	155,737	674,584	742,425	882,125	1,637,811	3,454,712	8,649,635
Tennessee	0	506,187	844,079	881,488	837,524	841,342	790,409	1,874,811	2,527,805	3,384,240	4,126,997	5,151,868	21,766,750
Texas	1,736,759	3,576,193	4,181,609	5,335,092	6,723,118	7,776,103	8,124,667	17,624,701	20,341,821	23,137,380	29,965,632	44,142,200	172,665,275
Utah	874,025	1,161,879	1,203,870	1,208,738	1,179,200	1,057,483	950,263	1,699,274	1,665,098	1,771,260	1,910,392	2,109,825	16,791,307
Vermont	858,766	924,333	979,697	1,041,838	1,094,178	1,039,649	1,064,932	2,214,987	2,403,381	2,646,801	2,902,466	3,193,140	20,364,168
Virgin Islands	0	0	5,753	29,075	22,459	14,293	19,779	49,229	40,225	44,910	0	0	225,723
Virginia	704,087	782,585	907,400	920,012	912,437	911,374	973,851	1,789,384	1,860,517	1,910,157	1,994,367	2,044,008	15,710,179
Washington	2,199,086	2,524,658	2,997,455	2,966,094	2,813,846	2,743,597	2,686,537	4,182,773	4,962,458	6,128,497	7,896,435	9,294,195	51,395,631
West Virginia	181,082	175,309	188,356	206,594	190,638	176,422	216,891	367,974	383,448	393,823	419,360	461,142	3,361,075
Wisconsin	217,958	482,544	521,821	617,261	676,880	653,204	610,732	2,768,442	3,882,741	4,704,920	5,516,112	6,189,383	26,841,998
Wyoming	5,833	57,652	54,640	49,077	36,101	33,007	36,306	93,464	113,024	122,227	185,199	270,395	1,056,925
Industry Total	\$79,103,725	\$93,766,122	\$109,082,866	\$123,283,835	\$137,277,472	\$148,186,383	\$147,579,351	\$422,006,158	\$446,161,998	\$488,574,523	\$555,360,617	\$638,499,987	\$3,388,883,037

Note: Payments for 1991 - 2001 are final and are not subject to further adjustment.

¹ Dollars reported are for companies requesting reimbursement. Approximately 99% have reported at this time. Data include true-ups submitted through March 2003. Lifeline dollars, starting in 1998, include toll-limitation services (TLS) and presubscribed interexchange carrier charges (PICCs). PICC charges are valid only through July 2000.

Source: Universal Service Administrative Company (USAC).

**Table 20.7
LinkUp Assistance Annual Payments
By State or Jurisdiction**

State or Jurisdiction	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 ¹	Cumulative Total
	Alabama	\$47,246	\$30,322	\$16,881	\$7,021	\$5,467	\$6,661	\$9,738	\$37,868	\$28,882	\$28,604	\$27,515	\$22,180
Alaska	0	0	0	8,541	16,530	14,673	10,485	18,647	24,494	16,311	48,027	82,519	240,227
American Samoa	NA	NA	NA	NA	NA	NA	NA	3,660	2,670	1,590	1,956	1,230	11,106
Arizona	4,792	2,054	6,000	8,533	23,340	22,359	23,234	12,473	112,999	106,010	307,747	374,097	1,003,638
Arkansas	128,727	152,380	304,253	337,111	164,617	232,383	221,128	142,354	101,090	61,903	52,138	111,930	2,010,014
California	0	0	0	0	0	0	0	28,628,622	24,003,283	20,961,600	20,047,387	18,516,610	112,157,502
Colorado	47,146	43,867	34,417	15,065	10,498	38,773	48,230	44,545	22,506	19,630	20,066	11,647	356,390
Connecticut	125,749	169,970	205,974	386,459	414,224	313,522	256,225	201,089	153,651	99,945	94,487	118,412	2,539,707
Delaware	0	0	0	0	126	7,308	8,268	2,376	1,116	864	8,100	17,802	45,960
District of Columbia	7,848	17,611	27,500	22,288	27,760	27,102	27,399	400	430	46	0	0	158,384
Florida	82,224	113,225	69,296	73,744	88,707	100,275	87,753	196,450	188,233	202,121	223,911	293,655	1,719,594
Georgia	277,968	604,321	461,379	449,418	444,097	330,076	146,239	204,709	167,716	85,560	70,534	93,121	3,335,138
Guam	0	0	0	0	0	0	0	3,521	12,304	13,775	19,129	24,362	73,091
Hawaii	14,969	19,168	24,428	33,051	46,507	37,856	34,115	145,251	229,187	237,604	200,713	133,663	1,156,512
Idaho	5,860	6,407	7,418	10,578	8,985	9,861	18,754	11,539	16,029	31,135	22,059	15,377	164,002
Illinois	320,216	0	555,206	617,419	477,288	282,633	232,685	318,391	332,878	330,390	753,951	945,968	5,167,025
Indiana	63,398	119,317	112,484	117,045	71,478	40,189	58,703	103,940	127,536	140,547	313,960	511,391	1,779,988
Iowa	99,478	92,333	81,214	74,162	56,111	40,437	18,771	29,421	21,116	18,187	23,038	42,289	596,557
Kansas	10,914	11,530	10,673	9,573	8,141	8,429	35,655	26,737	28,662	58,505	72,008	66,607	347,434
Kentucky	191,793	245,518	233,258	262,990	263,666	274,776	175,728	143,852	186,399	155,683	143,622	162,685	2,439,970
Louisiana	551,215	386,163	210,409	147,015	76,603	38,121	15,288	74,074	26,208	17,061	36,203	1,599,236	
Maine	271,175	120,532	321,595	430,941	327,363	461,108	522,810	477,470	574,103	581,375	605,346	595,687	5,289,505
Maryland	85,142	81,999	71,223	52,782	63,008	50,178	46,278	30,336	21,760	15,289	10,047	1,530	529,572
Massachusetts	76,355	86,415	322,410	366,427	344,862	217,417	131,948	108,720	186,067	123,288	38,395	21,157	2,023,461
Michigan	761,801	840,265	786,106	720,903	472,243	224,317	477,688	384,073	405,941	399,999	502,411	591,867	6,567,614
Minnesota	12,644	12,660	38,742	35,475	8,435	7,622	14,189	15,793	6,078	4,489	3,585	5,934	165,646
Mississippi	26,277	17,743	45,472	81,156	94,989	67,873	31,033	38,302	24,647	20,981	19,224	17,960	485,657
Missouri	14,615	17,047	27,775	23,702	12,190	10,308	9,880	83,766	18,640	116,109	149,128	153,457	636,617
Montana	25,154	25,074	26,475	19,726	13,413	24,502	24,304	22,356	20,819	29,283	35,051	30,222	296,379
Nebraska	11,267	15,382	11,950	9,001	6,892	5,253	4,391	9,542	17,312	28,909	40,330	31,033	191,262
Nevada	9,338	10,999	15,107	11,838	11,691	13,445	8,605	1,902	55,557	60,681	64,019	102,327	365,509
New Hampshire	21,420	36,328	44,199	42,146	32,147	30,530	31,583	26,155	26,750	16,111	14,716	8,554	330,639
New Jersey	12,054	14,502	11,745	11,814	8,106	4,995	3,844	33,071	10,043	22,951	21,999	42,029	197,153
New Mexico	107,467	152,371	304,961	262,693	131,859	137,238	128,193	116,668	114,304	44,331	38,356	52,528	1,590,969
New York	5,962,604	6,611,528	7,243,113	8,120,361	8,972,155	9,586,748	5,604,194	5,480,654	1,470,599	1,130,140	1,185,878	1,485,613	62,853,587
North Carolina	33,805	32,761	24,042	19,718	13,958	9,510	8,720	38,545	51,344	55,554	56,619	69,270	413,846
North Dakota	6,182	5,713	6,682	5,534	5,636	3,491	17,922	23,026	16,357	19,062	33,642	38,910	182,157
Northern Mariana Islands	0	0	0	0	0	0	0	5,887	11,435	8,879	7,749	6,324	40,274
Ohio	311,997	650,806	775,582	690,334	515,674	394,796	374,183	322,012	422,074	806,836	1,090,935	1,033,495	7,388,724
Oklahoma	35,077	27,986	28,251	23,936	20,142	22,082	33,908	47,878	30,464	81,210	221,612	292,933	865,479
Oregon	22,801	31,834	46,035	54,485	57,728	53,338	51,816	46,222	39,955	76,668	69,616	78,190	628,688
Pennsylvania	1,743,115	1,976,702	1,904,903	2,022,887	1,969,372	1,850,064	1,735,564	1,257,631	1,043,649	531,678	916,298	1,057,463	18,009,326
Puerto Rico	72,561	65,986	54,826	57,950	69,244	76,381	83,138	68,116	31,208	22,598	27,120	156,135	785,263
Rhode Island	13,634	21,059	28,427	38,416	45,309	35,531	25,226	29,878	26,478	23,267	13,266	7,547	308,038
South Carolina	34,894	36,759	40,434	38,405	30,035	21,851	19,639	42,591	39,047	32,120	28,566	36,418	400,759
South Dakota	7,755	7,685	6,349	5,641	4,614	2,765	2,257	29,490	22,426	30,611	176,369	381,768	677,730
Tennessee	62,690	69,673	86,711	85,071	89,617	60,589	22,082	78,322	108,680	105,704	121,506	119,686	1,010,331
Texas	591,565	811,837	825,340	1,258,838	1,371,343	1,632,153	1,517,075	2,244,255	2,325,072	2,257,497	1,620,398	1,361,838	17,817,211
Utah	31,614	111,578	85,963	35,478	32,798	74,404	53,213	36,078	25,804	15,404	14,875	10,005	527,214
Vermont	34,041	34,358	36,314	40,478	34,039	24,863	19,126	24,174	26,545	42,256	46,478	30,045	392,717
Virgin Islands	0	0	1,012	2,584	1,001	317	1,392	2,005	1,004	1,763	718	0	11,796
Virginia	267,462	289,381	323,486	248,128	292,190	269,695	267,013	183,002	141,017	86,434	55,042	14,110	2,436,960
Washington	467,920	532,652	561,632	668,199	693,528	676,482	623,757	417,353	424,733	492,988	787,690	697,411	7,044,345
West Virginia	7,878	7,366	11,983	16,145	15,119	14,508	16,102	8,966	12,814	10,024	8,300	6,327	135,532
Wisconsin	581,758	569,079	537,514	490,668	426,278	356,626	370,939	378,836	450,289	543,690	571,356	586,231	5,863,264
Wyoming	1,865	1,934	2,180	1,449	938	342	400	338	893	3,609	4,016	2,027	19,991
Industry Total	\$13,705,470	\$15,342,180	\$17,019,329	\$18,573,322	\$18,392,061	\$18,246,756	\$13,710,810	\$42,463,332	\$33,991,297	\$30,432,674	\$31,068,065	\$30,707,779	\$283,653,075

NA - Not Available.

Note: Payments for 1991 - 2001 are final and are not subject to further adjustment.

¹ Dollars reported are for companies requesting reimbursement. Approximately 99% have reported at this time. Data include true-ups through March 2003.

Source: Universal Service Administrative Company (USAC).

Table 20.8
Low-Income Support Payments
(January 2001 - December 2001)

State or Jurisdiction	Lifeline		LinkUp		TLS	Total
	Non-Tribal	Tribal	Non-Tribal	Tribal		
Alabama	\$2,273,365	\$0	\$27,515	\$0	\$2,664	\$2,303,544
Alaska	747,178	558,509	20,341	27,686	46,905	1,400,619
American Samoa	53,094	0	1,956	0	0	55,050
Arizona	2,649,220	1,316,192	59,224	248,523	115,432	4,388,591
Arkansas	684,631	0	52,138	0	4,468	741,237
California	285,407,337	5,654	20,047,366	21	2,064,222	307,524,600
Colorado	2,603,866	783	20,048	18	34,596	2,659,311
Connecticut	5,096,437	0	94,487	0	7,473	5,198,397
Delaware	118,361	0	8,100	0	85	126,546
District of Columbia	1,128,090	0	0	0	54	1,128,144
Florida	13,699,902	0	223,911	0	29,265	13,953,078
Georgia	6,674,786	0	70,534	0	11,445	6,756,765
Guam	208,867	0	19,129	0	0	227,996
Hawaii	1,170,757	0	200,713	0	0	1,371,470
Idaho	2,423,741	8,758	21,905	154	41,118	2,495,676
Illinois	5,871,082	0	753,951	0	4,161	6,629,194
Indiana	2,610,208	0	313,934	26	1,070	2,925,238
Iowa	1,048,413	300	23,038	0	16,668	1,088,419
Kansas	1,267,687	0	72,008	0	5,349	1,345,044
Kentucky	4,283,356	0	143,622	0	26,336	4,453,314
Louisiana	1,444,781	0	17,061	0	2,924	1,464,766
Maine	7,884,536	36,183	590,060	15,286	24,415	8,550,480
Maryland	390,945	0	10,047	0	272	401,264
Massachusetts	15,911,796	0	38,395	0	134	15,950,325
Michigan	11,838,614	25,252	502,400	11	5,904	12,372,181
Minnesota	3,791,301	13,796	3,185	400	11,093	3,819,775
Mississippi	1,915,268	0	19,224	0	3,399	1,937,891
Missouri	2,614,739	82	149,108	20	33,408	2,797,357
Montana	1,123,986	186,243	16,055	18,996	32,974	1,378,254
Nebraska	1,386,276	21,179	39,182	1,148	41,308	1,489,093
Nevada	2,143,790	4,958	63,776	243	9,788	2,222,555
New Hampshire	532,810	0	14,716	0	81	547,607
New Jersey	3,695,864	0	21,999	0	501	3,718,364
New Mexico	3,692,493	163,286	30,059	8,297	90,287	3,984,422
New York	46,039,583	1,482	1,185,027	851	7,217	47,234,160
North Carolina	8,129,725	97	56,619	0	20,759	8,207,200
North Dakota	1,239,732	131,932	23,396	10,246	18,526	1,423,832
Northern Mariana Islands	28,055	0	7,749	0	0	35,804
Ohio	19,616,008	0	1,090,935	0	85,533	20,792,476
Oklahoma	3,161,620	3,319,436	196,452	25,160	49,386	6,752,054
Oregon	3,084,695	4,114	69,604	12	19,165	3,177,590
Pennsylvania	5,750,970	0	916,298	0	152	6,667,420
Puerto Rico	1,134,103	0	27,120	0	0	1,161,223
Rhode Island	4,493,365	0	13,266	0	280	4,506,911
South Carolina	1,941,960	517	28,566	0	16,397	1,987,440
South Dakota	1,095,609	542,202	29,757	146,612	31,067	1,845,247
Tennessee	4,126,996	1	121,506	0	25,668	4,274,171
Texas	29,926,720	38,912	1,620,180	218	135,144	31,721,174
Utah	1,907,707	2,685	14,740	135	32,701	1,957,968
Vermont	2,902,466	0	46,478	0	4,843	2,953,787
Virgin Islands	0	0	718	0	0	718
Virginia	1,994,367	0	55,042	0	1,869	2,051,278
Washington	7,535,027	361,408	604,319	183,371	104,793	8,788,918
West Virginia	419,360	0	8,300	0	4,829	432,489
Wisconsin	5,508,840	7,272	571,335	21	5,196	6,092,664
Wyoming	158,656	26,543	3,480	536	3,170	192,385
Industry Total	\$548,583,141	\$6,777,776	\$30,380,074	\$687,991	\$3,234,494	\$589,663,476

Note: These dollars represent submitted claims to USAC for the time period January 2001 through December 2001, including true-ups reported to date.

Source: Universal Service Administration Company (USAC).

Table 20.8
Low-Income Support Payments - Continued
(January 2002 - December 2002)

State or Jurisdiction	Lifeline		LinkUp		TLS	Total
	Non-Tribal	Tribal	Non-Tribal	Tribal		
Alabama	\$2,674,835	\$0	\$22,180	\$0	\$8,693	\$2,705,708
Alaska	1,369,748	956,698	50,379	32,140	62,575	2,471,540
American Samoa	56,268	0	1,230	0	0	57,498
Arizona	4,737,313	6,270,232	58,183	315,914	173,915	11,555,557
Arkansas	920,607	0	111,930	0	12,717	1,045,254
California	292,577,313	9,407	18,516,356	254	2,502,620	313,605,950
Colorado	3,233,439	4,773	11,576	71	32,637	3,282,496
Connecticut	5,371,139	0	118,412	0	8,961	5,498,512
Delaware	224,214	0	17,802	0	12	242,028
District of Columbia	1,212,128	0	0	0	3	1,212,131
Florida	15,187,952	0	293,655	0	39,834	15,521,441
Georgia	7,236,234	0	93,121	0	34,455	7,363,810
Guam	319,515	0	24,362	0	1,649	345,526
Hawaii	1,227,080	0	133,663	0	0	1,360,743
Idaho	3,004,174	18,712	15,143	234	28,803	3,067,066
Illinois	7,731,235	0	945,968	0	42,766	8,719,969
Indiana	3,589,971	0	511,391	0	1,275	4,102,637
Iowa	1,541,019	360	42,289	0	19,536	1,603,204
Kansas	1,436,582	0	66,607	0	2,279	1,505,468
Kentucky	5,293,206	0	162,685	0	45,079	5,500,970
Louisiana	1,836,050	0	36,203	0	3,727	1,875,980
Maine	9,126,279	41,059	593,785	1,902	16,220	9,779,245
Maryland	420,239	0	1,530	0	36	421,805
Massachusetts	17,589,217	121	21,157	0	136	17,610,631
Michigan	11,323,039	35,887	591,812	55	6,756	11,957,549
Minnesota	3,908,781	20,498	5,688	246	9,432	3,944,645
Mississippi	2,394,838	0	17,960	0	4,273	2,417,071
Missouri	2,978,723	237	153,447	10	20,283	3,152,700
Montana	1,411,110	264,542	11,110	19,112	35,412	1,741,286
Nebraska	1,578,538	26,243	30,249	784	37,028	1,672,842
Nevada	3,339,606	7,420	102,023	304	14,879	3,464,232
New Hampshire	630,325	0	8,554	0	12	638,891
New Jersey	4,640,053	0	42,029	0	230	4,682,312
New Mexico	4,736,558	472,073	20,071	32,457	90,995	5,352,154
New York	51,674,739	3,893	1,485,442	171	10,517	53,174,762
North Carolina	10,785,887	143	69,270	0	35,720	10,891,020
North Dakota	1,742,947	210,602	29,968	8,942	17,480	2,009,939
Northern Mariana Islands	36,249	0	6,324	0	0	42,573
Ohio	25,147,599	0	1,033,495	0	89,072	26,270,166
Oklahoma	6,117,772	6,357,808	261,008	31,925	75,464	12,843,977
Oregon	3,977,135	14,530	77,951	239	22,464	4,092,319
Pennsylvania	9,362,870	0	1,057,463	0	115	10,420,448
Puerto Rico	6,462,595	0	156,135	0	0	6,618,730
Rhode Island	4,925,721	0	7,547	0	48	4,933,316
South Carolina	2,382,464	575	36,418	0	25,099	2,444,556
South Dakota	1,589,183	1,865,529	27,771	353,997	38,249	3,874,729
Tennessee	5,151,868	0	119,686	0	30,448	5,302,002
Texas	43,961,432	180,768	1,360,915	923	112,002	45,616,040
Utah	2,103,133	6,692	9,236	769	25,757	2,145,587
Vermont	3,193,140	0	30,045	0	5,670	3,228,855
Virgin Islands	0	0	0	0	0	0
Virginia	2,044,008	0	14,110	0	1,320	2,059,438
Washington	9,246,416	47,779	695,984	1,427	112,773	10,104,379
West Virginia	461,142	0	6,327	0	5,499	472,968
Wisconsin	6,172,258	17,125	586,231	0	4,575	6,780,189
Wyoming	205,272	65,123	1,558	469	2,552	274,974
Industry Total	\$621,601,158	\$16,898,829	\$29,905,434	\$802,345	\$3,872,052	\$673,079,818

Note: These dollars represent submitted claims to USAC for the time period January 2002 through December 2002, including true-ups reported to date.

Source: Universal Service Administration Company (USAC).

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

Most recent release dates are shown in parentheses:

High-Speed Services for Internet Access: Status as of December 31, 2002 (June 2003).

Infrastructure of the Local Operating Companies (October 2000).

2001 International Telecommunications Data (January 2003).

Local Telephone Competition: Status as of December 31, 2002 (June 2003).

Numbering Resource Utilization in the United States (July 2003).

October 2002 Monitoring Report (October 2002).

Quality of Service of Service Report of the Local Operating Companies (January 2003).

Reference Book of Rates, Price Indices, and Expenditures for Telephone Service (July 2003)

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

Statistics of Communications Common Carriers, 2002/2001 Edition (September 2002).

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

Telecommunications Industry Revenues: 2001(March 2003).

Telecommunications Provider Locator (February 2003).

Telephone Penetration by Income by State (May 2003).

Telephone Subscribership in the United States (April 2003).

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

Trends in the International Telecommunications Industry (April 2001).

Trends in Telephone Service (May 2002).

22 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, Qualex International, 202-863-2893.

Additional information on regulated carriers, including investments, revenues, expenses, and earnings, is contained in the annual *Statistics of Communications Common Carriers*. The 2000/2001 edition can be purchased from the U.S. Government Printing Office (202-512-1800) and 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**.

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 National Exchange Carrier Association. 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 Industry Analysis and Technology Division and can also be found on the **FCC-State Link**.

Table 9.5, on carrier identification codes, and Tables 18.1 and 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 the Cellular Telecommunications & Internet Association (CTIA), 1133 21st 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 containing information on residential phone usage collected from actual consumer telecommunications bills to the Commission. TNS Telecoms has granted the Commission permission to use these databases for 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 9.9, 9.10, and 14.1 - 14.6 come 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.

Copies of NTIA's report *A Nation Online: How Americans Are Expanding Their Use of the Internet* 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 BOCs. 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 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. Annually, it publishes and sells statistical publications. USTA can be found on the Internet at www.usta.org.

The Association for Local Telecommunications Services (ALTS) (888 17th Street N.W., Suite 900, Washington, D.C. 20006, 202-969-2587) represents many of the competitive local exchange carriers. They can be found on the Internet at www.alts.org. Their annual report, *The State of Local Competition 2003*, is also available on their web site.

23 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.

Access Charges	Paul Zimmerman
Advanced Services.....	Jim Eisner or Ellen Burton
Consumer Expenditures	Paul Zimmerman
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International Statistics.....	Linda Blake or Jim Lande
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Residential Telephone Usage.....	Jim Eisner
Revenues.....	Jim Lande or Katie Rangos
Subscribership and Penetration.....	Alexander Belinfante
Technology	Jonathan Kraushaar
Universal Service - High Cost	Jim Eisner or Alex Belinfante
Universal Service – Schools and Libraries	Craig Stroup

Electronic mail addresses are

Alex Belinfante	abelinfa@fcc.gov
Linda Blake.....	lblake@fcc.gov
Ellen Burton.....	eburton@fcc.gov
Jim Eisner.....	jeisner@fcc.gov
Jonathan Kraushaar.....	jkrausha@fcc.gov
Jim Lande.....	jlande@fcc.gov
Ken Lynch.....	klynch@fcc.gov
Suzanne Mendez.....	smendez@fcc.gov
Larry Povich	lpovich@fcc.gov
Katie Rangos.....	krangos@fcc.gov
Craig Stroup.....	cstroup@fcc.gov
Paul Zimmerman.....	pzimmerm@fcc.gov

Customer Response

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