

Trends in Telephone Service

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INTRODUCTION:

The Federal Communications Commission, like most regulatory agencies, accumulates a great deal of information from the companies it regulates. Such information is essential to economic regulation, and is provided to the Commission both in the tariff process and in periodic reports. Most of this information deals with investments, revenues, expenses, and earnings. Only in recent years has the Commission begun to systematically collect information from the consumers' perspective. This paper summarizes the range of information now available on a routine basis that extends beyond the essential information needed for economic regulation.

TELEPHONE SUBSCRIBERSHIP:

Under contract with the Federal Communications Commission, the Bureau of the Census includes questions on telephones as part of its Current Population Survey. This survey, which monitors demographic trends between the decennial censuses, has several strengths: it is conducted regularly by an independent and 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.

Over seven 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. The Census data also reflect slight, but statistically significant, seasonal variations in penetration rates. This pattern, after allowing for effects of the upward trend in the data, is an increase of 0.3% from November to March, followed by a decrease of 0.2% from March to July, followed by a decrease of 0.1% from July to November. The data in Table 1 are not seasonally adjusted.

Table 1

Telephone Penetration in the U.S.

<u>Date</u>	<u>Households</u> (millions)	<u>Households</u> <u>with</u> <u>Telephones</u> (millions)	<u>Percentage</u> <u>with</u> <u>Telephones</u>	<u>Households</u> <u>without</u> <u>Telephones</u> (millions)	<u>Percentage</u> <u>without</u> <u>Telephones</u>
November 1983	85.8	78.4	91.4%	7.4	8.6%
March 1984	86.0	78.9	91.8	7.1	8.2
July 1984	86.6	79.3	91.6	7.3	8.4
November 1984	87.4	79.9	91.4	7.5	8.6
March 1985	87.4	80.2	91.8	7.2	8.2
July 1985	88.2	81.0	91.8	7.2	8.2
November 1985	88.8	81.6	91.9	7.2	8.1
March 1986	89.0	82.1	92.2	6.9	7.8
July 1986	89.5	82.5	92.2	7.0	7.8
November 1986	89.9	83.1	92.4	6.8	7.6
March 1987	90.2	83.4	92.5	6.8	7.5
July 1987	90.7	83.7	92.3	7.0	7.7
November 1987	91.3	84.3	92.3	7.0	7.7
March 1988	91.8	85.3	92.9	6.5	7.1
July 1988	92.4	85.7	92.8	6.7	7.2
November 1988	92.6	85.7	92.5	6.9	7.5

CHANGES IN THE PRICE OF 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. The average American household spends about as much on long distance service as on local service and the Consumer Expenditure Survey, which is used to provide weights for consumer price indexes, indicates that telephone service accounts for about 2% of total consumer expenditures. The following sections illustrate the range of information available from BLS programs.

1. Long Term Trends in the Overall Price of Telephone Service:

A price index for telephone services was first published in 1935. Since that time, telephone prices have tended to increase at a slower pace than most other prices. Table 2 shows long run changes in the Consumer Price Indexes 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. The price of telephone service has increased less rapidly than almost any other category when viewed over a long period of time.

Table 2
Annual Rates of Change For Various Price Indexes*

	1935 to 1988	1978 to 1988
CPI all goods and services	4.2%	6.1%
CPI all services	4.6	7.5
CPI telephone services	2.2	4.3
CPI major categories		
- food & beverages	**	5.1
- housing	**	6.6
- apparel & upkeep	3.3	3.6
- transportation	3.9	5.8
- medical care	5.1	8.4
- entertainment	**	5.3
- other goods & services	**	7.9
CPI public transportation	5.0	9.1
CPI piped gas	3.8	7.1
CPI electricity	2.4	6.2
CPI sewer & water maintenance	**	7.2

* Exponential rates calculated using "year average" index values for the first and last years of each comparison period.

** Series not established until after 1935.

2. Recent Changes in the Overall Price of Telephone Service:

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 both local and long distance services. Changes in telephone prices tend to lag behind other price changes. Overall inflation in the American economy peaked in 1979 and 1980. In contrast, the price of telephone services rose most rapidly during the years 1981 through 1984, with the rate of increase declining since then. The annual rate of change during each of the last ten years is shown in Table 3 for the Gross National Product fixed weight price index (which reflects inflation throughout the economy), the overall CPI (which measures the impact of inflation on consumers), and the CPI for telephone services.

Table 3
Annual Rate of Change in Price Indexes

	GNP Fixed Weight Price Index	CPI: All Items	CPI: Telephone Services
1978	7.2	9.0%	0.9%
1979	8.8	13.3	0.7
1980	9.8	12.5	4.6
1981	8.5	8.9	11.7
1982	5.0	3.8	7.2
1983	3.9	3.8	3.6
1984	3.7	3.9	9.2
1985	3.6	3.8	4.7
1986	2.3	1.1	2.7
1987	4.0	4.4	-1.3
1988	4.5	4.4	1.3

3. Price Indexes for Local Service

The Bureau of Labor Statistics publishes a number of price indexes related to local telephone service. The CPI index of local telephone charges is based on a broadly defined "market basket" that includes monthly service charges, message unit charges, equipment, installation, enhanced services (such as tone dialing and call waiting), taxes, subscriber line charges, and all other consumer expenditures associated with telephone services except long distance 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 and all other expenditures. The annual rates of change for these two indexes of local costs are presented in Table 4.

Table 4

Annual Rate of Change in Price Indexes
For Local Telephone Service

	CPI: All Local Charges	PPI: Monthly Service Charges For Residential Service
1978	1.4%	3.1%
1979	1.7	1.6
1980	7.0	7.1
1981	12.6	15.6
1982	10.8	9.0
1983	3.1	0.2
1984	17.2	10.4
1985	8.9	12.4
1986	7.1	8.9
1987	3.3	2.6
1988	4.5	4.5

4. Price Indexes for Long Distance Service:

CPI data is available for intrastate toll and interstate toll services since December 1977. Table 5 presents the annual changes in these series. The high inflation of the late 1970's is reflected in the long distance price increases beginning in 1980. Intrastate toll rates have stabilized since that time, and interstate rates have steadily fallen since 1983.

Table 5
Annual Rate of Change in Price Indexes
For Long Distance Service

	CPI: Interstate Toll calls	CPI: Intrastate Toll calls
1978	-0.8%	1.3%
1979	-0.7	0.1
1980	3.4	- 0.6
1981	14.6	6.2
1982	2.6	4.2
1983	1.5	7.4
1984	-4.3	3.6
1985	-3.7	0.6
1986	-9.5	0.3
1987	-12.4	-3.0
1988	-4.2	-4.2

5. Very Recent Trends and the Near Term Outlook:

Telephone prices have historically lagged behind inflation in the rest of the economy and, to a lesser extent, behind changes in interest rates. With both inflation and interest rates having declined from the levels existing during the early 1980's, future changes in telephone prices should be moderate. The CPI index for all telephone services decreased slightly in 1987 -- the first such decline since 1967 -- and increased only 1.3% in 1988. With no large rate cases pending before state public utility commissions, changes in local rates during the next year should be moderate. Given the continuing decline in long distance prices, it seems likely that there will be little change in the overall cost of telephone service for residential customers during 1989.

INFORMATION ON RATE LEVELS:

The price indexes published by the Bureau of Labor Statistics indicate percentage changes in the price of telephone services. The BLS does not publish the actual level of rates.

Local rates are regulated by state public utility commissions and vary so much from area to area that it is hard to characterize any rate as "typical". In most states, the Bell Operating Companies and larger independents charge higher rates in metropolitan areas than in rural areas -- a pricing practice that dates back to the turn of the century and is traditionally justified in the belief that the value of the service provided is higher for subscribers with larger local calling areas. California differs from most states in that rates for residential customers are averaged throughout the state. There, the basic local rate is \$8.35 for areas served by Pacific Bell and \$9.75 for areas served by General of California.

Table 6 presents average local residential rates. It is based on a survey using the same sampling areas and weights used by the BLS in constructing the Consumer Price Index. In October 1988, the national average for flat rate residential service was \$16.59 monthly, including taxes and subscriber line charges. Lower priced service alternatives are typically available, at a total monthly cost of less than \$10.00. These averages do not reflect the lower "lifeline" prices available to low income subscribers in many areas.

Table 6
Average Monthly Residential Rates *
*(in October of each year)

	1983	1984	1985	1986	1987	1988
Unlimited Local Calling	\$10.50	\$12.10	\$12.17	\$12.58	\$12.44	\$12.33
Subscriber Line Charges	.00	.00	1.01	2.04	2.66	2.67
Taxes	1.08	1.25	1.36	1.51	1.56	1.59
<u>Total</u>	<u>11.58</u>	<u>13.35</u>	<u>14.54</u>	<u>16.13</u>	<u>16.66</u>	<u>16.59</u>
Lowest Generally						
Available Monthly Rate	\$ 5.37	\$ 5.62	\$ 5.75	\$ 5.96	\$ 5.81	\$ 5.62
Subscriber Line Charges	.00	.00	1.01	2.04	2.66	2.67
Taxes	.56	.58	.70	.84	.94	.91
<u>Total</u>	<u>5.93</u>	<u>6.20</u>	<u>7.46</u>	<u>8.84</u>	<u>9.41</u>	<u>9.20</u>
Minimum Connection Charge	\$35.01	\$43.71	\$44.32	\$45.63	\$44.04	\$42.98
Taxes	1.75	2.19	2.22	2.28	2.20	2.11
<u>Total</u>	<u>36.76</u>	<u>45.90</u>	<u>46.54</u>	<u>47.91</u>	<u>46.24</u>	<u>45.09</u>

* Monthly rates and connection charges do not include lifeline rates.

In Table 7, the prices of several long distance calls are shown based on AT&T's tariffed rates during January 1984 and January 1989. During this period, AT&T's per minute charges for interstate calls have been reduced between 35 and 40% for the average residential customer.

Table 7
Changes in the Price of Directly Dialed Long Distance Calls
(AT&T Prices from Washington, D.C.)

For calls to:		Five minute calls			Ten minute calls		
		January 1984	January 1989	Percentage change	January 1984	January 1989	Percentage change
New York City*	Day	\$2.14	\$1.19	-44%	\$4.09	\$2.34	-43%
	Evening	1.28	.77	-40	2.45	1.52	-38
	Night	.85	.59	-31	1.63	1.17	-28
Atlanta & Chicago**	Day	2.34	1.34	-43	4.49	2.64	-41
	Evening	1.40	.87	-38	2.69	1.71	-36
	Night	.93	.67	-28	1.79	1.32	-26
Los Angeles***	Day	2.70	1.40	-48	5.15	2.75	-47
	Evening	1.62	.91	-44	3.09	1.78	-42
	Night	1.08	.70	-35	2.06	1.37	-33

* The prices shown for calls between New York City and Washington, D.C. apply to all calls with distances between 125 and 292 miles.

** The prices shown apply to all calls with distances between 431 and 925 miles.

*** The prices shown apply to all calls with distances between 1911 and 3000 miles.

STATE TELEPHONE RATE CASES:

The actions of state regulatory commissions provide important indicators of future rate changes. Rate cases completed by the state commissions tend to result in immediate rate changes. At the same time, the amount of rate relief requested by local telephone companies, but not yet acted upon by state commissions, provides an indicator of future rate changes.

At the time of divestiture, rate cases pending before state public utility commissions totaled nearly \$7 billion dollars. During the first half of 1984, state commissions completed action on a number of extraordinarily large rate cases. After the first half of 1984, the level of activity in state cases diminished substantially. During 1987 and 1988, the dollar amount of rate reductions and refunds ordered by state commissions exceeded the dollar amount of rate increases authorized. At the end of 1988, the amount of rate increases requested and pending before state commissions totaled only about \$200 million. Since it typically takes more than a year for a rate case to be completed, the low level of pending cases -- viewed in conjunction with the recent reductions ordered by state commissions -- should indicate a low level of state and local increases during at least the next year.

Table 8

State Telephone Rate Cases
(Millions of Dollars)

	Revenue Increases Requested During Quarter	Revenue Changes Ordered During Quarter	Requests Pending at End of Quarter
1984 First quarter	\$ 627.7	\$ 1,175.6	\$ 4,851.9
Second quarter	93.7	2,054.2	1,675.6
Third quarter	2,242.9	284.5	3,387.5
Fourth quarter	<u>1,059.4</u>	<u>361.2</u>	3,672.3
Total	4,023.7	3,875.5	
1985 First quarter	976.6	246.3	3,779.0
Second quarter	172.4	314.8	3,316.3
Third quarter	108.3	286.5	2,664.2
Fourth quarter	<u>369.9</u>	<u>307.3</u>	1,437.3
Total	1,627.2	1,154.9	
1986 First quarter	155.1	58.0	766.2
Second quarter	249.9	57.9	362.0
Third quarter	230.0	173.3	315.7
Fourth quarter	<u>8.7</u>	<u>.8</u>	322.6
Total	643.7	290.0	
1987 First quarter	7.0	-33.1	67.1
Second quarter	19.4	-112.0	47.7
Third quarter	62.0	-94.0	94.0
Fourth quarter	<u>57.9</u>	<u>-279.9</u>	124.7
Total	146.3	-519.0	
1988 First quarter	46.4	-215.3	148.5
Second quarter	155.2	-232.4	301.6
Third quarter	140.9	-387.8	377.0
Fourth quarter	<u>36.4</u>	<u>-530.9</u>	219.5
Total	378.9	-1,366.4	

EQUAL ACCESS:

The Bell Operating Companies serve about 80% of the nation's telephone lines. Under the Modification of Final Judgment that settled the AT&T antitrust case, the Bell Operating Companies are obligated to offer equal access to all long distance carriers. The process began in 1984 and, by the end of 1988, the Bell Operating Companies had converted 90% of their lines to equal access. The remaining lines are at smaller, older offices where equal access is being provided when the offices are converted to more modern equipment. Independent telephone companies, which serve 20% of the nation's lines, are also converting offices to equal access. By the end of 1988, 88% of the nation's 130 million telephone lines had been converted to equal access.

Table 9

Equal Access Conversion Schedule *
(Percentage of Lines Converted)

	Bell Operating Companies	Independent Telephone Companies	Total Industry
1984 Third quarter	1.1%	0.0	1.0
Fourth quarter	3.8	1.5	3.4
1985 First quarter	12.1	2.4	10.6
Second quarter	26.9	3.7	23.1
Third quarter	43.0	4.0	36.8
Fourth quarter	50.9	4.9	43.5
1986 First quarter	56.8	11.9	49.5
Second quarter	61.9	18.4	54.9
Third quarter	71.4	27.4	64.3
Fourth quarter	74.3	38.3	68.4
1987 First quarter	76.4	45.3	71.3
Second quarter	77.7	50.9	73.4
Third quarter	80.4	57.9	76.8
Fourth quarter	84.7	64.0	81.3
1988 First quarter	87.0	66.2	83.6
Second quarter	87.9	68.5	84.7
Third quarter	89.1	71.3	86.2
Fourth quarter**	90.9	73.9	88.1
1989 First quarter **	92.8	76.5	90.1
Second quarter**	93.5	77.5	90.9
Third quarter **	94.2	79.3	91.7
Fourth quarter**	94.9	81.6	92.7

* Data from Tariff Review Plans filed November 12, 1987 and December 30, 1988.

** Projected.

LONG DISTANCE CARRIERS:

In 1983, the Federal Communications Commission decided to "forbear" from regulating "non-dominant" long distance carriers. While AT&T remains subject to comprehensive economic regulation, most other carriers have been exempted from the burdens of regulation. As a result, the Commission collects no data from most carriers. Nevertheless, we have two different sources of information on the number of long distance competitors. The first source, Carrier Identification Codes, provides 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 three digit identification code so that traffic can be efficiently routed.

All firms seeking to purchase either "Feature Group B" or "Feature Group D" access from local telephone companies are assigned Carrier Identification Codes by the administrators of the North American Numbering Plan. While most firms acquiring Carrier Identification Codes compete in the long distance market, some firms apparently acquire such codes for other purposes. We believe that the number of firms seeking and obtaining these codes provides the best information available on the entry of new firms into the long distance market during the period prior to 1986:

Table 10

Number of Firms with Carrier Identification Codes

June 30, 1982:	13
December 31, 1982:	11
June 30, 1983:	25
December 31, 1983:	42
June 30, 1984:	65
December 31, 1984:	123
June 30, 1985:	179
December 31, 1985:	217
June 30, 1986:	276
December 31, 1986:	334
June 30, 1987:	397
December 31, 1987:	451
June 30, 1988:	489
December 31, 1988:	493

Beginning in 1986, we have received information provided by each of the seven Regional Holding Companies that were formed as a result of the AT&T divestiture. Each regional company has provided a list of carriers purchasing "switched access" from their Bell Operating Companies. Because all long distance carriers purchase access from local telephone companies, the number of such carriers can be supplied by local telephone companies without imposing reporting requirements on long distance carriers.

The number of long distance carriers is summarized in the following two tables. Table 11 provides information on the total number of long distance carriers purchasing switched access and the total number of firms purchasing equal access. A total of over 500 carriers were reported as serving in one part or another of the nation. Of these, over half were reported as purchasing equal access.

Table 11

Number of Long Distance Telephone Carriers

		Carriers that use Equal Access	All Carriers
1986	January	157	*
	February	166	*
	March	169	*
	April	175	475
	May	178	*
	June	183	*
	July	183	494
	August	193	519
	September	190	506
	October	200	516
	November	204	521
	December	210	533
1987	January	207	551
	February	209	559
	March	211	561
	April	213	*
	May	216	*
	June	213	*
	July	219	*
	August	221	560
	September	224	*
	October	227	*
	November	229	552
	December	239	540
1988	January	235	*
	February	235	*
	March	238	511
	April	242	*
	May	245	*
	June	248	519
	July	252	*
	August	254	*
	September	256	506
	October	256	*
	November	260	*
	December	266	510

* Data not available.

Table 12 shows the number of long distance carriers that purchase access in each state. Information is provided for 47 states and the District of Columbia. Three states -- Alaska, Connecticut, and Hawaii -- are not served by the Bell Operating Companies and are therefore not represented in the table.

Within any state, a carrier purchasing access may concentrate its efforts in serving only a few exchanges or a small portion of the state. Thus, the number of carriers available to a particular customer will tend to be far smaller than the number of long distance carriers that purchase access somewhere in the state. Since the larger long distance carriers serve many states, they are recorded as purchasing access in each state. Because of this, the state figures can not be added to estimate a national total of long distance carriers.

Table 12
 Carriers Purchasing Access
 From Bell Operating Companies: December 1988

State	Switched Access	Equal Access	State	Switched Access	Equal Access
Alabama	45	15	Nebraska	32	12
Arizona	49	19	Nevada	26	14
Arkansas	44	9	New Hampshire	15	6
California	125	32	New Jersey	84	26
Colorado	83	24	New Mexico	33	13
Delaware	17	4	New York	132	27
District of Columbia	83	25	North Carolina	55	14
Florida	86	26	North Dakota	22	8
Georgia	93	19	Ohio	76	23
Idaho	30	10	Oklahoma	63	16
Illinois	116	28	Oregon	36	13
Indiana	59	21	Pennsylvania	109	30
Iowa	33	11	Rhode Island	20	8
Kansas	41	18	South Carolina	36	10
Kentucky	38	17	South Dakota	23	6
Louisiana	67	21	Tennessee	64	20
Maine	14	5	Texas	164	74
Maryland	58	18	Utah	42	15
Massachusetts	57	17	Vermont	14	6
Michigan	76	20	Virginia	48	12
Minnesota	58	21	Washington	52	15
Mississippi	38	14	West Virginia	19	7
Missouri	94	26	Wisconsin	51	27
Montana	17	5	Wyoming	13	5
			Unduplicated Total	510	266

THE INTERSTATE MARKET:

Good measures of the total amount of interstate traffic begin in mid-1984. The best available measure is that of "switched access minutes" -- those minutes transmitted by long distance carriers that also use the distribution networks of local telephone companies. The measure includes access minutes associated with ordinary long distance calls (whether made via AT&T or a competitor) and the "open end" of WATS and WATS-like calls. It excludes calls made on private telecommunications systems, on leased lines, and access minutes on the "closed end" of WATS and WATS-like calls.

Table 13 shows the number of interstate access minutes handled by AT&T, by other carriers, and industry totals. The total number of minutes has grown steadily since mid-1984, stemming from a combination of overall economic growth, price reductions, and extensive advertising. AT&T's traffic has grown at a rate slower than the industry average and the remaining traffic, handled by all other carriers, has continued to grow at a rapid rate -- averaging more than 35% per year.

Table 13
Interstate Switched Access Minutes
(in Billions)

		AT&T	Other Carriers	Total Industry
1984:	Third Quarter	31.6	5.9	37.5
	Fourth Quarter	31.8	7.9	39.7
1985:	First Quarter	32.8	6.7	39.6
	Second Quarter	33.3	8.2	41.5
	Third Quarter	33.8	9.0	42.8
	Fourth Quarter	33.4	9.9	43.3
1986:	First Quarter	34.2	8.8	43.0
	Second Quarter	34.7	10.1	44.8
	Third Quarter	35.8	10.9	46.7
	Fourth Quarter	35.9	12.6	48.6
1987:	First Quarter	37.4	13.9	51.2
	Second Quarter	38.6	13.8	52.5
	Third Quarter	39.2	15.9	55.1
	Fourth Quarter	40.1	17.0	57.1
1988:	First Quarter	41.2	17.5	58.7
	Second Quarter	41.1	18.5	59.6
	Third Quarter	42.3	19.8	62.2
Annual Exponential Rate of Growth:		7.6%	35.4%	13.5%

The result of an AT&T growth rate slower than the industry average has been a declining market share for AT&T. AT&T's market share is shown in Table 14. AT&T's share of the overall market for interstate switched minutes declined from over 80% in late 1984 to about 70% during 1988. At the same time, its share of the premium market has declined from virtually 100% in 1984 (the first scattered offices began to be converted to equal access in the summer of 1984) to about 70% of the equal access market in late 1988.

Two cautionary notes are required on any calculation of market share information. First, an index of market share is not necessarily an index of market power. Second, any calculation of market share depends on how the market is defined. The data shown in Table 14 is for the interstate market. A similar index based on the total long distance market would show a lower AT&T market share (because the overall long distance market includes a large amount of intrastate toll traffic handled by local operating companies).

Table 14

AT&T Share of the Interstate Market

		Premium Minutes	All Minutes
1984:	Third Quarter	98.7%	84.2%
	Fourth Quarter	94.3	80.0
1985:	First Quarter	99.8	83.0
	Second Quarter	95.5	80.3
	Third Quarter	92.2	78.9
	Fourth Quarter	87.9	77.1
1986:	First Quarter	88.2	79.5
	Second Quarter	84.7	77.5
	Third Quarter	82.8	76.6
	Fourth Quarter	78.9	74.0
1987:	First Quarter	77.8	72.9
	Second Quarter	78.3	73.6
	Third Quarter	75.2	71.1
	Fourth Quarter	73.6	70.3
1988:	First Quarter	73.1	70.2
	Second Quarter	71.7	68.9
	Third Quarter	70.7	68.1

LIFELINE ASSISTANCE PROGRAMS:

The FCC has established two types of assistance programs for low income subscribers. Programs of the first type are designed to assist poor subscribers in affording the monthly costs of service, and are called "lifeline" plans. Other programs -- connection assistance or "Link Up" programs -- are designed to help low income subscribers defray installation charges in order to begin receiving telephone service. Participating states have wide latitude in selecting means tests and shaping the benefits of the programs. By the end of January 1989, 20 states and the District of Columbia had been certified to provide both lifeline service and connection assistance. Another 22 states had established one, but not both, of the programs. The states, and the date of FCC certification for each program, are indicated in Table 15.

Table 15

Lifeline and Connection Assistance Programs:
Date of Approval

State	Lifeline	Link Up
Alabama		10/01/87
Arizona	11/14/86	1/15/88
Arkansas	5/22/86	10/01/87
California	1/01/85	
Colorado	7/25/86	11/13/87
Connecticut		11/13/87
Distict of Columbia	3/18/86	8/19/87
Hawaii	10/27/86	
Idaho	7/24/87	
Indiana		4/25/88
Iowa		3/10/88
Kansas		1/27/88
Kentucky		12/24/87
Maine	8/11/87	8/11/87*
Maryland	5/22/86	10/01/87
Michigan	1/24/89	1/24/89
Minnesota	1/27/88	1/27/88
Mississippi		4/27/88
Missouri	10/01/87	12/28/87
Montana	8/11/87	8/11/87
Nebraska		3/17/88
Nevada	4/28/87	
New Hampshire		11/03/88
New Jersey		11/13/87
New Mexico	4/01/87	1/15/88
New York	11/02/87	8/11/87
North Carolina	5/22/86	10/19/87
North Dakota		12/24/87
Ohio	7/01/87	10/01/87
Oregon	5/22/86	5/05/88
Pennsylvania		6/02/88
Puerto Rico		11/17/88
Rhode Island	9/21/87	9/21/87
South Carolina		12/24/87
South Dakota	3/25/88	3/25/88
Tennessee		11/03/88
Texas	7/12/88	10/01/87
Utah	12/31/86	3/17/88
Vermont	10/01/86	
Virginia	12/24/87	12/24/87
Washington	7/24/87	
West Virginia	7/25/86	9/11/87
Wyoming		1/24/89

* Approved but not implemented as of 1/31/89.

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The statistical data presented above provides a brief summary of several types of information now being collected by the FCC's Industry Analysis Division. In most cases, the reports underlying this summary provide a greater level of detail and are available in the Division's Public Reference Room, Room 537 at 1919 M Street, N.W. For more information, the following individuals may be contacted at (202) 632-0745:

Telephone Penetration Levels:	Alexander Belinfante
Prices and Rates:	Jim Lande
State Rate Cases:	Linda Blake
Equal Access:	Peyton Wynns
Long Distance Companies and CIC Codes:	Katie Rangos
Access Minutes & AT&T Market Share:	Chris Frentrup
Lifeline Assistance Programs:	Mary L. Green