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Report No. DC-1142

ACTION IN DOCKET CASE

March 31, 1988

THIRD MONITORING REPORT ON TELEPHONE SERVICE RELEASED
(CC DOCKET 87-339)

The Federal-State Joint Board staff released the third in a series of quarterly reports to be issued over a five year period that are intended to assist telecommunications policymakers and the general public in monitoring the impact of two major decisions adopted by the FCC during 1987. Copies of the report were transmitted to members of the Federal-State Joint Board, the Federal Communications Commission and the Congress.

In the first of these decisions, the Commission adopted the recommendations of the Federal-State Joint Board in CC Docket 80-286 to increase subscriber line charges (SLCs), expand the federal lifeline assistance program, retarget the formula for high cost assistance, and modify the common line pooling system.

In the second decision, the Commission adopted the recommendations of the Joint Board in CC Docket 86-297 to simplify jurisdictional separations rules and conform them to the recently revised Uniform System of Accounts.

This report presents currently available data in each of the eight subject categories selected for monitoring: (1) subscribership and penetration levels; (2) lifeline assistance plans, including both the SLC waiver and Link-Up programs; (3) costs and high cost assistance; (4) network usage and growth; (5) rates and revenues; (6) bypass; (7) pooling and rate deaveraging; and (8) jurisdictional shifts in revenue requirements.

The data in this and future reports will serve as the foundation of the studies to be undertaken by the members of the Joint Board in CC Docket 80-286 90 days prior to the scheduled implementation of SLC increases in December 1988 and April 1989.

These monitoring efforts are being conducted in the context of an open docket, which allows materials, comments and studies to be submitted at any time.

Copies of the report are available from the Commission's duplicating contractor, ITS, 2100 M St., NW, Washington, DC 20037; (202) 857-3800.

- FCC -

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Monitoring Report
CC Docket No. 87-339
March 1988

Prepared by the Staff of the
Federal-State Joint Board
In CC Docket No. 80-286

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Monitoring Report
CC Docket No. 87-339
March 1988

Introduction and Summary

This is the third in a series of quarterly reports to be issued over a five-year period that is intended to help telecommunications policymakers and the general public monitor the impact of two major decisions adopted by the Federal Communications Commission (Commission) during 1987. In the first of these decisions, the Commission adopted the recommendations of the Federal-State Joint Board in CC Docket No. 80-286 to increase subscriber line charges, expand the federal lifeline assistance program, retarget the formula for high cost assistance, and modify the common line pooling system. In the second decision, the Commission adopted the recommendations of the Federal-State Joint Board in CC Docket No. 86-297 to simplify jurisdictional separations rules and conform those rules to the recently revised Uniform System of Accounts. In this report we update and supplement the data provided in the first two reports of the Joint Board staff which were released in September and December 1987.

In an Order released on August 26, 1987, the Commission acted upon the recommendations of the Joint Boards in CC Docket Nos. 80-286 and 86-297, and established a program to monitor the impact of the two decisions noted above. This report presents currently available data in each of the eight subject categories selected for monitoring, which are: (1) subscribership and penetration levels; (2) lifeline assistance plans, including both the subscriber line charge waiver and Link-Up programs; (3) costs and high cost assistance; (4) network usage and growth; (5) rates and revenues; (6) bypass; (7) pooling and rate deaveraging; and (8) jurisdictional shifts in revenue requirements.

This report consists primarily of data that have been received since the second monitoring report was released. Most of these data are intended to augment the baseline information contained in our September report. That baseline reflects as nearly as possible the situation prior to implementation of the decisions recommended by the Joint Boards and adopted by the Commission.

For several reasons, statistically significant data are not available at this time on the impact of some of the Commission decisions we are monitoring. First, several aspects of these decisions will not be implemented for some time. For example, modifications to the common line pooling system are not scheduled for implementation until early in 1989. Second, as the Joint Board and the Commission recognized in their discussion of the monitoring program, delays often occur in the collection and

distribution of large amounts of statistical data. Third, we receive some data on less than a quarterly basis. For example, cost data is reported annually. Finally, it may take some time for consumers to become aware of changes as they are implemented and to factor them into their decisions about telephone service, and for us to collect statistically useful data on those decisions.

The eight monitoring categories, and much of the text describing those monitoring categories, remains unchanged from our previous monitoring report. However, since our December monitoring report, new information in several of the areas we are monitoring has become available. For example, disconnect studies submitted recently by the eight largest local exchange carrier holding companies show no adverse impacts of the latest subscriber line charge increase. They find that most of those who have disconnected for economic reasons were heavy users of local and toll telephone services who found themselves unable to afford that level of usage. In addition, this report provides descriptions of recent actions to implement lifeline and Link-Up America programs in the states. The November 1987 telephone penetration report is now available and shows the percentage of households with telephone service is 92.3%, unchanged from the previous report. The Consumer Price Index (CPI) and Producer Price Index (PPI) are now available for all of 1987. The most recent data show that for the 12 months ending in December 1987, the nation's overall rate of inflation was 4.4% (measured by the CPI for all items). The CPI price of telephone service declined by 1.3% during the same 12-month period. The CPI for telephone services is based on a market basket of services purchased by typical consumers and thus includes both local and long distance service. More specifically, the overall CPI for telephone service is composed of three subindexes. During the most recent 12 months, the local service component increased at an annual rate of 3.3%, while the price of interstate toll calls fell 12.4% and the price of state toll calls fell 3.0%.

The data and comments in this and future reports will serve as the foundation for the review to be undertaken by members of the Joint Board and the FCC in CC Docket No. 80-286 ninety days prior to the scheduled implementation of subscriber line charge increases in December 1988 and April 1989. With this task in mind, we hope to improve upon the format and coverage of this report in the months ahead. We emphasize that our monitoring efforts are being conducted in the context of an open docket (CC Docket No. 87-339) which allows materials, comments, and studies to be submitted at any time. The comments that have been received since the last report are summarized in each section of this report, insofar as they relate to that section. We plan to continue to include in future reports a list and summary of comments that have been received in the docket in the period since the previous report.

The deadline for submission of information for each future monitoring report is the first day of the month preceding the one which the report is released. Thus, the deadline for March reports is February 1, for June reports May 1, for September reports August 1, and for December reports November 1. Despite this deadline, the staff intends to report all filings made in the docket at the earliest possible time. In this month's report we have been able to incorporate all information received prior to February 23, 1988. While materials filed after the formal cutoff date will continue to be included whenever possible, filings received after the deadline will usually appear in the next report. For ease of public reference, we ask that parties submitting materials for the docket provide a duplicate copy to the Public Reference Room of the Common Carrier Bureau's Industry Analysis Division,¹ where copies of all materials filed in the docket are available for public reference.

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1. Subscribership and Penetration Levels

The number and percentage of households that have telephone service represent the most basic measures of the extent of universal service. Continuing analysis of telephone penetration statistics allows us to examine trends in households' decisions to maintain, acquire or drop telephone service due to Commission actions and other factors such as general trends in employment levels and the strength of the economy. Attachment I presents comprehensive data on telephone penetration statistics collected by the Bureau of the Census under contract with the FCC. Along with telephone penetration statistics for the United States and each of the states from November 1983 to November 1987, data are provided on penetration based on various demographic characteristics. Attachment II presents a summary of the first group of disconnect studies that have been submitted.

Prior to the 1980s, precise measurements of telephone subscribership received little attention. The most widely used measure of telephone availability is the percentage of households with telephone service --sometimes called a measure of telephone "penetration". This statistic, however, can be subject to large measurement errors. Traditionally, telephone penetration was measured by dividing the number of residential telephone lines by the number of households. With some households adding second telephone lines and with an increasing number of second homes, measures of penetration based on the number of residential lines became subject to a large margin of error.

By 1980, the traditional penetration measure (residential lines divided by the number of households) reached 96% while the number of households reporting that they had telephones in the 1980 census was slightly less than 93%. Recognizing the need for precise periodic measurements of subscribership, the FCC requested that the Bureau of the Census include questions on telephones as part of its Current Population Survey (CPS), which monitors demographic trends between the decennial censuses. This survey is a staggered panel survey in which the people residing at particular addresses are included for four consecutive months in one year and the same four months in the following year. Use of the CPS has several advantages -- it is conducted every month by an independent and expert agency, the sample is large and the questions are consistent. Thus, changes in the results can be compared over time with a great deal of confidence.

Unfortunately, the results of the CPS cannot be directly compared with the penetration figures contained in the 1980 decennial census. This is because of differences in the sampling methodologies and because of the context in which the questions were asked.

The specific questions asked in the CPS are: "Is there a telephone in this house/apartment?" and, if the answer to the first question is "no", "Is there a telephone elsewhere on which people in this household can be

called?" Although the survey is conducted every month, not all questions are asked every month. The telephone questions are asked once every four months, in the month that a household is first included in the sample and in the month that the household reenters the sample a year later. Since the sample is staggered, the information that is reported for any given month actually reflects responses over the preceding four months. Aggregated summaries of the responses are reported to the FCC, based on the surveys conducted through March, July, and November of each year. These reports are generally released approximately two-months after the final month of each four-month survey period.

Census Bureau figures for November 1987, the most recent data available, show that no significant change has occurred in the percentage of households subscribing to telephone service for the past year. As a result of an increasing number of households, 1.2 million households were added to the nation's telephone system between November 1986 and November 1987.

Attachment I contains eleven tables and two charts presenting penetration statistics broken out for various geographic and demographic characteristics. They are updates of the tables and charts that appeared in the September 1987 monitoring report.

Table 1.1 in Attachment I summarizes the telephone penetration for the United States, combining information on the number of households with the penetration rates. It shows that, for November 1987, 92.3% of all households in the U.S. have a telephone. The level of subscribership is unchanged from the July 1987 report. The subscribership level declined 0.1% from the November 1986 report. This change is not statistically significant.

Attachment I also includes figures showing subscribership percentages by state (Table 1.2), by householder's age and race (Table 1.3), by household size (Table 1.4), by family income (Table 1.5), and for individual persons by labor force status (Table 1.6). The data for individual persons (Table 1.6 and Chart 1.2) show that 93.4% of those adults in the civilian noninstitutionalized population have a telephone in their household. This figure is unchanged from July 1987 and November 1986.

Table 1.2 shows the CPS responses for the United States and for each state for the period from November 1983 through November 1987. Because the CPS began collecting this data only in 1983, comparable values are not available prior to November 1983. For each of the surveys, the column headed "Unit" indicates the percentage of households for which the response to the question of whether they had a telephone was "yes". The column headed "Avail." indicates the percentage of households which responded "yes" to either that question or the question of whether there was a telephone elsewhere at which they could be called. The annual averages are the

average of the 3 surveys of the year in question.

Chart 1.1 depicts the nationwide penetration rates for households graphically, with the values taken from the top line of Table 1.2.

Table 1.3 shows the nationwide penetration rates for households by the age and race of the householder. It shows that the penetration rate is lowest for young and non-white households. The penetration rate for the elderly is above the average for all age groups.

Table 1.4 shows the nationwide penetration rates for households by the size of the household and the race of the householder. It shows that penetration is highest for households of 2 to 5 people.

Table 1.5 shows the nationwide penetration rates for households by family income and the race of the householder. It shows a strong positive relationship between income and penetration.

Table 1.6 shows the nationwide penetration rates for all persons at least 16 years old in the civilian noninstitutionalized population by their race and employment status. Since this table is for individuals rather than households, the total penetration rates are different from those in the previous tables. It shows that penetration is lowest among the unemployed.

Chart 1.2 depicts the nationwide penetration rates for individuals graphically, with the values taken from the totals in Table 1.6.

Tables 1.7-1.11 present critical values for determining whether changes in penetration in the earlier Tables are statistically significant. The Census Bureau data are based on a nationwide sample of about 58,000 households. Because a sample is used, the estimates are subject to sampling error. For the nationwide totals, the critical value for determining a significant difference in telephone penetration over time is 0.5% (at the 95% confidence level). For individual states, the amount of sampling variability is much greater. These critical values are shown in Table 1.7 and are relevant because changes less than or equal to the values shown are likely to be due to sampling error and thus cannot be regarded as demonstrating that a change in telephone penetration has occurred. Because there is an overlap of half of the sample from year to year, but no overlap in the sample between surveys that are four months apart, annual changes are less subject to variations in sampling error. Consequently the critical values should be multiplied by .9 when making a comparison for the same month in two consecutive years. When comparing the annual averages, the critical values should be multiplied by 0.5774, since these are based on three surveys and hence have a lower standard error. Tables 1.8, 1.9, 1.10 and 1.11 show the corresponding critical values for testing for significant differences over time for the penetration rates shown in Tables 1.3, 1.4, 1.5, and 1.6, respectively. In some cases these critical values are very

large because the sample sizes are very small for these subcategories, rendering the estimated penetration rates unreliable.

The December 1987 monitoring report presented various tables relating telephone penetration for March 1987 to various household characteristics. They are not reproduced here.

In addition to the CPS reports, the Joint Board asked that all of the seven Regional Bell Operating Companies and GTE voluntarily conduct special disconnect studies and report the results in this docket. We asked that each study involve taking a sample of telephone exchanges from one of the company's study areas and surveying those customers whose service is terminated as to the reason for the termination. We asked that the survey commence as soon as possible so that a benchmark of information would be available for the period prior to the July 1, 1987, increase in SLCs, to enable us to make a comparison of the effects before and after the increase. We requested that the study continue for at least three months after the initial increase to allow time for customers to react to it. We asked that the exchanges sampled include representation of low income areas, in which any possible effect on subscribership is most likely to occur, as well as medium and high income areas. For those subscribers disconnected during the study period, we requested that the study attempt to determine: (1) whether the termination of service was voluntary or involuntary; (2) the composition of the unpaid bill for involuntary disconnections (e.g., the dollar amounts of SLCs, nonrecurring charges, interstate and intrastate toll charges, basic local service charges, and other recurring charges) as determined from the company's billing records; (3) the type of service subscribed to (e.g., flat rate, measured, lifeline, etc.); and (4) the reason for voluntary disconnections, i.e., whether the reason was economic (such as an increase in telephone bills or a decrease in personal income) or noneconomic (such as death or relocation), as well as the composition of the bills for the preceding three months in the case of voluntary disconnections for economic reasons. We requested that the results of those studies be reported by February 15, 1988. In addition, we requested the designated LECs to update their disconnect studies and report the results by August 31, 1988, and December 31, 1988, so that they may be considered by the Joint Board during the study and review period in advance of the December 1, 1988, and April 1, 1989, SLC increases.

The first reports of these studies have been submitted and are individually summarized in Attachment II. Some overall observations can be made of common and disparate elements of these reports. It appears that most customers that are involuntarily disconnected or who disconnect for voluntary economic reasons are above-average users of telephone services and find themselves in a position where they cannot afford their level of usage. They tend to have higher than average toll usage, are more likely to have flat-rate local service, and are more likely to have purchased discretionary services such as Touch-Tone and Call Waiting than other customers. There

is no reported evidence that the increase in the subscriber line charge (SLC) has had an adverse effect on the disconnection rate. Since disconnected customers are generally heavy toll users, the SLC increase for them was generally offset by the accompanying reduction in interstate toll rates. There appears to be seasonality in the disconnect rates, but this seems to be primarily in voluntary disconnects due to moving. Involuntary disconnects do not appear to be very seasonal, although this would be more apparent if future disconnect studies would include the ratio of involuntary disconnects to current customers. In general, it appears that very few customers voluntarily disconnect for economic reasons. One difference worth noting is the report by US West of a high proportion of involuntary disconnects who moved without paying their final bill. Other companies did not report similar behavior. There is a possibility that some of those customers may have been classified as "abandoned service" by other companies. That category was included in the involuntary disconnect group by some companies and in the voluntary disconnect group by others. The characteristics of customers reported by US West who moved without paying seem to be more similar to other involuntary disconnects than to the voluntary disconnects who paid their final bill when they moved. US West's categorization of the involuntary disconnects who moved as "non-economic" appears to be inconsistent with that of other companies.

ATTACHMENT I
CHARTS AND TABLES

TABLE 1.1

Telephone Penetration in the U.S.

<u>Date</u>	<u>Households</u> (millions)	Households with <u>Telephones</u> (millions)	Percentage with <u>Telephones</u>	Households without <u>Telephones</u> (millions)	Percentage without <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

TABLE 1.2

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY NATIONAL TOTAL AND STATES

	1983		1984		JULY		NOVEMBER		1984 ANNUAL AVERAGE		1985 MARCH	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	91.4	93.7	91.8	93.6	91.6	93.8	91.4	93.6	91.6	93.7	91.8	93.7
ALABAMA	87.9	90.2	88.9	90.4	90.3	91.8	86.1	89.3	88.4	90.5	88.4	90.3
ALASKA	83.8	88.8	85.8	88.7	87.6	90.0	86.1	88.4	86.5	89.0	89.4	91.7
ARIZONA	88.8	90.7	89.6	90.6	84.2	86.8	87.0	90.7	86.9	89.4	87.0	89.4
ARKANSAS	88.2	91.4	87.1	90.1	87.8	92.6	84.8	89.2	86.6	90.6	85.7	89.8
CALIFORNIA	91.7	93.5	92.8	93.8	92.2	93.8	92.4	93.8	92.5	93.8	93.0	94.1
COLORADO	94.4	96.5	94.7	96.4	91.9	94.4	93.2	95.2	93.2	95.4	96.2	97.7
CONNECTICUT	95.5	98.4	94.5	96.2	96.0	97.6	96.0	97.2	95.5	97.0	94.9	97.2
DELAWARE	95.0	96.6	95.4	96.3	93.7	95.1	93.7	95.8	94.3	95.7	96.6	97.4
DIST OF COL	94.7	95.6	96.1	97.5	93.5	95.4	95.1	96.0	94.9	96.3	91.6	93.5
FLORIDA	85.5	89.9	89.9	92.4	89.6	91.4	86.6	90.1	88.7	91.3	88.8	90.9
GEORGIA	88.9	92.1	85.8	88.2	86.8	90.5	86.0	88.7	86.2	89.1	89.0	91.1
HAWAII	94.6	96.4	93.6	94.2	95.1	96.3	91.9	94.3	93.5	94.9	93.3	95.1
IDAHO	89.5	92.2	90.4	91.8	91.0	91.8	90.8	91.4	90.7	91.7	91.7	93.3
ILLINDIS	95.0	95.9	95.7	96.8	93.6	95.0	93.2	95.5	94.2	95.8	94.4	95.6
INDIANA	90.3	93.5	91.8	93.2	91.2	93.3	91.7	94.4	91.6	93.6	91.7	94.8
IOWA	95.4	97.2	95.7	96.2	97.5	98.7	95.4	97.2	96.2	97.4	96.0	96.9
KANSAS	94.9	96.7	94.4	95.4	95.1	96.4	93.5	95.6	94.3	95.8	94.8	97.1
KENTUCKY	86.9	90.9	87.1	90.6	88.3	91.2	89.1	91.1	88.1	91.0	89.0	92.1
LOUISIANA	88.9	93.3	89.8	92.2	88.7	93.1	90.5	92.7	89.7	92.7	90.5	93.5
MAINE	90.7	93.1	94.4	95.7	92.1	94.9	93.9	95.2	93.4	95.3	94.2	95.3
MARYLAND	96.3	96.7	96.1	96.9	94.9	95.7	96.1	96.8	95.7	96.5	95.2	96.2
MASSACHUSETTS	94.3	95.9	95.7	96.5	96.5	97.4	95.4	96.9	95.9	96.9	95.6	96.7
MICHIGAN	93.8	94.9	93.1	95.0	93.0	94.5	92.4	94.0	92.8	94.5	92.6	94.1
MINNESOTA	96.4	97.5	95.8	97.4	96.6	97.2	95.0	96.6	95.8	97.1	97.1	98.2
MISSISSIPPI	82.4	89.1	81.8	86.1	83.1	89.8	82.2	86.6	82.4	87.5	81.6	87.0
MISSOURI	92.1	94.1	92.1	94.0	91.3	93.2	91.0	93.9	91.5	93.7	92.6	94.2
MONTANA	92.8	94.5	90.2	93.9	91.6	94.5	91.1	93.8	91.0	94.0	92.2	95.2
NEBRASKA	94.0	95.3	96.4	97.2	94.8	95.8	95.9	97.3	95.7	96.8	96.4	96.9
NEVADA	89.4	91.9	93.0	95.6	88.2	89.8	89.8	93.0	90.4	92.8	91.3	93.6
NEW HAMPSHIRE	95.0	96.9	94.7	96.3	95.9	96.4	92.4	94.7	94.3	95.8	93.4	94.4
NEW JERSEY	94.1	95.1	93.5	95.0	96.0	96.9	94.8	96.3	94.8	96.1	95.1	96.5
NEW MEXICO	85.3	90.9	81.0	85.8	81.2	86.3	84.0	88.8	82.0	87.0	85.0	88.0
NEW YORK	90.8	92.2	91.2	92.5	92.3	94.5	91.8	93.6	91.8	93.6	92.0	93.1
N. CAROLINA	89.3	92.9	88.5	92.2	87.9	91.4	88.5	92.2	88.3	91.9	89.8	92.2
N. DAKOTA	95.1	97.3	94.1	96.3	95.2	97.7	94.6	96.3	94.6	96.8	95.0	96.1
OHIO	92.2	93.9	93.2	94.9	93.4	95.1	90.8	93.3	92.4	94.4	91.7	94.7
OKLAHOMA	91.5	93.7	91.1	92.5	89.4	92.3	90.3	92.6	90.3	92.5	90.3	92.7
OREGON	91.2	93.5	91.1	92.6	92.2	93.5	88.5	90.9	90.6	92.3	89.2	91.0
PENNSYLVANIA	95.1	97.1	94.4	96.0	95.1	96.4	95.1	97.2	94.9	96.5	94.2	95.5
RHODE ISLAND	93.3	94.6	94.2	95.1	92.7	93.9	93.9	95.0	93.6	94.6	93.4	94.4
S. CAROLINA	81.8	84.9	84.5	87.9	83.6	88.1	82.9	87.1	83.7	87.7	87.2	90.6
S. DAKOTA	92.7	95.0	92.8	94.3	92.8	95.2	94.0	95.2	93.2	94.9	92.4	94.5
TENNESSEE	87.6	92.6	87.0	90.3	88.3	92.0	90.1	93.8	88.5	92.0	87.7	90.0
TEXAS	89.0	92.6	88.2	91.7	87.6	91.0	89.4	92.3	88.4	91.6	87.8	91.5
UTAH	90.3	92.2	92.2	94.1	93.2	94.6	92.2	93.9	92.5	94.2	95.3	95.7
VERMONT	92.7	94.3	91.2	93.4	93.1	94.6	92.5	94.0	92.3	94.0	90.6	91.8
VIRGINIA	93.1	94.7	93.2	95.1	93.0	95.6	92.9	94.6	93.1	95.1	92.8	94.5
WASHINGTON	92.5	93.7	92.7	94.3	93.6	95.2	92.7	93.6	93.0	94.4	92.7	94.4
W. VIRGINIA	88.1	91.1	87.2	93.5	86.5	90.0	89.4	92.1	87.7	91.8	88.1	91.4
WISCONSIN	94.8	96.1	95.9	96.3	93.5	96.0	96.3	97.4	95.2	96.6	93.8	95.7
WYOMING	89.7	93.3	89.2	92.3	88.4	91.2	92.1	95.0	89.9	92.8	91.7	94.2

TABLE 1.2 (cont.)

	JULY		NOVEMBER		1985 ANNUAL AVERAGE		1986 MARCH		JULY		NOVEMBER	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	91.8	93.9	91.9	94.0	91.8	93.9	92.2	93.9	92.2	94.0	92.4	94.4
ALABAMA	89.1	90.9	89.9	91.8	89.1	91.0	89.1	90.6	89.5	91.3	87.5	89.4
ALASKA	86.4	88.0	85.7	88.7	87.1	89.5	88.4	91.0	83.5	86.1	87.3	89.6
ARIZONA	88.0	89.8	86.9	89.8	87.3	89.6	90.8	91.8	89.8	91.4	87.6	89.4
ARKANSAS	86.6	90.8	85.5	89.2	85.9	89.9	85.8	89.4	85.1	89.8	88.3	92.1
CALIFORNIA	92.7	94.1	93.0	94.1	92.9	94.1	93.3	94.1	92.3	93.2	93.4	94.8
COLORADO	93.7	95.9	93.1	95.0	94.3	96.2	95.0	97.1	93.2	94.8	94.2	96.0
CONNECTICUT	96.5	97.6	97.1	98.0	96.2	97.6	97.3	97.7	96.8	98.3	97.0	97.8
DELAWARE	94.4	96.1	93.4	95.2	94.8	96.2	95.2	97.0	93.5	95.4	95.3	96.5
DIST OF COL	93.6	94.9	95.6	97.4	93.6	95.2	91.9	93.3	93.6	94.8	91.1	93.9
FLORIDA	89.5	91.6	90.3	92.7	89.6	91.7	89.1	91.3	89.9	92.4	91.1	93.8
GEORGIA	88.4	90.2	85.4	88.0	87.6	89.7	88.2	91.4	89.1	91.4	88.0	90.2
HAWAII	92.7	95.8	93.1	94.2	93.0	95.0	94.3	96.0	92.8	94.0	89.6	93.2
IDAHO	91.1	92.7	92.6	93.5	91.8	93.1	92.1	93.6	89.8	91.8	92.7	93.7
ILLINOIS	93.4	95.3	93.3	95.2	93.7	95.3	93.4	94.7	94.4	95.5	93.2	95.5
INDIANA	92.8	95.0	92.4	94.3	92.3	94.7	92.9	94.7	91.4	93.8	92.4	94.5
IOWA	94.6	96.4	94.7	95.9	95.1	96.4	95.5	96.6	96.0	96.9	95.6	96.1
KANSAS	93.9	95.9	94.4	96.2	94.4	96.4	93.9	95.4	94.5	96.0	95.4	96.9
KENTUCKY	86.8	90.3	86.4	90.8	87.4	91.1	87.3	90.3	85.3	90.0	86.1	91.6
LOUISIANA	90.3	94.0	90.2	93.4	90.3	93.6	90.5	93.0	89.7	93.2	85.9	89.6
MAINE	93.8	95.2	94.2	96.2	94.0	95.6	92.8	95.5	93.0	94.8	94.3	95.9
MARYLAND	96.2	98.1	95.3	95.9	95.5	96.7	95.7	96.6	95.6	96.8	95.9	96.7
MASSACHUSETTS	95.0	95.9	94.8	96.5	95.2	96.3	96.3	97.2	96.5	97.1	96.4	97.1
MICHIGAN	93.5	94.7	92.6	93.7	92.9	94.2	93.7	94.5	93.3	94.7	93.4	94.4
MINNESOTA	96.8	97.4	95.3	96.7	96.4	97.4	95.6	97.0	96.4	96.9	96.7	97.9
MISSISSIPPI	80.1	88.7	81.0	87.0	80.9	87.6	81.9	87.5	76.9	86.6	81.6	87.8
MISSOURI	92.9	95.2	92.0	95.0	92.5	94.8	93.0	93.8	94.1	95.8	93.1	95.0
MONTANA	90.0	91.4	92.0	95.1	91.4	93.9	93.0	95.1	89.1	92.6	90.6	93.5
NEBRASKA	95.0	96.3	94.6	96.7	95.3	96.6	96.0	97.2	95.0	96.1	95.8	97.1
NEVADA	90.3	92.8	94.0	95.1	91.8	93.8	91.0	92.7	92.9	93.6	93.1	94.8
NEW HAMPSHIRE	93.0	94.2	93.4	95.4	93.2	94.6	93.9	95.0	93.4	94.0	94.6	96.1
NEW JERSEY	95.4	96.5	94.1	95.5	94.9	96.2	94.2	95.6	96.0	96.9	94.4	96.0
NEW MEXICO	85.1	88.8	82.1	87.8	84.1	88.2	86.0	89.4	85.2	88.9	84.2	89.1
NEW YORK	91.2	93.1	93.0	94.5	92.1	93.6	92.9	93.9	93.7	94.7	93.0	94.3
N. CAROLINA	89.2	92.7	89.2	92.2	89.4	92.4	90.0	92.1	90.6	93.0	90.1	92.5
N. DAKOTA	95.1	96.7	95.7	97.4	95.3	96.7	95.0	95.5	95.6	97.2	97.9	98.2
OHIO	93.3	95.1	91.7	93.8	92.2	94.5	93.6	95.1	92.7	94.0	92.8	94.1
OKLAHOMA	87.0	89.6	89.2	92.6	88.8	91.7	89.7	92.7	91.1	93.0	90.5	93.4
OREGON	91.0	93.2	90.6	92.0	90.3	92.1	92.6	94.6	92.6	94.5	92.9	93.6
PENNSYLVANIA	95.8	96.8	95.8	97.5	95.3	96.6	95.9	97.4	96.3	97.1	96.7	97.7
RHODE ISLAND	95.1	96.4	93.6	94.5	94.0	95.1	95.0	95.8	97.1	97.7	95.5	96.8
S. CAROLINA	85.6	90.5	87.6	90.4	86.8	90.5	88.8	91.6	83.8	88.8	86.3	91.4
S. DAKOTA	93.1	94.2	92.2	94.9	92.6	94.5	93.4	94.2	91.5	93.3	92.9	95.1
TENNESSEE	88.3	91.8	91.9	95.9	89.3	92.6	89.7	92.9	88.5	93.3	90.8	94.8
TEXAS	87.7	91.6	88.9	91.8	88.1	91.6	87.7	90.7	89.4	92.1	89.5	92.8
UTAH	93.3	95.1	93.2	94.5	93.9	95.1	93.8	94.5	91.8	93.0	93.3	94.3
VERMONT	93.0	94.4	95.1	96.2	92.9	94.1	93.7	94.9	93.4	95.2	94.4	96.5
VIRGINIA	90.4	92.3	92.0	94.5	91.7	93.8	92.0	93.7	91.3	93.7	92.9	94.9
WASHINGTON	96.1	97.5	95.3	96.6	94.7	96.2	92.2	94.6	96.6	97.7	95.2	96.4
W. VIRGINIA	88.7	92.8	86.1	90.8	87.6	91.7	90.7	93.7	87.4	91.6	86.5	90.3
WISCONSIN	94.4	95.5	94.1	95.0	94.1	95.4	94.6	95.1	95.4	95.8	95.4	96.7
WYOMING	92.7	93.8	95.7	96.7	93.4	94.9	90.5	93.7	92.4	94.8	93.3	96.8

TABLE 1.2 (cont.)

	1986 ANNUAL AVERAGE		1987 MARCH		JULY		NOVEMBER		1987 ANNUAL AVERAGE	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	92.3	94.1	92.5	94.3	92.3	94.2	92.3	94.3	92.4	94.2
ALABAMA	88.7	90.4	87.2	89.9	86.3	88.5	88.9	90.5	87.5	89.6
ALASKA	86.4	88.9	88.3	90.5	87.4	89.6	87.8	90.3	87.8	90.2
ARIZONA	89.4	90.9	89.1	91.8	88.6	90.4	88.2	89.8	88.6	90.7
ARKANSAS	86.4	90.4	87.0	90.4	85.8	90.4	86.0	91.3	86.3	90.7
CALIFORNIA	93.0	94.0	94.3	95.4	93.2	94.5	93.8	95.0	93.8	95.0
COLORADO	94.1	96.0	93.2	96.4	93.0	95.0	92.5	95.2	92.9	95.5
CONNECTICUT	97.0	97.9	97.9	97.9	96.7	98.2	96.4	97.9	97.0	98.0
DELAWARE	94.7	96.3	96.5	97.6	96.9	97.7	96.1	96.5	96.5	97.3
DIST OF COL	92.2	94.0	91.2	93.1	92.1	94.2	94.0	95.4	92.4	94.2
FLORIDA	90.0	92.5	91.2	93.1	92.3	94.5	91.7	93.9	91.7	93.8
GEORGIA	88.4	91.0	87.5	90.7	89.2	92.0	89.5	91.2	88.7	91.3
HAWAII	92.2	94.4	94.8	96.5	94.8	96.9	93.1	96.2	94.2	96.6
IDAHO	91.5	93.1	90.9	91.7	90.4	92.1	92.0	93.8	91.1	92.5
ILLINOIS	93.6	95.2	94.0	95.6	93.3	95.2	93.7	94.7	93.7	95.2
INDIANA	92.2	94.3	91.3	92.9	91.0	93.4	91.4	93.3	91.2	93.2
IOWA	95.7	96.5	95.5	96.7	94.9	96.4	94.8	96.0	95.1	96.3
KANSAS	94.6	96.1	95.5	96.6	95.2	96.4	94.9	96.8	95.2	96.6
KENTUCKY	86.2	90.6	87.4	90.9	85.0	89.9	87.2	91.0	86.5	90.6
LOUISIANA	88.7	91.9	86.9	90.6	89.5	91.6	86.1	90.3	87.5	90.8
MAINE	93.4	95.4	94.2	95.9	93.1	94.6	93.1	95.2	93.5	95.2
MARYLAND	95.7	96.7	96.2	96.5	94.2	96.1	96.0	97.3	95.4	96.6
MASSACHUSETTS	96.4	97.1	96.7	97.5	97.0	97.4	95.5	96.1	96.4	97.0
MICHIGAN	93.4	94.5	94.1	95.0	93.3	94.4	93.7	94.9	93.7	94.8
MINNESOTA	96.2	97.2	95.8	97.6	96.0	97.5	96.1	97.3	96.0	97.4
MISSISSIPPI	80.1	87.3	82.6	87.7	79.8	82.8	81.9	88.4	81.5	86.3
MISSOURI	93.4	94.9	91.5	94.3	93.5	95.6	94.0	95.9	93.0	95.3
MONTANA	90.9	93.7	91.4	94.2	89.3	92.1	91.9	95.2	90.9	93.9
NEBRASKA	95.6	96.8	95.0	96.4	95.1	95.7	93.8	96.0	94.6	96.1
NEVADA	92.4	93.7	92.1	92.6	92.5	94.3	92.5	94.2	92.4	93.7
NEW HAMPSHIRE	94.0	95.0	94.0	96.2	94.8	96.1	93.6	96.3	94.1	96.2
NEW JERSEY	94.9	96.1	94.3	95.5	95.6	96.6	95.2	96.9	95.0	96.3
NEW MEXICO	85.1	89.1	89.1	91.7	83.6	87.9	85.5	88.2	86.0	89.3
NEW YORK	93.2	94.3	93.3	94.2	92.5	94.1	92.5	94.1	92.7	94.2
N. CAROLINA	90.2	92.5	89.7	92.1	89.5	91.9	88.5	91.2	89.2	91.7
N. DAKOTA	96.1	97.0	97.8	98.2	96.1	96.8	96.4	97.1	96.8	97.4
OHIO	93.1	94.4	93.4	94.8	93.9	95.0	92.9	94.2	93.4	94.7
OKLAHOMA	90.4	93.0	88.5	91.9	89.1	92.5	88.6	91.1	88.7	91.8
OREGON	92.7	94.3	91.1	92.3	94.5	96.6	94.3	95.5	93.3	94.8
PENNSYLVANIA	96.3	97.4	96.0	97.0	97.0	97.8	96.1	97.2	96.4	97.3
RHODE ISLAND	95.9	96.8	95.1	96.6	95.0	95.8	95.6	96.6	95.2	96.3
S. CAROLINA	86.3	90.6	89.0	91.2	85.6	89.0	88.5	91.6	87.7	90.6
S. DAKOTA	92.6	94.2	92.2	95.1	93.3	94.9	92.8	95.1	92.8	95.0
TENNESSEE	89.6	93.6	89.3	92.3	89.1	91.6	89.2	93.9	89.2	92.6
TEXAS	88.9	91.9	90.4	92.4	89.5	92.3	88.6	91.8	89.5	92.2
UTAH	93.0	93.9	93.2	94.6	90.1	94.5	93.7	94.6	92.3	94.6
VERMONT	93.8	95.6	95.8	96.8	95.4	96.7	94.8	97.4	95.3	96.9
VIRGINIA	92.1	94.1	92.9	94.8	92.7	94.5	91.9	94.3	92.5	94.6
WASHINGTON	94.6	96.3	93.2	96.5	94.5	95.9	95.1	96.8	94.3	96.4
W. VIRGINIA	88.2	91.9	88.7	91.5	88.1	91.5	86.7	91.5	87.8	91.5
WISCONSIN	95.1	95.9	96.2	97.0	95.5	96.1	97.5	98.2	96.4	97.1
WYOMING	92.1	95.1	93.3	95.2	93.5	95.3	90.1	91.8	92.3	94.1

CHART 1.1

Percent with Telephone

Telephone Penetration

Households

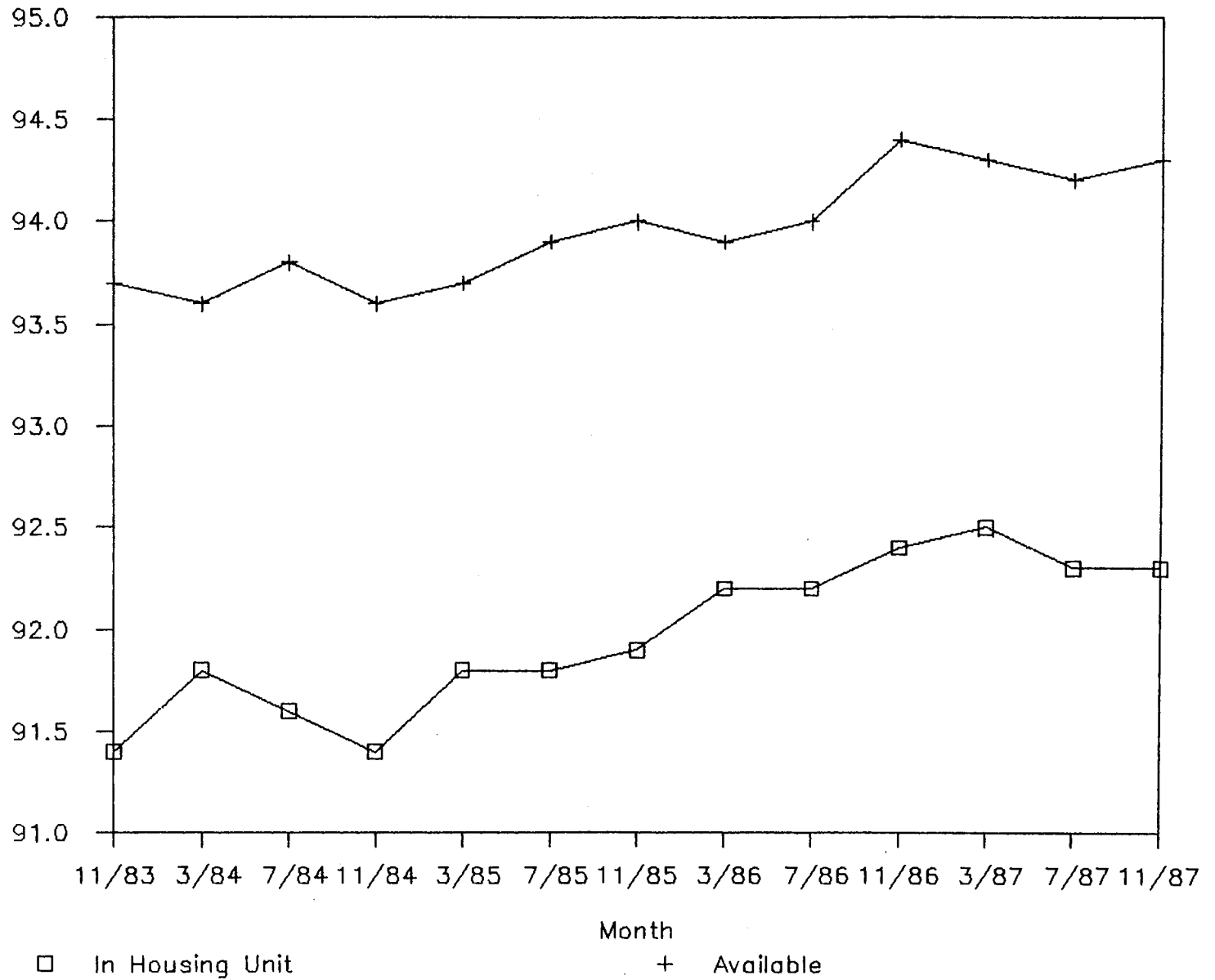


TABLE 1.3

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY HOUSEHOLDER'S AGE

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 83								
TOTAL HOUSEHOLDS	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
16-24 YRS OLD	76.6	84.1	80.2	86.2	49.9	68.2	64.9	71.9
25-54 YRS OLD	91.5	93.7	93.4	95.2	78.7	83.3	81.8	85.6
55-59 YRS OLD	95.0	96.1	96.1	97.0	86.3	88.5	89.3	89.3
60-64 YRS OLD	95.5	96.4	96.4	97.2	89.5	90.7	87.3	90.2
65-69 YRS OLD	95.5	96.2	96.5	97.0	87.2	89.0	90.7	90.7
70-99 YRS OLD	95.4	96.5	96.0	97.0	90.1	92.3	85.5	89.1
MARCH 84								
TOTAL HOUSEHOLDS	91.8	93.6	93.3	94.9	80.1	84.1	80.7	83.6
16-24 YRS OLD	77.8	84.0	80.3	85.5	57.9	71.5	59.0	66.2
25-54 YRS OLD	91.9	93.7	93.5	95.0	80.4	84.0	83.2	85.6
55-59 YRS OLD	94.9	95.9	95.7	96.6	87.6	89.9	88.7	90.5
60-64 YRS OLD	94.2	95.3	95.9	96.7	81.7	85.0	87.4	89.6
65-69 YRS OLD	96.1	96.6	97.0	97.4	87.8	89.3	85.8	87.8
70-99 YRS OLD	95.3	96.3	96.2	97.1	87.2	88.8	82.2	85.5
JULY 84								
TOTAL HOUSEHOLDS	91.6	93.8	93.2	95.0	80.5	85.3	81.1	84.6
16-24 YRS OLD	77.0	83.3	79.4	85.3	60.4	70.0	62.9	70.8
25-54 YRS OLD	91.7	93.8	93.4	95.1	79.8	84.9	83.1	85.8
55-59 YRS OLD	95.1	96.3	96.1	97.1	87.5	90.2	87.4	91.4
60-64 YRS OLD	95.0	96.2	95.8	96.9	87.7	89.5	88.1	90.5
65-69 YRS OLD	96.4	97.1	97.3	97.9	89.3	91.3	88.7	90.6
70-99 YRS OLD	95.2	96.5	95.9	96.9	89.6	93.1	84.0	88.5
NOVEMBER 84								
TOTAL HOUSEHOLDS	91.4	93.6	93.1	95.0	78.9	84.0	81.1	84.5
16-24 YRS OLD	76.1	83.4	79.0	85.4	56.3	70.8	60.8	70.8
25-54 YRS OLD	91.4	93.6	93.3	95.1	78.5	83.3	83.1	85.8
55-59 YRS OLD	94.9	96.2	96.3	97.5	84.7	87.4	85.3	88.3
60-64 YRS OLD	95.6	96.5	96.5	97.3	90.3	92.1	86.0	87.2
65-69 YRS OLD	96.0	96.7	97.1	97.6	86.7	89.1	96.2	96.2
70-99 YRS OLD	95.3	96.6	96.1	97.2	88.0	90.7	87.1	88.8
1984 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
16-24 YRS OLD	77.0	83.6	79.6	85.4	58.2	70.8	60.9	69.2
25-54 YRS OLD	91.7	93.7	93.4	95.1	79.6	84.1	83.1	85.7
55-59 YRS OLD	94.9	96.1	96.1	97.1	86.6	89.2	87.1	90.1
60-64 YRS OLD	94.9	96.0	96.0	97.0	86.6	88.8	87.1	89.1
65-69 YRS OLD	96.2	96.8	97.1	97.6	87.9	89.9	90.2	91.5
70-99 YRS OLD	95.3	96.5	96.0	97.1	88.2	90.9	84.4	87.6

TABLE 1.3 (cont.)

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY HOUSEHOLDER'S AGE

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
MARCH 85								
TOTAL HOUSEHOLDS	91.8	93.7	93.3	95.0	80.1	84.4	81.2	84.1
16-24 YRS OLD	77.3	83.1	79.6	84.8	59.8	70.0	62.4	67.1
25-54 YRS OLD	91.9	93.8	93.6	95.2	79.5	83.9	83.0	85.5
55-59 YRS OLD	94.9	95.9	95.8	96.7	87.3	89.1	86.5	89.1
60-64 YRS OLD	94.3	95.4	95.5	96.2	84.4	87.6	91.3	93.2
65-69 YRS OLD	96.1	97.0	96.8	97.5	90.7	93.6	86.5	90.4
70-99 YRS OLD	95.6	96.5	96.5	97.3	87.4	89.4	87.4	91.7
JULY 85								
TOTAL HOUSEHOLDS	91.8	93.9	93.2	95.0	81.6	85.8	80.3	83.3
16-24 YRS OLD	78.3	84.4	80.7	86.3	59.6	70.2	67.8	73.7
25-54 YRS OLD	91.8	93.9	93.3	95.1	81.4	85.8	81.0	83.6
55-59 YRS OLD	94.7	95.9	95.9	96.8	86.3	89.4	87.2	88.0
60-64 YRS OLD	95.0	95.9	95.5	96.4	91.1	91.8	85.5	88.3
65-69 YRS OLD	95.5	96.5	96.7	97.4	86.1	88.5	85.9	89.7
70-99 YRS OLD	95.6	96.8	96.2	97.3	90.8	92.4	87.6	90.5
NOVEMBER 85								
TOTAL HOUSEHOLDS	91.9	94.0	93.3	95.2	81.5	85.3	82.5	85.7
16-24 YRS OLD	78.0	83.9	80.6	86.3	60.7	68.1	64.3	71.6
25-54 YRS OLD	91.9	94.0	93.5	95.3	81.1	85.2	83.4	86.5
55-59 YRS OLD	95.0	96.2	95.7	96.8	90.0	91.4	88.4	90.6
60-64 YRS OLD	95.5	96.3	96.3	97.0	89.8	91.3	92.3	92.3
65-69 YRS OLD	96.1	97.0	97.0	97.7	88.0	90.8	95.1	95.1
70-99 YRS OLD	95.3	96.6	96.0	97.2	88.9	90.5	87.8	90.4
1985 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
16-24 YRS OLD	77.9	83.8	80.3	85.8	60.0	69.4	64.8	70.8
25-54 YRS OLD	91.9	93.9	93.5	95.2	80.7	85.0	82.5	85.2
55-59 YRS OLD	94.9	96.0	95.8	96.8	87.8	90.0	87.4	89.2
60-64 YRS OLD	94.9	95.9	95.8	96.5	88.4	90.2	89.7	91.3
65-69 YRS OLD	95.9	96.8	96.8	97.5	88.2	90.9	89.1	91.7
70-99 YRS OLD	95.5	96.6	96.2	97.3	89.1	90.7	87.6	90.9
MARCH 86								
TOTAL HOUSEHOLDS	92.2	93.9	93.6	95.0	82.0	85.8	81.5	83.9
16-24 YRS OLD	78.1	82.9	80.6	84.7	58.2	69.0	60.1	63.8
25-54 YRS OLD	92.3	93.9	93.8	95.1	82.1	85.6	83.1	85.3
55-59 YRS OLD	95.2	96.3	96.1	97.0	87.8	90.6	86.8	90.3
60-64 YRS OLD	95.5	96.2	96.2	96.9	89.0	90.5	92.4	92.4
65-69 YRS OLD	95.7	96.7	96.6	97.4	87.2	89.8	94.1	95.1
70-99 YRS OLD	95.9	97.0	96.4	97.5	91.2	93.0	93.1	96.2

TABLE 1.3 (cont.)

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY HOUSEHOLDER'S AGE

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
JULY 86								
TOTAL HOUSEHOLDS	92.2	94.0	93.7	95.2	81.5	85.7	81.1	83.6
16-24 YRS OLD	79.7	85.4	82.0	86.7	63.8	76.6	64.1	69.7
25-54 YRS OLD	92.1	93.9	93.8	95.3	80.4	84.4	83.0	85.1
55-59 YRS OLD	95.0	96.0	96.0	96.9	87.9	90.0	86.0	87.1
60-64 YRS OLD	95.3	96.2	95.9	96.6	90.9	92.9	81.8	85.1
65-69 YRS OLD	95.7	96.5	96.7	97.4	87.8	89.4	91.4	92.6
70-99 YRS OLD	95.8	96.5	96.4	97.1	90.6	91.8	85.3	86.1
NOVEMBER 86								
TOTAL HOUSEHOLDS	92.4	94.4	93.8	95.5	81.3	86.1	81.6	84.7
16-24 YRS OLD	79.4	84.7	81.9	86.3	57.5	71.1	65.9	68.8
25-54 YRS OLD	92.2	94.3	93.9	95.6	80.8	85.5	82.6	86.0
55-59 YRS OLD	95.3	96.6	96.1	97.0	88.3	93.2	90.1	93.8
60-64 YRS OLD	95.4	96.2	96.6	97.4	86.7	87.8	93.2	93.6
65-69 YRS OLD	96.0	96.9	96.7	97.5	90.2	92.5	85.7	88.0
70-99 YRS OLD	96.4	97.3	96.8	97.7	92.2	93.9	84.1	86.9
1986 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
16-24 YRS OLD	79.0	84.4	81.5	85.9	59.8	72.2	63.4	67.4
25-54 YRS OLD	92.2	94.0	93.8	95.3	81.1	85.2	82.9	85.5
55-59 YRS OLD	95.2	96.3	96.1	97.0	88.0	91.3	87.6	90.4
60-64 YRS OLD	95.4	96.2	96.2	97.0	88.9	90.4	89.1	90.3
65-69 YRS OLD	95.8	96.7	96.7	97.4	88.4	90.6	90.4	91.9
70-99 YRS OLD	96.0	97.0	96.5	97.4	91.3	92.9	87.5	89.8
MARCH 87								
TOTAL HOUSEHOLDS	92.5	94.3	93.9	95.4	82.2	85.7	84.1	86.5
16-24 YRS OLD	79.7	85.5	81.9	87.0	64.3	73.8	68.1	75.1
25-54 YRS OLD	92.6	94.2	94.1	95.5	81.7	85.3	85.1	87.0
55-59 YRS OLD	95.0	96.1	96.4	97.0	85.0	88.6	87.4	90.5
60-64 YRS OLD	95.6	96.4	96.5	97.2	87.6	89.8	92.6	92.6
65-69 YRS OLD	95.6	96.2	96.5	97.0	87.9	89.2	89.4	89.4
70-99 YRS OLD	95.8	97.0	96.3	97.5	91.4	92.3	95.3	96.1
JULY 87								
TOTAL HOUSEHOLDS	92.3	94.2	93.7	95.3	82.0	86.0	83.1	85.2
16-24 YRS OLD	78.2	83.3	81.2	85.7	57.6	67.2	66.2	69.7
25-54 YRS OLD	92.1	94.2	93.6	95.3	81.9	86.2	84.2	86.1
55-59 YRS OLD	95.4	96.2	96.5	97.2	87.1	89.8	90.8	92.4
60-64 YRS OLD	95.8	96.4	96.7	97.2	88.5	90.2	91.1	93.7
65-69 YRS OLD	96.5	97.2	97.5	98.1	88.9	90.2	87.5	87.5
70-99 YRS OLD	96.0	96.9	96.4	97.3	93.4	94.1	88.8	91.6

TABLE 1.3 (cont.)

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY HOUSEHOLDER'S AGE

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 87								
TOTAL HOUSEHOLDS	92.3	94.3	93.8	95.4	81.2	85.9	81.9	84.6
16-24 YRS OLD	78.9	84.4	81.0	85.5	63.6	76.0	61.3	67.8
25-54 YRS OLD	92.1	94.2	93.9	95.5	80.4	85.1	83.9	86.4
55-59 YRS OLD	95.3	96.4	96.3	97.3	88.9	90.3	89.1	89.3
60-64 YRS OLD	95.7	96.5	96.7	97.4	88.0	90.5	89.0	89.9
65-69 YRS OLD	95.7	96.6	97.0	97.6	84.6	88.4	89.6	89.6
70-99 YRS OLD	96.3	97.3	96.8	97.7	90.8	92.7	90.7	91.7
1987 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	92.4	94.2	93.8	95.4	81.8	85.9	83.0	85.4
16-24 YRS OLD	78.9	84.4	81.4	86.1	61.8	72.3	65.2	70.8
25-54 YRS OLD	92.3	94.2	93.9	95.4	81.4	85.5	84.4	86.5
55-59 YRS OLD	95.2	96.2	96.4	97.2	87.0	89.6	89.1	90.7
60-64 YRS OLD	95.7	96.4	96.6	97.3	88.0	90.2	90.9	92.0
65-69 YRS OLD	95.9	96.7	97.0	97.5	87.1	89.3	88.8	88.8
70-99 YRS OLD	96.0	97.0	96.5	97.5	91.9	93.0	91.6	93.1

TABLE 1.4

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY HOUSEHOLD SIZE

HOUSEHOLD SIZE	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 83								
TOTAL	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
1 PERSON	87.5	91.3	90.2	93.7	71.2	77.1	73.8	82.0
2 - 3	93.3	95.0	94.5	95.9	82.5	87.8	80.7	84.3
4 - 5	92.4	94.2	93.6	95.0	83.1	87.3	83.4	86.2
6 +	86.6	88.9	90.5	92.2	74.5	78.5	81.0	84.0
MARCH 84								
TOTAL	91.8	93.6	93.3	94.9	80.1	84.1	80.7	83.6
1 PERSON	88.6	91.7	90.7	93.3	73.9	79.9	72.2	76.4
2 - 3	93.3	94.9	94.5	95.8	82.4	86.2	80.7	84.2
4 - 5	92.7	94.0	94.1	95.2	82.9	85.7	85.4	87.2
6 +	86.4	88.3	88.6	90.2	78.8	82.0	78.8	81.5
JULY 84								
TOTAL	91.6	93.8	93.2	95.0	80.5	85.3	81.1	84.6
1 PERSON	88.6	92.1	90.2	93.4	77.3	83.2	71.9	80.5
2 - 3	93.1	94.9	94.4	95.8	82.2	87.2	82.5	85.1
4 - 5	92.3	93.9	93.8	95.1	81.9	86.1	83.9	86.3
6 +	87.6	89.3	91.0	92.3	76.1	79.0	79.5	83.1
NOVEMBER 84								
TOTAL	91.4	93.6	93.1	95.0	78.9	84.0	81.1	84.5
1 PERSON	87.8	91.5	90.1	93.5	73.5	78.9	74.6	81.1
2 - 3	93.1	95.0	94.4	96.0	82.3	87.1	82.7	86.2
4 - 5	92.3	93.9	93.9	95.1	80.6	85.3	82.6	85.1
6 +	86.8	88.8	89.8	91.0	74.0	79.3	79.1	80.8
1984 ANNUAL AVERAGE								
TOTAL	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
1 PERSON	88.3	91.8	90.3	93.4	74.9	80.7	72.9	79.4
2 - 3	93.2	94.9	94.5	95.9	82.3	86.8	82.0	85.2
4 - 5	92.5	94.0	93.9	95.1	81.8	85.7	83.9	86.2
6 +	86.9	88.8	89.8	91.1	76.3	80.1	79.2	81.8
MARCH 85								
TOTAL	91.8	93.7	93.3	95.0	80.1	84.4	81.2	84.1
1 PERSON	88.9	92.3	91.1	94.0	73.7	80.4	75.0	82.4
2 - 3	93.4	94.8	94.5	95.7	83.8	86.8	82.4	84.8
4 - 5	92.2	93.7	93.6	94.8	81.9	86.2	81.5	83.4
6 +	87.4	89.4	90.7	92.0	75.0	79.0	84.0	85.5

TABLE 1.4 (cont.)

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY HOUSEHOLD SIZE

HOUSEHOLD SIZE	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
JULY 85								
TOTAL	91.8	93.9	93.2	95.0	81.6	85.8	80.3	83.3
1 PERSON	87.0	90.7	89.3	92.6	73.9	80.2	67.8	74.3
2 - 3	93.5	95.1	94.5	95.9	85.1	88.4	83.8	85.9
4 - 5	95.1	96.0	95.7	96.4	91.9	93.5	86.5	87.6
6 +	91.6	92.2	94.4	94.5	82.2	85.0	84.5	84.5
NOVEMBER 85								
TOTAL	91.9	94.0	93.3	95.2	81.5	85.3	82.5	85.7
1 PERSON	86.8	90.6	89.3	92.8	73.3	78.8	73.0	78.8
2 - 3	93.7	95.2	94.7	95.9	85.9	88.6	84.7	87.5
4 - 5	95.2	96.3	96.3	97.0	89.1	91.3	89.0	90.1
6 +	91.9	93.8	93.5	94.2	86.6	90.9	88.3	88.3
1985 ANNUAL AVERAGE								
TOTAL	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
1 PERSON	87.6	91.2	89.9	93.1	73.6	79.8	71.9	78.5
2 - 3	93.5	95.0	94.5	95.8	84.9	87.9	83.6	86.0
4 - 5	94.2	95.3	95.2	96.1	87.6	90.4	85.6	87.0
6 +	90.3	91.8	92.8	93.6	81.3	84.9	85.6	86.1
MARCH 86								
TOTAL	92.2	93.9	93.6	95.0	82.0	85.8	81.5	83.9
1 PERSON	89.1	92.3	90.6	93.5	79.2	83.9	79.1	85.0
2 - 3	93.9	95.2	95.0	96.0	84.5	88.0	81.2	83.3
4 - 5	92.7	93.8	94.1	94.9	82.8	86.4	83.8	85.5
6 +	86.7	88.0	89.7	90.7	74.2	76.9	78.8	79.8
JULY 86								
TOTAL	92.2	94.0	93.7	95.2	81.5	85.7	81.1	83.6
1 PERSON	87.6	90.8	90.1	92.9	74.3	79.5	71.8	76.6
2 - 3	94.0	95.3	94.9	96.0	85.4	89.1	83.4	85.5
4 - 5	95.1	95.8	96.0	96.4	89.6	91.2	86.8	87.5
6 +	92.5	94.2	95.4	95.5	78.0	87.4	88.2	88.2
NOVEMBER 86								
TOTAL	92.4	94.4	93.8	95.5	81.3	86.1	81.6	84.7
1 PERSON	87.7	91.2	90.4	93.3	72.6	79.5	70.9	76.5
2 - 3	94.1	95.5	95.0	96.2	86.0	89.7	84.7	87.4
4 - 5	95.5	96.3	96.3	96.8	91.3	93.5	85.9	87.1
6 +	91.1	92.3	93.5	94.1	81.2	84.1	82.8	84.3
1986 ANNUAL AVERAGE								
TOTAL	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
1 PERSON	88.1	91.4	90.4	93.2	75.4	81.0	73.9	79.3
2 - 3	94.0	95.3	95.0	96.1	85.3	88.9	83.1	85.4
4 - 5	94.4	95.3	95.4	96.1	87.9	90.4	85.5	86.7
6 +	90.1	91.5	92.9	93.5	77.8	82.8	83.3	84.1

TABLE 1.4 (cont.)

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY HOUSEHOLD SIZE

HOUSEHOLD SIZE	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
MARCH 87								
TOTAL	92.5	94.3	93.9	95.4	82.2	85.7	84.1	86.5
1 PERSON	89.5	92.8	91.3	94.2	77.6	82.9	80.3	84.5
2 - 3	93.9	95.2	95.1	96.2	84.0	86.6	84.4	86.8
4 - 5	93.5	94.7	94.5	95.5	85.2	88.4	86.6	88.8
6 +	88.0	89.9	90.5	91.6	78.6	82.6	80.4	80.7
JULY 87								
TOTAL	92.3	94.2	93.7	95.3	82.0	86.0	83.1	85.2
1 PERSON	89.6	92.8	91.3	94.2	78.8	83.5	79.5	83.1
2 - 3	93.9	95.2	95.1	96.2	84.0	87.5	85.6	87.3
4 - 5	92.5	94.1	93.8	95.1	82.6	86.9	81.5	83.4
6 +	88.3	90.0	90.7	91.9	78.8	82.5	83.3	84.9
NOVEMBER 87								
TOTAL	92.3	94.3	93.8	95.4	81.2	85.9	81.9	84.6
1 PERSON	89.4	92.5	91.3	94.0	77.0	83.0	78.6	82.8
2 - 3	93.8	95.5	95.1	96.4	83.6	87.9	81.5	84.8
4 - 5	93.1	94.6	94.5	95.7	83.0	86.8	85.2	87.0
6 +	85.8	87.5	88.1	89.4	74.9	79.3	78.2	79.2
1987 ANNUAL AVERAGE								
TOTAL	92.4	94.2	93.8	95.4	81.8	85.9	83.0	85.4
1 PERSON	89.5	92.7	91.3	94.1	77.8	83.1	79.5	83.5
2 - 3	93.9	95.3	95.1	96.3	83.9	87.3	83.8	86.3
4 - 5	93.0	94.5	94.3	95.4	83.6	87.4	84.4	86.4
6 +	87.4	89.1	89.8	91.0	77.4	81.5	80.6	81.6

TABLE 1.5

PERCENTAGE OF FAMILIES WITH A TELEPHONE BY FAMILY INCOME

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 83								
TOTAL	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
UNDER \$5,000	71.7	78.4	75.7	81.9	62.7	70.4	58.3	64.6
\$5,000 - \$7,499	82.7	87.2	84.5	88.5	74.7	82.0	71.1	76.5
\$7,500 - \$9,999	88.2	90.9	89.6	92.2	80.5	83.9	72.6	77.9
\$10,000 - \$12,499	89.7	92.7	91.2	93.9	82.0	86.2	76.8	82.1
\$12,500 - \$14,999	92.1	94.6	93.4	95.2	82.5	90.7	89.8	91.7
\$15,000 - \$17,499	94.6	96.2	94.9	96.4	91.7	95.1	86.9	90.8
\$17,500 - \$19,999	95.7	97.4	96.1	97.7	91.4	95.0	88.4	91.5
\$20,000 - \$24,999	96.9	97.8	97.4	98.2	91.2	93.2	93.1	94.3
\$25,000 - \$29,999	98.0	98.9	98.2	99.0	96.1	97.2	98.3	99.0
\$30,000 - \$34,999	98.8	99.1	99.0	99.2	95.1	97.7	97.7	98.9
\$35,000 - \$39,999	99.0	99.5	99.1	99.5	98.4	98.4	92.1	98.2
\$40,000 - \$49,999	99.2	99.5	99.4	99.7	97.3	97.3	100.0	100.0
\$50,000 - \$74,999	99.4	99.7	99.5	99.7	98.5	100.0	99.6	100.0
\$75,000 +	99.4	99.6	99.4	99.6	100.0	100.0	100.0	100.0
MARCH 84								
TOTAL	91.8	93.6	93.3	94.9	80.1	84.1	80.7	83.6
UNDER \$5,000	71.4	77.0	74.7	79.8	62.8	69.7	53.6	60.2
\$5,000 - \$7,499	83.6	86.8	85.8	88.7	74.6	79.1	70.0	73.9
\$7,500 - \$9,999	85.8	89.3	87.7	90.8	75.9	81.1	72.2	76.3
\$10,000 - \$12,499	90.0	92.4	91.3	93.5	82.5	86.3	81.8	86.2
\$12,500 - \$14,999	92.7	94.3	93.6	95.2	84.6	86.7	88.5	89.7
\$15,000 - \$17,499	93.6	95.6	94.3	95.9	87.6	92.7	89.4	91.2
\$17,500 - \$19,999	95.3	96.3	95.4	96.3	94.8	96.4	87.1	88.0
\$20,000 - \$24,999	97.1	98.0	97.3	98.1	94.6	97.4	90.0	92.8
\$25,000 - \$29,999	98.1	98.6	98.5	98.9	93.5	94.8	96.2	97.6
\$30,000 - \$34,999	98.8	99.2	98.8	99.3	97.5	97.5	99.2	99.2
\$35,000 - \$39,999	99.4	99.6	99.5	99.7	96.3	97.2	100.0	100.0
\$40,000 - \$49,999	99.4	99.6	99.5	99.7	98.0	98.3	100.0	100.0
\$50,000 - \$74,999	99.2	99.6	99.3	99.7	97.0	97.0	100.0	100.0
\$75,000 +	98.9	99.6	99.0	99.6	94.0	100.0	95.1	100.0
JULY 84								
TOTAL	91.6	93.8	93.2	95.0	80.5	85.3	81.1	84.6
UNDER \$5,000	71.8	77.9	74.5	80.1	65.4	72.4	53.2	60.6
\$5,000 - \$7,499	82.6	86.9	84.8	88.8	74.4	80.3	71.7	76.1
\$7,500 - \$9,999	86.5	89.8	88.6	91.3	75.6	82.4	76.4	83.3
\$10,000 - \$12,499	89.7	92.7	90.7	93.3	83.4	88.9	80.7	84.1
\$12,500 - \$14,999	91.7	94.6	92.8	95.3	85.0	90.0	87.0	93.0
\$15,000 - \$17,499	94.1	95.9	94.5	96.3	89.4	91.1	87.6	88.0
\$17,500 - \$19,999	95.6	97.0	96.1	97.2	92.4	95.7	94.4	95.3
\$20,000 - \$24,999	96.8	97.8	97.2	98.0	92.9	95.7	96.7	97.3
\$25,000 - \$29,999	97.9	98.6	98.1	98.6	95.8	98.4	96.3	97.4
\$30,000 - \$34,999	98.8	99.1	98.8	99.2	97.7	97.7	100.0	100.0
\$35,000 - \$39,999	99.2	99.6	99.3	99.6	98.1	99.1	98.0	98.0
\$40,000 - \$49,999	99.3	99.5	99.5	99.7	96.1	96.1	100.0	100.0
\$50,000 - \$74,999	99.7	99.8	99.7	99.8	98.8	100.0	100.0	100.0
\$75,000 +	99.1	99.6	99.1	99.6	100.0	100.0	100.0	100.0

TABLE 1.5 (cont.)

PERCENTAGE OF FAMILIES WITH A TELEPHONE BY FAMILY INCOME

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 84								
TOTAL	91.4	93.6	93.1	95.0	78.9	84.0	81.1	84.5
UNDER \$5,000	70.3	77.5	74.4	81.3	61.4	69.4	58.5	66.1
\$5,000 - \$7,499	83.7	87.1	85.8	88.8	75.3	81.2	67.7	70.8
\$7,500 - \$9,999	87.0	89.8	88.7	90.9	80.2	84.7	76.3	79.5
\$10,000 - \$12,499	89.4	92.6	91.4	94.1	77.4	83.6	76.8	83.5
\$12,500 - \$14,999	92.0	94.2	92.5	94.5	86.6	91.6	86.5	88.9
\$15,000 - \$17,499	93.3	95.6	93.8	95.8	88.6	93.0	88.3	91.0
\$17,500 - \$19,999	94.3	95.9	95.2	96.5	88.0	91.0	91.5	95.2
\$20,000 - \$24,999	96.5	97.6	96.8	97.9	92.3	94.3	90.7	93.3
\$25,000 - \$29,999	98.4	99.1	98.6	99.2	96.0	98.3	96.7	96.7
\$30,000 - \$34,999	98.6	99.1	98.9	99.3	95.3	96.6	97.1	98.0
\$35,000 - \$39,999	99.1	99.4	99.1	99.4	98.7	98.7	96.5	97.6
\$40,000 - \$49,999	99.2	99.6	99.3	99.7	95.7	96.4	96.8	97.8
\$50,000 - \$74,999	99.5	99.9	99.6	99.9	98.3	98.3	100.0	100.0
\$75,000 +	98.7	99.5	98.8	99.5	95.6	100.0	99.0	100.0
1984 ANNUAL AVERAGE								
TOTAL	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
UNDER \$5,000	71.2	77.5	74.5	80.4	63.2	70.5	55.1	62.3
\$5,000 - \$7,499	83.3	86.9	85.5	88.7	74.8	80.2	69.8	73.6
\$7,500 - \$9,999	86.5	89.6	88.3	91.0	77.2	82.7	75.0	79.7
\$10,000 - \$12,499	89.7	92.6	91.1	93.6	81.1	86.3	79.7	84.6
\$12,500 - \$14,999	92.1	94.4	93.0	95.0	85.4	89.5	87.3	90.5
\$15,000 - \$17,499	93.7	95.7	94.2	96.0	88.5	92.2	88.4	90.0
\$17,500 - \$19,999	95.1	96.4	95.6	96.7	91.7	94.4	91.0	92.8
\$20,000 - \$24,999	96.8	97.8	97.1	98.0	93.3	95.8	92.5	94.5
\$25,000 - \$29,999	98.1	98.8	98.4	98.9	95.1	97.2	96.4	97.2
\$30,000 - \$34,999	98.7	99.1	98.8	99.3	96.8	97.2	98.8	99.1
\$35,000 - \$39,999	99.2	99.5	99.3	99.6	97.7	98.3	98.2	98.5
\$40,000 - \$49,999	99.3	99.6	99.4	99.7	96.6	96.9	98.9	99.3
\$50,000 - \$74,999	99.4	99.8	99.5	99.8	98.0	98.4	100.0	100.0
\$75,000 +	98.9	99.6	98.9	99.6	96.5	100.0	98.0	100.0
MARCH 85								
TOTAL	91.8	93.7	93.3	95.0	80.1	84.4	81.2	84.1
UNDER \$5,000	71.1	77.5	75.1	81.0	62.1	69.7	57.9	64.1
\$5,000 - \$7,499	82.5	86.1	85.0	88.1	72.0	77.6	65.9	70.8
\$7,500 - \$9,999	86.3	89.2	87.6	90.3	79.9	83.9	72.2	77.1
\$10,000 - \$12,499	89.5	92.2	90.7	93.1	81.5	86.0	85.1	86.6
\$12,500 - \$14,999	91.4	93.9	92.6	94.7	83.3	87.8	86.9	90.0
\$15,000 - \$17,499	93.7	95.8	94.6	96.3	88.1	92.0	85.8	88.5
\$17,500 - \$19,999	94.1	95.5	94.7	96.0	89.1	92.0	93.6	94.2
\$20,000 - \$24,999	96.2	97.2	96.4	97.3	93.3	95.5	88.8	91.0
\$25,000 - \$29,999	97.8	98.5	98.0	98.7	95.3	96.6	93.1	96.2
\$30,000 - \$34,999	98.6	99.0	98.8	99.0	97.3	98.3	97.8	97.8
\$35,000 - \$39,999	99.0	99.4	99.1	99.4	96.7	98.2	99.5	99.5
\$40,000 - \$49,999	98.9	99.2	99.0	99.3	97.0	98.0	97.4	97.4
\$50,000 - \$74,999	99.5	99.6	99.5	99.7	98.4	98.7	98.4	98.4
\$75,000 +	99.5	99.6	99.5	99.6	100.0	100.0	100.0	100.0

TABLE 1.5 (cont.)

PERCENTAGE OF FAMILIES WITH A TELEPHONE BY FAMILY INCOME

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
JULY 85								
TOTAL	91.8	93.9	93.2	95.0	81.6	85.8	80.3	83.3
UNDER \$5,000	72.0	77.9	74.9	80.7	64.5	71.1	60.7	65.8
\$5,000 - \$7,499	83.2	87.0	84.6	87.9	76.7	83.2	67.9	71.2
\$7,500 - \$9,999	86.9	90.8	87.7	91.1	82.3	88.1	76.0	78.1
\$10,000 - \$12,499	89.7	92.5	91.1	93.6	82.1	86.8	76.7	79.5
\$12,500 - \$14,999	91.0	93.6	92.6	94.9	80.2	84.6	79.2	83.2
\$15,000 - \$17,499	93.4	95.5	94.2	96.2	88.6	91.2	86.1	88.4
\$17,500 - \$19,999	94.5	96.1	94.8	96.5	91.9	93.0	87.1	89.8
\$20,000 - \$24,999	96.7	97.8	96.8	98.0	94.7	96.5	92.9	95.7
\$25,000 - \$29,999	97.1	98.1	97.4	98.2	94.4	97.0	91.5	95.2
\$30,000 - \$34,999	98.4	98.9	98.5	99.0	96.5	97.9	96.9	96.9
\$35,000 - \$39,999	98.7	99.2	98.8	99.4	98.4	98.4	95.8	98.6
\$40,000 - \$49,999	99.3	99.6	99.3	99.6	99.3	99.3	98.8	98.8
\$50,000 - \$74,999	99.3	99.7	99.4	99.7	97.7	98.8	100.0	100.0
\$75,000 +	99.0	99.4	99.0	99.4	100.0	100.0	95.6	95.6
NOVEMBER 85								
TOTAL	91.9	94.0	93.3	95.2	81.5	85.3	82.5	85.7
UNDER \$5,000	72.7	79.0	75.9	82.2	65.2	71.1	66.4	71.0
\$5,000 - \$7,499	82.5	86.3	84.7	88.2	73.3	78.6	65.9	71.9
\$7,500 - \$9,999	87.1	89.9	88.9	91.4	78.7	82.9	76.8	82.8
\$10,000 - \$12,499	89.6	92.0	90.5	93.1	83.3	85.2	79.3	82.4
\$12,500 - \$14,999	90.6	93.6	91.6	93.9	84.7	90.9	82.4	84.2
\$15,000 - \$17,499	93.1	95.5	93.8	96.1	88.0	92.1	85.3	89.0
\$17,500 - \$19,999	95.4	96.9	95.8	97.3	93.5	95.3	90.7	94.4
\$20,000 - \$24,999	96.0	97.4	96.1	97.5	95.1	96.8	92.3	94.4
\$25,000 - \$29,999	98.0	98.8	98.1	98.8	97.5	98.3	94.3	96.3
\$30,000 - \$34,999	98.7	99.1	98.8	99.2	98.2	98.9	97.3	97.3
\$35,000 - \$39,999	98.6	99.1	98.8	99.3	95.5	96.7	99.2	100.0
\$40,000 - \$49,999	99.0	99.3	99.1	99.4	97.0	97.3	96.3	98.3
\$50,000 - \$74,999	99.2	99.7	99.3	99.7	97.5	98.8	100.0	100.0
\$75,000 +	99.2	99.3	99.3	99.4	92.7	92.7	100.0	100.0
1985 ANNUAL AVERAGE								
TOTAL	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
UNDER \$5,000	71.9	78.1	75.3	81.3	63.9	70.6	61.6	67.0
\$5,000 - \$7,499	82.7	86.5	84.8	88.1	74.0	79.8	66.6	71.3
\$7,500 - \$9,999	86.8	90.0	88.1	90.9	80.3	85.0	75.0	79.4
\$10,000 - \$12,499	89.6	92.2	90.8	93.2	82.3	86.0	80.4	82.8
\$12,500 - \$14,999	91.0	93.7	92.2	94.5	82.7	87.8	82.8	85.8
\$15,000 - \$17,499	93.4	95.6	94.2	96.2	88.2	91.8	85.7	88.6
\$17,500 - \$19,999	94.7	96.2	95.1	96.6	91.5	93.4	90.4	92.8
\$20,000 - \$24,999	96.3	97.5	96.5	97.6	94.4	96.3	91.3	93.7
\$25,000 - \$29,999	97.6	98.5	97.8	98.6	95.8	97.3	93.0	95.9
\$30,000 - \$34,999	98.6	99.0	98.7	99.1	97.3	98.4	97.3	97.3
\$35,000 - \$39,999	98.8	99.2	98.9	99.4	96.9	97.8	98.2	99.4
\$40,000 - \$49,999	99.1	99.4	99.1	99.4	97.8	98.2	97.5	98.2
\$50,000 - \$74,999	99.3	99.7	99.4	99.7	97.9	98.8	99.5	99.5
\$75,000 +	99.2	99.5	99.2	99.5	97.6	97.6	98.5	98.5

TABLE 1.5 (cont.)

PERCENTAGE OF FAMILIES WITH A TELEPHONE BY FAMILY INCOME

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
MARCH 86								
TOTAL	92.2	93.9	93.6	95.0	82.0	85.8	81.5	83.9
UNDER \$5,000	71.1	76.9	74.0	79.3	63.8	71.1	56.7	61.3
\$5,000 - \$7,499	82.7	85.8	85.1	87.8	72.0	76.9	68.7	72.7
\$7,500 - \$9,999	87.6	90.0	88.8	90.8	82.1	86.4	72.1	73.9
\$10,000 - \$12,499	89.5	91.8	90.6	92.7	82.1	86.0	78.5	81.0
\$12,500 - \$14,999	91.3	94.1	92.0	94.7	87.6	90.9	84.6	90.0
\$15,000 - \$17,499	92.9	94.5	93.6	95.2	88.0	91.0	84.9	89.1
\$17,500 - \$19,999	94.6	96.0	95.2	96.4	90.1	92.8	86.1	88.8
\$20,000 - \$24,999	96.3	97.1	96.7	97.4	93.6	95.0	92.3	93.5
\$25,000 - \$29,999	97.2	98.0	97.7	98.3	91.6	94.0	92.5	92.5
\$30,000 - \$34,999	98.3	98.6	98.4	98.7	97.5	97.8	96.9	97.7
\$35,000 - \$39,999	98.9	99.2	99.1	99.3	98.1	98.1	100.0	100.0
\$40,000 - \$49,999	98.9	99.3	99.0	99.3	98.3	98.3	97.5	97.5
\$50,000 - \$74,999	99.5	99.7	99.5	99.7	99.3	99.3	100.0	100.0
\$75,000 +	99.3	99.4	99.3	99.4	100.0	100.0	98.5	100.0
JULY 86								
TOTAL	92.2	94.0	93.7	95.2	81.5	85.7	81.1	83.6
UNDER \$5,000	71.5	77.0	74.4	79.7	65.4	71.2	57.1	63.8
\$5,000 - \$7,499	82.6	86.1	85.0	87.9	73.8	79.2	64.9	68.6
\$7,500 - \$9,999	86.3	90.1	87.8	90.8	77.4	85.9	72.9	75.9
\$10,000 - \$12,499	89.6	92.4	90.8	93.2	82.9	87.3	80.9	81.9
\$12,500 - \$14,999	91.5	93.9	92.4	94.5	83.4	88.8	87.1	87.7
\$15,000 - \$17,499	93.1	95.2	94.3	95.8	84.2	90.6	86.9	88.9
\$17,500 - \$19,999	95.5	96.6	95.8	97.0	93.2	94.3	89.4	91.9
\$20,000 - \$24,999	96.6	97.6	97.0	98.0	92.1	94.0	94.5	95.0
\$25,000 - \$29,999	97.7	98.4	98.0	98.7	95.7	96.6	92.2	95.0
\$30,000 - \$34,999	98.3	98.8	98.5	99.0	96.6	97.8	98.0	98.7
\$35,000 - \$39,999	99.2	99.3	99.2	99.4	98.4	98.4	98.6	98.6
\$40,000 - \$49,999	99.1	99.4	99.1	99.4	99.0	99.0	98.1	98.9
\$50,000 - \$74,999	99.6	99.8	99.6	99.8	100.0	100.0	98.2	99.2
\$75,000 +	99.6	99.8	99.7	99.8	95.5	100.0	100.0	100.0
NOVEMBER 86								
TOTAL	92.4	94.4	93.8	95.5	81.3	86.1	81.6	84.7
UNDER \$5,000	72.3	78.3	76.3	81.3	62.6	70.9	58.9	63.7
\$5,000 - \$7,499	83.9	87.7	85.6	89.0	77.0	82.7	70.8	75.0
\$7,500 - \$9,999	86.8	90.4	88.7	91.6	76.3	83.2	73.8	77.7
\$10,000 - \$12,499	89.6	92.1	90.6	93.0	82.9	85.9	81.4	84.9
\$12,500 - \$14,999	90.8	93.6	91.3	94.0	88.1	91.3	80.0	85.7
\$15,000 - \$17,499	93.4	95.6	94.9	96.1	83.7	93.3	87.2	88.8
\$17,500 - \$19,999	94.6	96.4	94.9	96.6	93.4	95.6	86.0	89.7
\$20,000 - \$24,999	96.5	97.9	96.9	98.1	92.5	95.0	92.1	93.8
\$25,000 - \$29,999	98.2	98.9	98.4	99.0	96.2	97.1	97.0	98.1
\$30,000 - \$34,999	98.7	99.1	99.0	99.3	96.2	97.1	97.7	98.9
\$35,000 - \$39,999	98.6	99.3	98.8	99.4	96.5	97.2	95.8	99.2
\$40,000 - \$49,999	99.2	99.5	99.3	99.6	97.4	97.4	100.0	100.0
\$50,000 - \$74,999	99.5	99.7	99.6	99.8	99.0	99.0	100.0	100.0
\$75,000 +	99.3	99.7	99.3	99.7	98.6	98.6	93.9	100.0

TABLE 1.5 (cont.)

PERCENTAGE OF FAMILIES WITH A TELEPHONE BY FAMILY INCOME

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
1986 ANNUAL								
AVERAGE								
TOTAL	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
UNDER \$5,000	71.6	77.4	74.9	80.1	63.9	71.0	57.5	62.9
\$5,000 - \$7,499	83.1	86.5	85.2	88.2	74.3	79.6	68.1	72.1
\$7,500 - \$9,999	86.9	90.2	88.4	91.1	78.6	85.2	72.9	75.8
\$10,000 - \$12,499	89.6	92.1	90.7	93.0	82.6	86.4	80.3	82.6
\$12,500 - \$14,999	91.2	93.8	91.9	94.4	86.4	90.3	83.9	87.8
\$15,000 - \$17,499	93.1	95.1	94.3	95.7	85.3	91.6	86.3	88.9
\$17,500 - \$19,999	94.9	96.3	95.3	96.7	92.2	94.2	87.2	90.1
\$20,000 - \$24,999	96.5	97.5	96.9	97.9	92.8	94.6	93.0	94.1
\$25,000 - \$29,999	97.7	98.4	98.0	98.7	94.5	95.9	93.9	95.2
\$30,000 - \$34,999	98.4	98.9	98.6	99.0	96.7	97.5	97.5	98.4
\$35,000 - \$39,999	98.9	99.3	99.0	99.4	97.6	97.9	98.1	99.3
\$40,000 - \$49,999	99.1	99.4	99.1	99.4	98.2	98.2	98.5	98.8
\$50,000 - \$74,999	99.5	99.8	99.6	99.8	99.4	99.4	99.4	99.7
\$75,000 +	99.4	99.6	99.4	99.6	98.0	99.5	97.5	100.0
MARCH 87								
TOTAL	92.5	94.3	93.9	95.4	82.2	85.7	84.1	86.5
UNDER \$5,000	71.9	78.0	75.1	80.9	63.8	70.5	63.8	67.6
\$5,000 - \$7,499	83.6	86.7	85.3	87.9	76.8	81.9	69.5	73.0
\$7,500 - \$9,999	87.7	89.9	88.5	90.6	83.6	86.2	78.1	81.0
\$10,000 - \$12,499	89.4	92.0	90.5	93.1	81.4	85.2	78.9	82.1
\$12,500 - \$14,999	90.5	92.9	91.7	93.9	84.2	86.3	83.6	85.0
\$15,000 - \$17,499	92.4	94.7	93.3	95.6	85.8	88.6	83.7	88.9
\$17,500 - \$19,999	94.2	95.9	95.0	96.3	88.1	92.4	91.0	93.0
\$20,000 - \$24,999	96.6	97.4	97.1	97.9	93.5	94.6	94.1	95.1
\$25,000 - \$29,999	97.3	98.4	97.8	98.7	92.8	95.0	96.6	97.8
\$30,000 - \$34,999	98.1	98.7	98.3	98.9	96.0	96.4	96.5	97.5
\$35,000 - \$39,999	98.6	99.0	98.9	99.1	94.7	97.1	96.9	96.9
\$40,000 - \$49,999	99.4	99.7	99.4	99.7	99.6	99.6	99.6	99.9
\$50,000 - \$74,999	99.4	99.6	99.5	99.7	98.1	98.8	98.6	99.5
\$75,000 +	99.7	99.8	99.7	99.8	97.2	100.0	100.0	100.0
JULY 87								
TOTAL	92.3	94.2	93.7	95.3	82.0	86.0	83.1	85.2
UNDER \$5,000	70.7	75.9	74.1	78.7	63.8	70.5	58.0	62.7
\$5,000 - \$7,499	83.6	87.0	85.8	88.8	75.5	80.7	71.6	73.1
\$7,500 - \$9,999	86.5	89.6	88.1	90.8	78.8	83.7	76.6	79.0
\$10,000 - \$12,499	89.6	92.6	90.6	93.4	82.9	87.8	84.2	86.6
\$12,500 - \$14,999	91.2	93.7	92.3	94.4	83.6	88.8	86.3	88.4
\$15,000 - \$17,499	92.2	94.4	92.7	94.6	89.0	93.2	87.0	88.9
\$17,500 - \$19,999	94.8	96.2	95.8	97.0	88.1	91.0	87.7	87.7
\$20,000 - \$24,999	96.0	97.4	96.4	97.8	92.0	93.9	93.4	95.6
\$25,000 - \$29,999	97.6	98.4	98.1	98.8	93.7	95.2	98.7	98.7
\$30,000 - \$34,999	98.0	98.9	98.1	98.8	97.5	98.9	96.9	98.2
\$35,000 - \$39,999	98.8	99.2	98.8	99.2	97.8	98.9	96.8	96.8
\$40,000 - \$49,999	99.3	99.6	99.4	99.7	98.3	98.6	100.0	100.0
\$50,000 - \$74,999	99.4	99.8	99.4	99.9	99.4	99.4	97.6	99.1
\$75,000 +	99.4	99.8	99.4	99.7	100.0	100.0	97.2	100.0

TABLE 1.5 (cont.)

PERCENTAGE OF FAMILIES WITH A TELEPHONE BY FAMILY INCOME

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 87								
TOTAL	92.3	94.3	93.8	95.4	81.2	85.9	81.9	84.6
UNDER \$5,000	71.8	78.2	75.7	81.3	63.5	72.0	60.3	66.9
\$5,000 - \$7,499	82.9	86.5	85.6	88.7	72.2	78.0	68.5	71.0
\$7,500 - \$9,999	85.8	89.2	87.6	90.4	75.7	82.2	72.9	76.7
\$10,000 - \$12,499	89.4	92.3	90.1	92.9	85.5	89.4	80.0	83.7
\$12,500 - \$14,999	90.5	93.1	91.6	93.9	83.7	88.1	85.6	87.5
\$15,000 - \$17,499	93.3	95.5	94.5	96.2	85.8	90.6	86.1	88.4
\$17,500 - \$19,999	94.1	95.8	94.5	96.0	90.9	94.8	89.2	91.2
\$20,000 - \$24,999	96.8	98.0	97.0	98.1	95.1	96.7	92.0	94.0
\$25,000 - \$29,999	97.6	98.4	98.1	98.6	93.8	95.7	93.8	94.7
\$30,000 - \$34,999	98.1	99.0	98.5	99.2	94.8	96.4	97.4	97.4
\$35,000 - \$39,999	98.9	99.4	99.1	99.4	96.9	99.7	98.4	99.3
\$40,000 - \$49,999	99.5	99.6	99.6	99.7	98.0	98.0	99.4	99.4
\$50,000 - \$74,999	99.7	99.8	99.7	99.9	99.7	100.0	99.8	100.0
\$75,000 +	99.4	99.8	99.4	99.8	98.2	98.7	98.4	100.0
1987 ANNUAL AVERAGE								
TOTAL	92.4	94.2	93.8	95.4	81.8	85.9	83.0	85.4
UNDER \$5,000	71.5	77.4	75.0	80.3	63.7	71.0	60.7	65.7
\$5,000 - \$7,499	83.4	86.7	85.5	88.4	74.8	80.2	69.9	72.4
\$7,500 - \$9,999	86.7	89.6	88.1	90.6	79.3	84.0	75.8	78.9
\$10,000 - \$12,499	89.5	92.3	90.4	93.1	83.2	87.5	81.0	84.1
\$12,500 - \$14,999	90.8	93.2	91.9	94.1	83.8	87.7	85.2	86.9
\$15,000 - \$17,499	92.6	94.9	93.5	95.5	86.9	90.8	85.6	88.7
\$17,500 - \$19,999	94.4	96.0	95.1	96.4	89.0	92.7	89.3	90.6
\$20,000 - \$24,999	96.4	97.6	96.8	97.9	93.5	95.1	93.1	94.9
\$25,000 - \$29,999	97.5	98.4	98.0	98.7	93.4	95.3	96.4	97.1
\$30,000 - \$34,999	98.1	98.9	98.3	99.0	96.1	97.2	96.9	97.7
\$35,000 - \$39,999	98.8	99.2	98.9	99.3	96.5	98.6	97.4	97.7
\$40,000 - \$49,999	99.4	99.7	99.5	99.7	98.7	98.7	99.7	99.8
\$50,000 - \$74,999	99.5	99.8	99.5	99.8	99.1	99.4	98.7	99.6
\$75,000 +	99.5	99.8	99.5	99.8	98.5	99.6	98.6	100.0

TABLE 1.6

PERCENTAGE OF PERSONS WITH A TELEPHONE BY LABOR FORCE STATUS

	TOTAL		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 83								
TOTAL CNP	92.8	94.5	94.1	95.6	82.7	86.6	83.4	86.5
EMPLOYED	94.1	95.9	95.0	96.6	85.7	89.8	86.3	89.6
UNEMPLOYED	82.5	86.5	84.8	88.1	74.6	81.2	76.6	79.9
NOT IN LABOR FORCE	92.1	93.4	93.8	94.9	80.8	83.7	80.4	83.0
MARCH 84								
TOTAL CNP	93.0	94.5	94.2	95.5	83.5	86.7	83.3	85.7
EMPLOYED	94.5	95.9	95.3	96.5	87.6	90.8	87.1	89.3
UNEMPLOYED	82.0	85.7	83.8	87.1	75.5	80.3	73.3	76.1
NOT IN LABOR FORCE	92.0	93.3	93.8	94.9	80.2	82.7	79.6	82.1
JULY 84								
TOTAL CNP	92.8	94.5	94.1	95.5	83.1	87.1	82.7	85.7
EMPLOYED	93.9	95.6	94.9	96.3	85.6	89.6	84.8	87.8
UNEMPLOYED	81.2	84.8	83.7	86.6	73.9	79.7	74.0	78.2
NOT IN LABOR FORCE	92.4	93.8	93.9	95.1	82.1	85.7	80.8	83.5
NOVEMBER 84								
TOTAL CNP	92.6	94.4	94.1	95.5	82.0	86.2	82.9	85.5
EMPLOYED	93.8	95.6	94.8	96.4	84.7	89.1	85.1	87.8
UNEMPLOYED	81.8	85.6	84.3	87.3	74.7	80.8	74.7	77.8
NOT IN LABOR FORCE	92.0	93.4	93.8	95.0	79.8	83.2	80.6	82.9
1984 ANNUAL AVERAGE								
TOTAL CNP	92.8	94.5	94.1	95.5	82.9	86.7	83.0	85.6
EMPLOYED	94.0	95.7	95.0	96.4	85.9	89.8	85.7	88.3
UNEMPLOYED	81.7	85.3	84.0	87.0	74.7	80.2	74.0	77.4
NOT IN LABOR FORCE	92.1	93.5	93.8	95.0	80.7	83.9	80.3	82.8
MARCH 85								
TOTAL CNP	93.0	94.5	94.2	95.5	83.5	86.8	83.3	85.4
EMPLOYED	94.3	95.8	95.1	96.4	87.1	90.2	85.1	87.4
UNEMPLOYED	82.9	86.0	84.6	87.1	76.1	81.3	72.6	75.1
NOT IN LABOR FORCE	92.1	93.5	93.8	94.9	80.2	83.4	82.5	84.3
JULY 85								
TOTAL CNP	92.9	94.6	94.0	95.5	84.5	87.9	82.9	85.0
EMPLOYED	94.0	95.8	94.8	96.4	87.4	90.6	84.5	86.5
UNEMPLOYED	83.6	87.3	85.5	88.7	78.0	83.0	77.9	80.7
NOT IN LABOR FORCE	92.2	93.6	93.6	94.8	82.0	85.1	81.1	83.5

TABLE 1.6 (cont.)

PERCENTAGE OF PERSONS WITH A TELEPHONE BY LABOR FORCE STATUS

	TOTAL		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 85								
TOTAL CNP	93.1	94.7	94.3	95.7	84.4	87.4	84.2	86.9
EMPLOYED	94.4	96.0	95.2	96.6	87.5	90.5	85.8	88.7
UNEMPLOYED	80.5	84.3	82.4	86.0	74.9	79.0	70.9	74.9
NOT IN LABOR FORCE	92.3	93.7	93.9	95.1	82.2	85.1	84.2	86.0
1985 ANNUAL AVERAGE								
TOTAL CNP	93.0	94.6	94.2	95.6	84.1	87.4	83.5	85.8
EMPLOYED	94.2	95.8	95.0	96.5	87.3	90.4	85.1	87.5
UNEMPLOYED	82.3	85.8	84.2	87.3	76.3	81.1	73.8	76.9
NOT IN LABOR FORCE	92.2	93.6	93.8	94.9	81.5	84.5	82.6	84.6
MARCH 86								
TOTAL CNP	93.4	94.7	94.5	95.6	84.9	87.8	83.4	85.1
EMPLOYED	94.6	95.8	95.4	96.4	88.3	91.0	85.1	86.9
UNEMPLOYED	82.7	86.1	85.1	88.0	74.6	80.2	73.6	75.3
NOT IN LABOR FORCE	92.7	93.8	94.2	95.1	82.4	85.0	82.5	84.1
JULY 86								
TOTAL CNP	93.4	94.8	94.6	95.7	84.4	87.9	83.2	85.1
EMPLOYED	94.8	96.1	95.6	96.8	87.3	90.9	85.4	87.3
UNEMPLOYED	82.2	85.9	84.1	87.4	75.7	80.8	79.0	80.1
NOT IN LABOR FORCE	92.3	93.6	93.8	94.8	82.3	85.2	79.9	82.2
NOVEMBER 86								
TOTAL CNP	93.4	95.1	94.6	95.9	84.5	88.5	83.4	86.1
EMPLOYED	94.6	96.2	95.4	96.7	87.7	91.4	85.4	87.9
UNEMPLOYED	81.9	86.0	84.2	87.6	74.1	81.0	73.3	79.2
NOT IN LABOR FORCE	92.8	94.2	94.3	95.4	82.3	85.9	81.7	84.0
1986 ANNUAL AVERAGE								
TOTAL CNP	93.4	94.8	94.6	95.8	84.6	88.1	83.3	85.4
EMPLOYED	94.7	96.1	95.5	96.6	87.7	91.1	85.3	87.4
UNEMPLOYED	82.3	86.0	84.5	87.6	74.8	80.7	75.3	78.2
NOT IN LABOR FORCE	92.6	93.9	94.1	95.1	82.3	85.4	81.4	83.4

TABLE 1.6 (cont.)

PERCENTAGE OF PERSONS WITH A TELEPHONE BY LABOR FORCE STATUS

	TOTAL		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
MARCH 87								
TOTAL CNP	93.6	95.0	94.8	95.9	85.0	87.9	85.5	87.3
EMPLOYED	94.8	96.1	95.6	96.7	88.6	91.1	86.7	88.6
UNEMPLOYED	84.1	87.1	86.7	89.3	75.5	80.1	82.8	84.9
NOT IN LABOR FORCE	92.8	94.0	94.3	95.2	82.0	85.2	83.9	85.5
JULY 87								
TOTAL CNP	93.4	94.9	94.6	95.8	85.2	88.4	84.5	86.3
EMPLOYED	94.4	96.0	95.3	96.6	87.4	90.7	86.4	88.2
UNEMPLOYED	83.9	87.3	85.9	89.1	77.5	82.1	77.1	80.5
NOT IN LABOR FORCE	92.7	93.7	94.1	94.9	83.3	86.1	82.1	83.6
NOVEMBER 87								
TOTAL CNP	93.4	94.9	94.6	95.9	84.1	87.9	83.5	85.7
EMPLOYED	94.6	96.1	95.4	96.7	87.8	91.2	85.8	88.1
UNEMPLOYED	80.0	83.8	83.3	86.3	69.2	75.6	71.2	73.5
NOT IN LABOR FORCE	92.6	94.0	94.3	95.3	81.2	85.1	81.6	83.3
1987 ANNUAL AVERAGE								
TOTAL CNP	93.5	94.9	94.7	95.9	84.7	88.1	84.5	86.4
EMPLOYED	94.6	96.1	95.4	96.7	87.9	91.0	86.3	88.3
UNEMPLOYED	82.7	86.1	85.3	88.2	74.0	79.3	77.0	79.6
NOT IN LABOR FORCE	92.7	93.9	94.2	95.2	82.2	85.5	82.5	84.1

CHART 1.2

Percent with Telephone

Telephone Penetration

Individuals

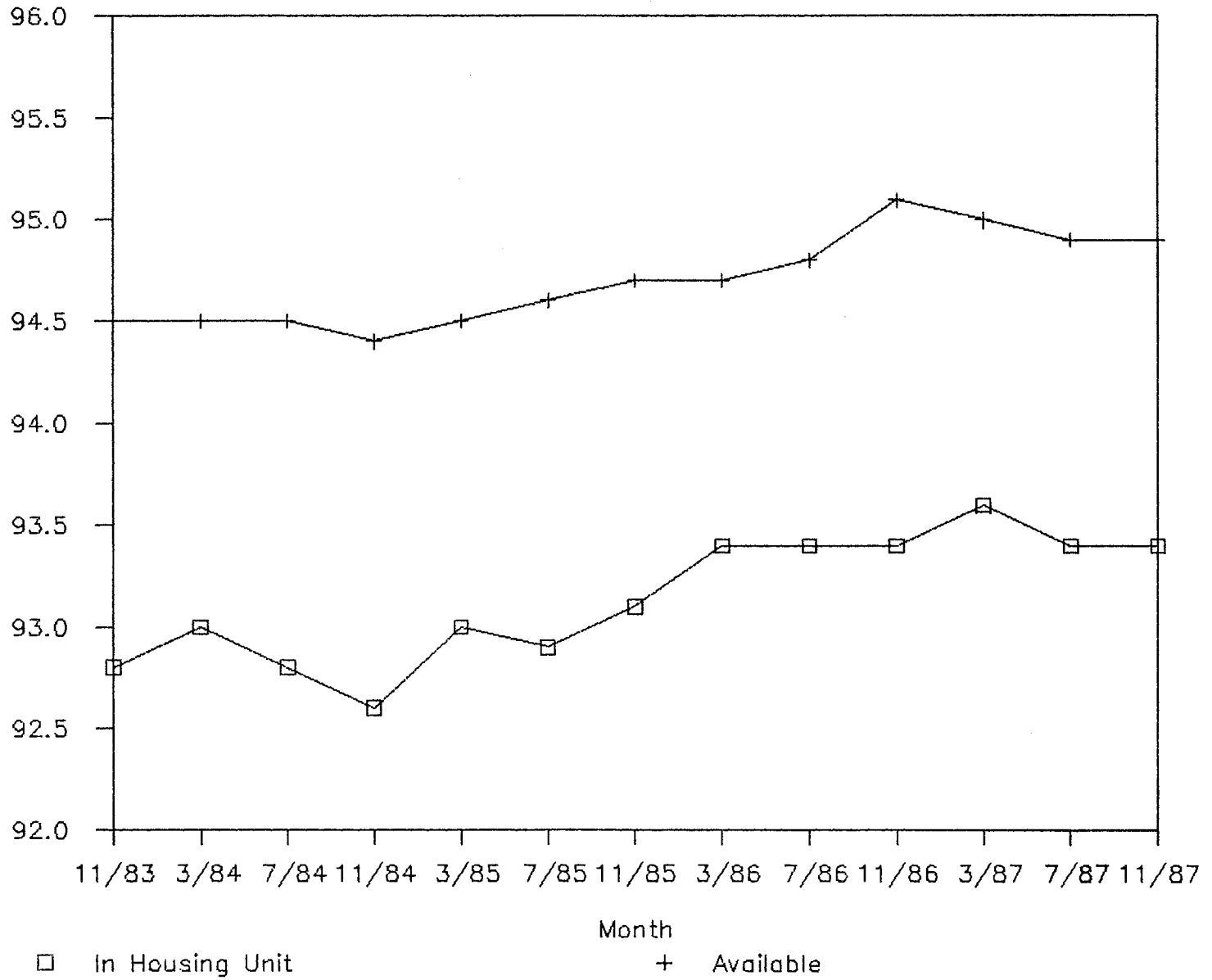


TABLE 1.7

Critical Values for Determining Significant Differences for States

<u>State</u>	<u>In Unit</u>	<u>Available</u>
Total US	0.5%	0.5%
Alabama	3.6	3.4
Alaska	5.3	4.5
Arizona	4.4	4.3
Arkansas	5.8	4.8
California	1.6	1.4
Colorado	3.3	3.0
Connecticut	2.9	1.8
Delaware	3.2	2.7
Dist. of Columbia	3.8	2.8
Florida	2.9	2.8
Georgia	4.9	4.5
Hawaii	2.7	2.1
Idaho	4.1	3.4
Illinois	2.1	1.8
Indiana	3.3	2.7
Iowa	3.0	2.3
Kansas	2.5	2.3
Kentucky	5.2	4.8
Louisiana	4.2	3.7
Maine	3.8	3.2
Maryland	3.2	2.7
Massachusetts	2.5	2.3
Michigan	2.6	2.2
Minnesota	2.6	2.4
Mississippi	4.9	4.5
Missouri	3.6	2.9
Montana	5.2	4.3
Nebraska	3.3	3.0
Nevada	5.0	4.3
New Hampshire	4.0	3.4
New Jersey	2.4	2.1
New Mexico	5.8	4.5
New York	2.1	1.9
North Carolina	3.9	3.4
North Dakota	3.9	3.5
Ohio	2.2	1.9
Oklahoma	3.8	3.6

TABLE 1.7 (cont.)

<u>State</u>	<u>In Unit</u>	<u>Available</u>
Oregon	3.5	3.0
Pennsylvania	1.6	1.3
Rhode Island	3.0	2.5
South Carolina	6.2	5.3
South Dakota	3.7	3.5
Tennessee	4.8	4.3
Texas	2.6	2.3
Utah	4.5	4.5
Vermont	5.4	4.6
Virginia	4.0	3.4
Washington	4.0	3.9
West Virginia	4.5	3.9
Wisconsin	3.2	3.0
Wyoming	4.6	3.9

TABLE 1.8

Critical Values for Determining Significant Differences for Age and Race

	ALL RACES		WHITE		BLACK		HISPANIC	
	<u>In Unit</u>	<u>Avail-able</u>	<u>In Unit</u>	<u>Avail-able</u>	<u>In Unit</u>	<u>Avail-able</u>	<u>In Unit</u>	<u>Avail-able</u>
Total Households	0.5%	0.5%	0.5%	0.5%	2.2%	1.9%	4.9%	4.4%
16 - 24 Yrs old	1.6%	1.4%	1.6%	1.5%	5.5%	5.5%	10.6%	10.2%
25 - 54 Yrs old	0.7%	0.6%	0.7%	0.6%	2.7%	2.4%	6.0%	5.4%
55 - 59 Yrs old	2.1%	1.8%	2.1%	1.8%	8.8%	7.6%	21.0%	19.0%
60 - 64 Yrs old	2.1%	1.8%	2.1%	1.8%	9.4%	8.1%	25.0%	22.4%
65 - 69 Yrs old	2.3%	2.0%	2.3%	1.9%	10.1%	8.8%	30.1%	26.7%
70 - 99 Yrs old	1.6%	1.4%	1.6%	1.4%	7.9%	6.7%	23.6%	21.2%

TABLE 1.9

Critical Values for Determining Significant Differences for Household Size

	ALL RACES		WHITE		BLACK		HISPANIC	
	<u>In Unit</u>	<u>Avail-able</u>	<u>In Unit</u>	<u>Avail-able</u>	<u>In Unit</u>	<u>Avail-able</u>	<u>In Unit</u>	<u>Avail-able</u>
Total	0.5%	0.5%	0.5%	0.5%	2.2%	1.9%	4.9%	4.4%
1 Person	1.1%	1.0%	1.1%	1.0%	4.1%	3.7%	11.9%	11.1%
2 - 3	0.8%	0.7%	0.8%	0.7%	3.4%	3.0%	7.5%	6.9%
4 - 5	1.1%	1.0%	1.2%	1.0%	4.6%	4.1%	8.8%	8.0%
6 +	2.5%	2.2%	2.8%	2.4%	7.7%	6.9%	13.9%	12.5%

TABLE 1.10

Critical Values for Determining Significant Differences for Income

	ALL RACES		WHITE		BLACK		HISPANIC	
	In Unit	Avail- able	In Unit	Avail- able	In Unit	Avail- able	In Unit	Avail- able
Total	0.5%	0.5%	0.5%	0.5%	2.2%	1.9%	4.8%	4.4%
Under \$5,000	1.3%	1.2%	1.5%	1.4%	3.4%	3.2%	9.0%	8.7%
\$5,000 - \$7,499	1.7%	1.5%	1.8%	1.6%	5.5%	5.0%	11.6%	10.7%
\$7,500 - \$9,999	2.0%	1.7%	2.0%	1.8%	7.2%	6.5%	14.5%	13.4%
\$10,000 - \$12,499	1.9%	1.6%	1.9%	1.7%	7.3%	6.5%	16.4%	15.1%
\$12,500 - \$14,999	2.1%	1.8%	2.1%	1.8%	8.5%	7.5%	18.7%	16.9%
\$15,000 - \$17,499	2.2%	1.9%	2.2%	2.0%	9.2%	8.1%	19.6%	18.0%
\$17,500 - \$19,999	2.3%	2.0%	2.3%	2.0%	10.5%	9.2%	20.5%	18.4%
\$20,000 - \$24,999	1.7%	1.5%	1.7%	1.5%	9.1%	7.8%	16.9%	15.3%
\$25,000 - \$29,999	1.9%	1.7%	1.9%	1.6%	10.8%	9.3%	22.4%	20.0%
\$30,000 - \$34,999	2.0%	1.8%	2.0%	1.7%	12.5%	10.7%	24.7%	22.1%
\$35,000 - \$39,999	2.4%	2.1%	2.4%	2.0%	15.4%	13.3%	28.6%	25.5%
\$40,000 - \$49,999	2.2%	1.9%	2.1%	1.8%	15.3%	12.9%	29.3%	26.0%
\$50,000 - \$74,999	2.3%	1.9%	2.2%	1.9%	16.4%	13.9%	32.1%	28.7%
\$75,000 +	3.5%	3.0%	3.3%	2.8%	44.6%	38.0%	54.5%	49.0%

TABLE 1.11

Critical Values for Determining Significant Differences for Employment Status

	ALL RACES		WHITE		BLACK		HISPANIC	
	<u>In Unit</u>	<u>Avail- able</u>	<u>In Unit</u>	<u>Avail- able</u>	<u>In Unit</u>	<u>Avail- able</u>	<u>In Unit</u>	<u>Avail- able</u>
Total CNP	0.8%	0.7%	0.8%	0.7%	3.2%	2.8%	7.4%	6.7%
Employed	1.0%	0.9%	1.0%	0.9%	4.0%	3.5%	9.9%	9.0%
Unemployed	3.1%	2.8%	3.4%	3.0%	9.1%	8.3%	25.4%	23.3%
Not in Labor Force	1.3%	1.1%	1.3%	1.1%	5.1%	4.4%	12.0%	10.9%

ATTACHMENT II

SUMMARY OF DISCONNECT STUDIES

Ameritech

Ameritech chose Wisconsin Bell territory as the study area for its disconnect study. It submitted comparative data for April, May, and June 1987, prior to the latest subscriber line charge (SLC) increase, and for July, August, and September 1987 after the SLC increase. It reports the following results of its study: (1) The July 1 SLC increase has not caused any discernable change in the number of disconnects. (2) Customers disconnecting voluntarily for economic reasons account for only 1% of all disconnected customers. Of these, less than 1% subscribed to the lowest-priced basic service available. (3) The only tariff rate changes during this period were the SLC increase and the interstate toll rate decrease. (4) Customers disconnected for economic or involuntary reasons spent more on discretionary services, including toll, than on basic service.

Bell Atlantic

Bell Atlantic chose Chesapeake and Potomac of Virginia territory for its disconnect study. It submitted comparative data for June 1987 before the SLC increase, and for August, September, and October 1987 after the SLC increase. It reports the following results from its study: (1) 97% of the customers involuntarily disconnected could have subscribed to a less expensive class of service and potentially saved more than the SLC. (2) Nearly all customers disconnected for economic or involuntary reasons spent more than the full SLC on toll calling. (3) The number of involuntary disconnects increased during the four months of the study; however, the available data does indicate that this has not occurred as a result of the SLC increase, since toll bills for disconnected customers increased by a greater amount. (4) Economic and involuntary disconnects appear to be primarily due to toll charges that the customers could not afford.

BellSouth

BellSouth's disconnect study used Southern Bell territory in all four states (Florida, Georgia, North Carolina, and South Carolina) that it serves. It submitted comparative data for April, May, and June 1987 before the SLC increase, and July, August, and September 1987 after the SLC increase. It reports the following results from its study: (1) The monthly variation in disconnects appears to be seasonal and unrelated to the SLC increase. (2) Customers disconnected for economic or involuntary reasons had toll charges that were substantially higher than the average for current customers. (3) Involuntarily disconnected customers in low income areas had toll charges that were on the average more than twice as high as toll charges of current customers in those areas.

GTE

GTE used the Tampa exchange of GTE Florida for its disconnect study. It submitted comparative data for June (and partial data for May) 1987 before the SLC increase, and July, August, and September 1987 after the SLC increase. It provides little analysis of its data but does note that the substantial increase in involuntary disconnections was the result of intensified bill collection efforts during the months covered by the data.

NYNEX

NYNEX chose New York Telephone territory for its disconnect study. It submitted comparative data for April, May, and June 1987 before the SLC increase, and July, August, and September 1987 after the SLC increase. Billing information was not provided, but NYNEX has promised to submit it later. It concludes that the SLC increase has had no adverse effect on the number of subscribers who disconnect from the network.

Pacific Telesis

Pacific Telesis provided disconnect information for both of its operating companies, Nevada Bell and Pacific Bell. For Nevada Bell it submitted data on the number of disconnects from April through December 1987, and bill composition data for September through December 1987. It notes that in Nevada the July 1, 1987, SLC increase was offset for six months by an equal intrastate credit, thus effectively delaying the impact of the SLC increase until January 1, 1988. Hence, all of the Nevada data should be regarded as benchmark data. The Pacific Bell disconnect data for California includes information on the number of voluntary and involuntary disconnects from January 1986 through November 1987. It also submitted partial billing information for a 5% sample of accounts for disconnected Pacific Bell customers for April, May, and June 1987 before the SLC increase, and July, August, and September 1987 after the SLC increase, as well as for a 5% sample of current customers in June and September 1987. It reports the following results of its study: (1) Voluntary disconnects follow a strong seasonal pattern with a peak in June. Involuntary disconnects have substantially less seasonal variation, but there is a peak in January. This seasonality must be considered in evaluating economic changes. (2) There has been a growth in total disconnects from 1986 to 1987, but this can be explained by the increase in the number of access lines. (3) Involuntary disconnects have decreased from 1986 to 1987. (4) Voluntary disconnects have increased from 1986 to 1987, but this can be explained by the increase in access lines. (5) There was no notable increase in disconnects after July 1987; thus, it appears that the SLC increase had no noticeable effect.

Southwestern Bell

Southwestern Bell chose its territory in Arkansas as the study area for its disconnect study. It submitted comparative data for May and June 1987 before the SLC increase, and July, August, and September 1987 after the SLC increase. It supplemented its company records with a survey of disconnected customers. It reports the following results of its study: (1) There was little difference in the survey results before and after the SLC increase. (2) Substantially more of those surveyed cited the high cost of long distance calls than the cost of local service as the reason for being disconnected. (3) About one-third of all disconnects were involuntary for nonpayment. Only 2% disconnected voluntarily for economic reasons. There were more new customers than disconnects, causing the total number of residential subscribers to increase slightly. (4) There was little difference in customer bills before and after the SLC increase. (5) Customers disconnected involuntarily or voluntarily for economic reasons had higher total bills than current customers or those disconnected for voluntary non-economic reasons. (6) Customers disconnected involuntarily or voluntarily for economic reasons spent significantly more on other local services such as Touch-Tone and Custom Calling. (7) Disconnected customers with higher incomes used more toll than disconnected customers with lower incomes.

US West

US West chose Mountain States Telephone and Telegraph territory in Arizona as the study area for its disconnect study. It submitted data for August, September, and October 1987. No data from before the SLC increase was available. Only partial billing information was provided, but US West promised more in a subsequent filing. It supplemented its company records with a sample survey of disconnected customers. It reports the following results of its study: (1) 84% of disconnected customers were disconnected because they moved. (2) Most of those disconnected for non-payment moved without paying their final bill. (3) Only about 5% of all disconnects were for economic reasons. (4) Only one customer in the survey identified the SLC as the reason for disconnecting. (5) No customers disconnected lifeline service during the study period. (6) Reasons given for disconnecting in the survey generally matched those given by the service representative. (7) Only 6% of the surveyed disconnected customers understood the purpose of the SLC.

2. Lifeline Assistance Plans

To further the universal service objectives of the Communications Act, lifeline assistance programs were established by the Joint Board and the FCC to ensure that low income subscribers do not drop off the telephone network, and additionally to encourage new subscribers to obtain service. This section discusses the three federal lifeline plans and the various state programs implemented in response to those federal programs to date. This section does not discuss the many state programs that are unrelated to the federal lifeline programs. Attachment I is a report from NECA on projected costs on a state-by-state basis for implementing lifeline assistance in 1988. Attachment II provides a summary of the annual reports, required by the Commission to recertify existing lifeline and Link Up America programs, ¹ which have thus far been received. The reports include eligibility, participation, and cost data reported by the states of North Carolina, Maryland, Vermont, and West Virginia, and by the NYNEX, US West, Ameritech, and Southwestern Bell telephone companies.

The FCC, in conjunction with the states and local telephone companies, has established lifeline programs which are designed to promote universal service by helping low income or disadvantaged individuals afford telephone service. The programs are funded through charges ultimately paid by interstate ratepayers, are managed by the states, and may take the form of a reduction in monthly charges or a reduction in service connection and installation charges. After state programs are certified by the FCC, local exchange carriers receive additional revenues from interexchange carriers to cover the cost of the program. These revenues are not funded by federal tax dollars. Under these programs, lifeline benefits are only available to persons who pass a "means" test such as eligibility for food stamps or Medicaid. A second requirement for FCC certification is that each applicant's eligibility for benefits be verified. The state has considerable latitude in selecting means tests, shaping the benefits, and determining the geographic availability of the programs.

Based on the recommendation of the Federal-State Joint Board, the FCC has made available the following three federal lifeline assistance plans:

1 MTS and WATS Market Structure and Amendment of Part 67 of the Commission's Rules, Decision and Order, CC Docket Nos. 78-72 and 80-286, (para 5) released on December 27, 1985; and Establishment of a Program to Monitor the Impact of Joint Board Decision, Order, CC Docket No. 87-339; released on August 26, 1987.

Plan 1- On December 19, 1984, the FCC adopted an optional plan which allows a reduction in fixed charges for telephone service equal to the federal subscriber line charge (SLC) for low income households satisfying a state determined means test subject to verification. This is accomplished by a 50% reduction in the SLC funded through the interstate carrier common line charge (CCLC). States wishing to take advantage of this assistance mechanism are required to implement an equal monetary reduction in the local exchange rate for those low income households to be funded from state sources. The assistance would be available for a single telephone line for the principal residence of eligible households.

Plan 2- On December 10, 1985, the FCC adopted broader lifeline assistance measures for low income households providing for a reduction in fixed charges for telephone service of twice the size of the SLC. This reduction would be achieved through a waiver of the full federal SLC up to the amount matched by state assistance, provided that the plans meet the following federal requirements:

a) means test -- highly targeted assistance plan which focuses on those individuals on limited incomes;

b) subject to verification -- procedures must be established which routinely check to ensure that those individuals eligible under the plans are the individuals benefitting under the plan;

c) availability -- for a single telephone line for the principal residence of eligible households.

The state matching contribution can be in the form of reduced local telephone service rates, reduced connection charges or deposit requirements. No restrictions are imposed on the source of funding for the state assistance. The federal assistance is to be funded by the carriers through the interstate CCLC.

Plan 3- On April 16, 1987, the FCC adopted a two part plan, Link Up America, to connect low income households to the telephone network. Under the first part, sufficient federal assistance will be provided to pay one-half of the connection charges, up to a maximum of \$30.00 in benefits to cover charges assessed for commencing telephone service. Under the second

part, when a local exchange company (LEC) offers a deferred payment plan not to exceed 12 months for service commencement charges and it does not assess the subscribers any interest charges, federal assistance will be available to that LEC to cover the interest on costs of up to \$200.

Connection assistance will be available for one telephone line per household, at a subscriber's principal place of residence. Before receiving federal assistance, a plan must meet the following criteria to ensure that the assistance is properly targeted: 1) the customer requesting assistance has lived at an address or addresses where there has been no telephone service for at least three months immediately prior to the request for assistance; 2) assistance is available, at most, once every two years; 3) the customer cannot be a dependent (as defined by the federal income tax code) under the age of 60; and 4) the customer must meet state-determined income criteria. The first two criteria are to be verified by using LEC records. The final two criteria may be self-certified. If a state determines, however, that verification of criteria #1 and #2 is administratively or economically impractical for a LEC, that the necessary information must be provided by a LEC or agency outside the state, or that other specified circumstances exist, then self-certification of these criteria will be allowed and criterion #4 must be verified by the state or LEC.

States are encouraged, but not required, to match the federal benefits and cover the remaining half of the connection charges. The states and LECs are encouraged to develop deferred payment plans for service commencement charges as well as to provide reductions in, or waivers of, security deposit requirements for low income customers who do not have poor credit histories.

Federal assistance is to be funded through the interstate CCLC until April 1989, at which time all three lifeline assistance plans will be funded through direct billing of the interexchange carriers (IXCs) by NECA. IXCs will be responsible for paying lifeline assistance if they have at least 1) 1% of the "1+" or "presubscribed" common lines presubscribed to interexchange carriers in all study areas, or 2) 5% of the presubscribed lines in any study area and a minimum of 1,000 presubscribed lines in that study area.

Two states, California and New York, have been offering a lifeline assistance program pursuant to Plan 1 since January 1985. New York switched to Plan 2 in November 1987. At this time, twenty-seven states and

the District of Columbia have been certified by the FCC to provide lifeline connection assistance under the Link Up America Program, Plan 3, which became effective July 1, 1987. Twenty-two states and the District of Columbia have been certified to offer lifeline assistance pursuant to Plan 2. Table 2.1 provides a complete listing of all approved state programs offering assistance under Plans 2 and 3, and the dates of FCC certification.

TABLE 2.1

LIFELINE & LIFELINE CONNECTION ASSISTANCE PROGRAMS

STATE	APPROVED LIFELINE	APPROVED LINK UP
1 - Alabama		10/01/87
2 - Arizona	11/14/86	1/15/88
3 - Arkansas	5/22/86	10/01/87
4 - Colorado	7/25/86	11/13/87
5 - Connecticut		11/13/87
6 - District of Columbia	3/18/86	8/19/87
7 - Hawaii	10/27/86	
8 - Idaho	7/24/87	
9 - Iowa		3/10/88
10 - Kansas		1/27/88
11 - Kentucky		12/24/87
12 - Maine	8/11/87	8/11/87*
13 - Maryland	5/22/86	10/01/87
14 - Minnesota	1/27/88	1/27/88
15 - Missouri	10/01/87	12/28/87
16 - Montana	8/11/87	8/11/87
17 - Nebraska		3/17/88
18 - Nevada	4/28/87	
19 - New Jersey		11/13/87
20 - New Mexico	4/01/87	1/15/88
21 - New York	11/2/87	8/11/87
22 - North Carolina	5/22/86	10/19/87
23 - North Dakota		12/24/87
24 - Ohio	7/01/87	10/01/87
25 - Oregon	5/22/86	
26 - Rhode Island	9/21/87	9/21/87
27 - South Carolina		12/24/87
28 - South Dakota		3/25/88
29 - Texas		10/01/87
30 - Utah	12/31/86	3/17/88
31 - Vermont	10/01/86	
32 - Virginia	12/24/87	12/24/87
33 - Washington	7/24/87	
34 - West Virginia	7/25/86	9/11/87

* Approved but not implemented as of 3/29/88.

A brief summary of Plan 2 being offered in each of these states follows. It should be noted that two states (Virginia and Minnesota) have new programs that have been added to this listing since our December report.

-Arizona: established a three year telephone Assistance Pilot Program that targets individuals at or below 150% of federal poverty guidelines. State assistance includes coverage of all costs of flat-rate unlimited local calling, wire and line maintenance fee, and a one-time upgrade of service (not to exceed a value of \$27.50). A telephone rental for a monthly fee of \$2.25 is also offered. All applicants are state interviewed and certified annually. The program was approved on November 14, 1986.

-Arkansas: established a Lifeline Measured Rate service available to residential ratepayers who meet the criteria of the federal food stamp program. The local program has been in effect since September 1984 and provides an estimated average benefit of \$4.10 per month per subscriber, independent of the waiver of the subscriber line charge.

-Colorado: enacted legislation effective September 1, 1986, to establish the Colorado low-income Telephone Assistance Program through revised state statutes. The law provides single-line dial-tone and flat-rate service in a principal residence at the equivalent of a twenty-five percent discount. Eligible subscribers are state social service recipients of financial assistance programs for the elderly and low-income disabled persons who qualify for supplemental security income under federal programs.

-District of Columbia: established an Economy II service available to residential ratepayers who are over 65 years of age and qualify under federal statutory criteria for participation in the Low Income Home Energy Assistance Programs (LIHEAP) or the Complementary Energy Assistance Program in the District. The local program provides an average benefit of \$4.81 per month per subscriber, independent of the waiver of the subscriber line charge. The program was approved on March 18, 1986.

-Hawaii: enacted legislation on April 30, 1986. The rate is \$2.70 less than the regular individual residence rate for eligible participants 60 years of age or older with total annual household income of \$10,000 or less. On October 15, 1986, the Hawaiian Telephone Company filed tariffs with the

Public Utilities Commission setting verification and income eligibility standards, providing for installation of a single residence access line and associated equipment, a 50% reduction in service connection charges, elimination of nonrecurring charges and three-month payment leniency on reduced connection charges.

-Idaho: legislation passed in 1987 (H.B. No. 298) provides for Telecommunications Service Assistance which requires that recipients meet both age and income means tests. Applicants must be a head of household, sixty years of age or older, and participants in LIHEAP (130% of the federal poverty guidelines). The Idaho Public Utilities Commission will set a uniform monthly surcharge on each business and residential access line to reimburse telephone service providers. The program matches the subscriber line charge, and was approved on July 24, 1987.

-Maine: established a Lifeline Service Program for eligible households receiving AFDC, SSI, Medicaid, Food Stamps, or Energy Assistance. The program provides reduced service and equipment charges for installation, and a reduction in the monthly rate of basic exchange service. Maine estimates over 22,250 participating subscribers (40% of those qualified) and forecasts an annual installation program of 8,600. The program was approved on August 11, 1987.

-Maryland: established a Tel-Life service available to residential ratepayers who qualify under the state general public assistance program or under the federal Social Security Act. The Public Service Commission estimates that 39,750 people will qualify under the program and that the average benefit will be \$4.40 per month per subscriber, independent of the additional discount available on initial installation and connection services and of the waiver of the subscriber line charge. The program was approved May 22, 1986.

-Minnesota: In 1987, the state of Minnesota enacted a law to provide state assistance to low income subscribers. Approximately 30,000 households may be eligible for benefits. Eligibility is certified by the Department of Human Service. The MPUC ordered all 94 local telephone companies to use the same tariff. The MPUC set a surcharge initially at 10 cents per local subscriber per month to generate approximately \$2.4 million annually. The Minnesota program was approved on January 27, 1988.

-Missouri: enacted a Lifeline Service Plan on October 1, 1987. The plan offers reduced rates of \$5.30 for one basic residential access line. Eligible subscribers must qualify for energy assistance, be at least 65 years of age or disabled, and have an annual income of no more than \$7,500. The Missouri Division of Family Services will provide Southwestern Bell with a list of residents eligible to participate. Continued eligibility will be certified by Southwestern Bell through a list provided by the Division of Family Services.

-Montana: established a program based on criteria in Montana S.B. No. 257. Assistance will be verified by the Montana Department of Social and Rehabilitation Services for subscribers receiving Medicaid (26,000 households). The state assistance for subscribers will equal the residential subscriber line charge. Reimbursement of the telephone company for discounts will be authorized by the Public Service Commission through a monthly rate surcharge. The program was approved on August 11, 1987.

-Nevada: established the Nevada Experimental Lifeline Program which has two sets of criteria for eligibility, each of which meets the federal criteria: (a) the applicant must be at least 60 years of age and the applicant's household gross income must be under 150% of the federal poverty level; (b) the applicant must be a recipient of government-funded public assistance, e.g., SSI or SSA, regardless of age, with household income under 150% of the poverty level. The Experimental Lifeline Program will be funded solely by the shareholders of Nevada Bell to provide a \$2.00 per month discount and the once-a-year 50% discount connection charge. Eligible subscribers will receive discounts without limitation to the grade of service or customer calling patterns. The program was approved on April 18, 1987.

-New Mexico: approved the Mountain Bell Low Income Telephone Assistance Program (LITAP), effective March 1, 1987. Under LITAP, Mountain Bell's customers in New Mexico who qualify for Medicaid benefits under regulations administered by the New Mexico Human Services Department, will receive a \$2.00 per month reduction in monthly bills for basic exchange service. The service and equipment charge to change to this program will be waived. Eligible customers are entitled to a 25% discount on the access line service and equipment charge.

-New York: beginning June 1, 1985, New York Telephone offered a basic lifeline plan to qualified subscribers that waived 50%

of the Subscriber Line Charge. In September 1987 the Public Service Commission ordered the telephone company to expand the program. The expanded lifeline plan provides discounts on monthly service in excess of the \$2.60 Subscriber Line Charge. One option, the Basic Lifeline plan, provides eligible subscribers a message rate access line for \$1 per month plus a 10% discount on up to \$5 of monthly usage. A second option, the Expanded Lifeline Service, provides the same \$1 per month access line plus \$10 of monthly usage for a prepaid \$9 per month. Residents who qualify for AFDC, Food Stamps, Home Relief, Medicaid, SSI and the home energy assistance program will be eligible to participate. Eligibility will be certified by the New York State Department of Social Services.

-North Carolina: established a matching program in the state which is available to ratepayers who qualify under the federal AFDC and SSI programs. The program provides for a credit on the local service bill of 100% of the subscriber line charge. The program is funded through state tax credits given to the participating LECs. The program was approved on May 26, 1986.

-Ohio: approved the low-income "telephone assistance plans" (TAPS) of eight Ohio local exchange companies. Each TAP plan offers a waiver of the security deposit and a fifty percent reduction in service connection charges upon initiation or reestablishment of service to participants in the Home Energy Assistance Program or the Ohio Energy Credits Program. The requirements in both programs have annual income limits per household. Additionally, eligibility for Ohio Energy Credits requires that the head of the household and/or the spouse be age 65 or older, or permanently or totally disabled, with gross annual household income of no more than \$9,000. The TAP offerings are provided to eligible customers through the deposit waiver and connection discount only once in a one-year period. Participants in the TAP offerings receive a waiver of the full SLC for a period of months commensurate with the amount of nonrecurring state assistance provided. United Telephone Company of Ohio's TAP program went into effect on January 6, 1986, while the other seven participating LECs began offering TAP in the spring of 1987. The FCC approved the provision of the SLC waivers in association with the TAP offerings on July 1, 1987.

-Oregon: established an Oregon Telephone Assistance Program (TAP) available to ratepayers 60 years of age or older and who qualify for the federal food stamp program. The program provides for a credit on the local service bill of \$2.00, independent of the federal waiver of the subscriber line

charge. The program was approved on May 22, 1986.

-Rhode Island: enacted legislation in October 1987 to provide a Lifeline Service Program. Eligible subscribers will receive a reduction of \$5.20 per month for a single telephone line, including one and two party unlimited local service, one-state-one-rate service, ocean state service, or enhanced Ocean State service. The program is available to residents who qualify for SSI, AFDC, GPA or Rhode Island Medical assistance. The Public Utilities Commission will monitor the program by requiring data from the telephone company within six months after the implementation. A monthly cross-check will be performed by the Department of Human Resources using computer tapes of participants provided by the telephone company.

-Utah: established a lifeline program which addresses the price of local service and the customer's cost of obtaining telephone service. Discounts are provided to eligible customers of telephone companies with rates for local service (not including extended area service, mileage charges for areas outside of the base rate areas, and optional features) above the state established standard needs budget for telephone service. Those companies include Mountain Bell, Continental Telephone Company of the West, and Beehive Telephone Company. Other telephone companies may apply to the Public Service Commission of Utah for a lifeline rate if they desire to offer one.

Customers who qualify by income or participate in any one of eight income-eligible welfare programs supervised by Utah's Department of Social Services may register themselves for lifeline services by filing a certification with their local exchange carrier, if the carrier offers lifeline telephone service.

The telephone companies, not less than annually, must verify their lists of lifeline rate participants with the eligibility lists maintained by Social Services of Utah. The program was approved on December 31, 1986.

-Vermont: enacted broad legislation on May 13, 1986 requiring the Public Service Board to adopt rates designed to implement a lifeline program, and provide a \$2.00 credit toward payment on monthly local telephone charges by eligible households. The legislation also required the department of Social Welfare to continue to administer the eligibility and verification provisions of the program. Two means of eligibility exist:

the first, participation in either AFDC, Food Stamps, Fuel Assistance, Medicaid, or Supplemental Security Income programs; the second, participation in the Vermont Department of Taxes' state sales tax credit program for individuals over 65 years old having gross income of less than \$13,000 per annum.

-Virginia: asked all twenty Virginia local exchange telephone companies, on September 8, 1987, to submit "Virginia Universal Service Plan" tariffs to be effective no later than January 1, 1988. To be eligible, a subscriber must be a recipient of Medicaid assistance as administered by the Virginia Department of Medical Assistance Service. The Commission approved the Virginia plan on December 24, 1987.

-Washington: effective July 26, 1987, eligible subscribers are verified by the State Department of Social and Health Services through participation in the following programs: AFDC, CHORE services, food stamps, SSI, refugee assistance, or the Community Options Program Entry System. Each of these programs is means-tested by the department. A 50 percent discount on the service connection fee is mandated, and the remaining portion is payable through installment payments. The local exchange deposit is also waived. The legislation creates a lifeline excise tax on all other switched access lines to support lifeline service.

-West Virginia: enacted legislation effective July 1, 1986, requiring telephone companies to provide Telephone Assistance Service to low-income residential customers. Subscribers must be either disabled or at least 60 years of age and be receiving Social Security supplemental security income benefits, aid to families with dependent children benefits, aid to dependent children-unemployed benefits, food stamps, or be a member of a household who total income qualifies under Social Security supplemental income programs.

ATTACHMENT I

LIFELINE ASSISTANCE PLANS
NECA BUDGET PROJECTIONS FOR STATE PLANS

The monitoring of Lifeline Assistance plans requires NECA to submit reports at the state and study area level of detail. Because the Link Up America program is new, having been introduced in July 1987, and the end user charge waiver historically has been netted against SLC revenues in reporting for pooling purposes, no actual amounts flowed to each LEC are available. In lieu of actuals for the prior period, NECA has submitted the projection of Lifeline Assistance amounts that were included in the Annual Tariff filing made on October 2, 1987, for calendar year 1988.

Beginning in 1988, NECA will collect actual data from the exchange carriers on a semi-annual basis in June and December of each year and will report these data in this docket as they become available.

TABLE 2.2

LIFELINE ASSISTANCE BY STATE
(PROJECTED IN 1988 DOLLARS)

STATE	END USER CHARGES WAIVED	LCA CONNECTION CHARGES	LCA-DEFERRED INTEREST	TOTAL ASSISTANCE
AK	0	0	0	0
AL	0	60,071	0	60,071
AR	160,586	60,651	0	221,237
AZ	312,000	25,343	0	337,343
CA	19,688,452	0	0	19,688,452
CO	686,400	18,020	0	704,420
CT	0	0	0	0
DC	93,600	3,426	0	97,026
DE	81,214	1,100	0	82,314
FL	0	285,827	1,676	287,503
GA	0	74,407	0	74,407
HI	163,862	0	0	163,862
IA	0	22,950	0	22,950
ID	172,550	4,453	0	177,003
IL	0	0	0	0
IN	0	0	0	0
KS	0	2,296	0	2,296
KY	0	60,681	0	60,681
LA	0	161,257	0	161,257
MA	0	0	0	0
MD	99,840	48,000	0	147,840
ME	429,624	644	0	430,268
MI	27,540	3,400	0	30,940
MN	1,123,200	47,040	0	1,170,240
MO	830,481	21,140	0	851,621
MS	0	89,622	0	89,622
MT	374,400	11,393	0	385,793
NC	732,420	108,325	0	840,745
ND	0	2,310	0	2,310
NE	475,800	20,400	0	496,200
NH	0	0	0	0
NJ	500,697	215,670	0	716,367
NM	642,720	29,125	0	671,845
NV	35,053	120	3	35,176
NY	2,297,598	577,040	40,017	2,914,655
OH	1,183,018	18,640	0	1,201,658
OK	0	11,760	0	11,760
OR	468,425	19,880	0	488,305

LIFELINE ASSISTANCE BY STATE

PA	0	20,000	0	20,000
PR	0	0	0	0
RI	453,118	7,100	138	460,356
SC	0	72,705	0	72,705
SD	135,377	13,125	0	148,502
TN	0	129,929	0	129,929
TX	0	39,630	0	39,630
UT	701,376	21,994	0	723,370
VA	78,000	148,279	0	226,279
VI	0	0	0	0
VT	485,160	0	0	485,160
WA	727,212	139,830	26	867,068
WI	0	1,960	0	1,960
WV	190,289	8,108	0	198,397
WY	70,200	8,293	0	78,493
X <u>1/</u>	936,963	0	0	936,963
	=====	=====	=====	=====
	34,357,173	2,615,944	41,860	37,014,977
	=====	=====	=====	=====

1/ X represents the national total for unsampled study areas.

ATTACHMENT II
ANNUAL LIFELINE AND LINK UP REPORT

STATE/ TELEPHONE CO. (implementation date)	PARTICIPATION / SUBSCRIBERS		COST DATA (program funding)
Maryland	Participating Households	4,382	Implementation (C&P) \$ 97,000
Public Service Commission (7/1/86 to 10/31/87)	New Subscribers	1,624	Administrative (C&P) \$ 196,340
	Number of Regrades	2,758	State verification \$ 15,000 costs
			Connection charges \$ 16,722
			Monthly charges \$ 165,761
North Carolina Utilities Commission (12/31/87)	SLOW	16,221	Implementation \$ 49,032
	New subscribers responding to SLOW	554	Administrative \$ 69,769
			State tax credits \$ 210,545
West Virginia Public Service Commission (SLOW 1986 data)	SLOW	6,345	Customer discount \$ 75,951
	LUA	3,563	(State carrier income tax credit)
Vermont Public Service Board (7/01/86 to 7/01/87)	Eligible Households	40,000	Benefits \$ 74,895
	Participation Estimate	15,912	Administrative 23,400
Southwestern Bell: Arkansas (SLOW 9/10/84)	SLOW (12/31/86) (50% new subscribers on network)	4,475	SLOW \$ 12,464
Ameritech: Ohio Bell (SLOW 4/01/87)	SLOW 11/87	581	SLOW \$ 36,748

LUA = Link Up America: connection charges
SLOW = Subscriber line charge waiver

ATTACHMENT II
(Continued)

STATE/ TELEPHONE CO. implementation date	PARTICIPATION/ SUBSCRIBERS	COST DATA (program funding)
NYNEX:		
New York Telephone Co. (50% SLCW 6/85) (100% SLCW 9/87)	SLCW 12/01/87 \$92,193	(Tracking is being developed)
U.S. West: Arizona (10/86)	Estimated eligible 3,000 Participation 6/30/87 1,195 New customers 185	(Mountain Bell refund monies) \$145,404
Colorado (9/01/86)	Estimated Eligible 35,000 Participation 18,338 6/30/87 New connects 276	(includes 25% discounts on basic and mileage) \$398,038
New Mexico (3/01/87)	Estimated eligible 40,000 Participation 10,500 6/30/87 New users 255	("revenues foregone" includes 25% discount on service, Connect equipment or transfer service). \$ 49,215
Oregon (6/01/87 to 7/01/87)	Estimated eligible 20,000 Participation 6/30/87 6,479 New connects 97	(25 cent monthly surcharge on local exchange access lines) \$155,446
Utah (1/01/87)	Eligible subscribers 60,000 Participation 14,547 6/30/87 New connects 1,915	(benefits funded by legislation) \$338,618

3. Costs and High Cost Assistance

On a nationwide average basis, approximately 28 percent of local exchange carrier (LEC) local loop costs are allocated to the interstate (federal) jurisdiction, and 72 percent are allocated to the state jurisdiction. The average cost per loop, however, varies significantly among LECs. The Commission's high cost assistance program permits LECs with very high per loop costs to allocate more of their loop costs to the interstate jurisdiction, thus recovering these costs from interexchange carriers and leaving less costs to be recovered through state rates. In this manner, the high cost assistance program operates to hold down local rates and thereby furthers one of the most important goals of federal and state regulation -- the preservation of universal telephone service. Acting on the recommendation of the Federal-State Joint Board in CC Docket No. 80-286, the Commission adopted rule changes that, effective January 1988, retargeted federal assistance provided to high cost LECs. This section of the report outlines the high cost assistance program and the changes adopted by the Commission, and discusses the baseline high cost data included in the report.

The Commission regulates the recovery by LECs of that portion of their total costs associated with the provision of interstate services. The states regulate the recovery of costs associated with intrastate services (local service and state long distance services). The Commission's high cost assistance program relates to the allocation between the state and interstate jurisdictions of non-traffic sensitive (NTS) "local loop costs" -- a term that refers to the costs of outside telephone wires, poles, and other facilities that link each telephone customer's premises to the public switched telephone network. These costs are allocated between the state and interstate jurisdictions because all local loops can be used for making and receiving state and interstate telephone calls.

Pursuant to the changes recommended by the Joint Board and adopted by the Commission, high cost assistance has been retargeted to increase benefits to small and medium sized LECs beginning in January 1988. This retargeting takes the form of an additional interstate cost allocation for such LECs.

The Commission's high cost assistance program is being implemented during a period in which the interstate allocation of loop costs is being shifted from a level based on the Subscriber Plant Factor (SPF) to a gross allocation factor of 25%. Both of these changes are being phased in over the same eight-year period. Data permitting an analysis of the increasing cost support and the changing SPF based interstate allocation are included in this report.

The Commission's high cost assistance program is administered by the National Exchange Carrier Association (NECA). As part of the administration

of the program, NECA collects certain cost data from LECs that provide service to approximately 98% of the nation's subscribers. Each year NECA collects NTS cost and loop data from the previous year, and uses it to distribute high cost assistance in the following year. In the September 1987 report, we included a restatement of the high cost data for 1985, which was recast at a rate of return of 12% instead of the 12.75% used in NECA's filing, and we used the high cost formula then in place (not the new formula that became effective in January 1988). The old and new high cost formulas are compared in Table 3.1. 1 State totals from NECA's 1987 report, covering high cost data for 1986, and using the 12.75% rate of return which was in effect in 1986 (rather than the 12% rate currently in effect) are presented in Tables 3.2 and 3.3. Table 3.2, labeled "support determination at 200,000 loops", shows the universal service fund (USF) calculation based on the new high cost formula which took effect in 1988. 2 Table 3.3, labeled "support determination at 50,000 loops", shows the USF calculation based on the old high cost formula which was in effect in 1987. Comparison of the two tables thus shows the effect of the implementation of the new formula. 3 Table 3.4 is the information corresponding to Table 3.3 for the previous year.

The remaining tables show the changes reported by NECA in specific items between the last two years. Table 3.5 shows the total unseparated revenue requirement. Table 3.6 shows the total number of loops. Table 3.7 shows the unseparated cost per loop.

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- 1 Of course, the percentages shown in the table are in addition to the 25% of all NTS costs allocated to the interstate jurisdiction under the basic allocator provided in our rules.
 - 2 The introduction of the USF and the movement of the basic interstate allocation from SPF to 25% is being accomplished over an eight-year transition period which began in 1986. Therefore, the actual support that will be paid per month in 1988 is three times the amount shown in the column headed "monthly USF as 1/8 transition" in Table 3.2.
 - 3 Since the data are for 1986, the impact of the new system of accounts is not reflected in these numbers.

TABLE 3.1
HIGH COST FORMULAS

Cost Range As % of National Average % Expense Adjustment Within Range

Old Formula, Study Areas with Over 50,000 Loops

0% - 115%	0%
115% - 150%	25%
150% and above	75%

Old Formula, Study Areas with 50,000 Loops or Less

0% - 115%	0%
115% - 150%	50%
150% and above	75%

New Formula, Study Areas with Over 200,000 Loops

0% - 115%	0%
115% - 160%	10%
160% - 200%	30%
200% - 250%	60%
250% and above	75%

New Formula, Study Areas with 200,000 Loops or Less

0% - 115%	0%
115% - 150%	65%
150% and above	75%

TABLE 3.2
DATA FOR 1986, SUBMITTED IN 1987

NATIONAL EXCHANGE CARRIERS ASSOCIATION
UNIVERSAL SERVICE FUND
EXPENSE ADJUSTMENT
STATE SUMMARY
SUPPORT DETERMINATION AT 200,000 LOOPS

STATE	UNSEPARATED REVENUE REQUIREMENT	LOOPS	USF COST/LOOP	ANNUAL USF AT 100%	MONTHLY USF AT 1/8 TRANSITION	PERCENT OF TOTAL
ALABAMA	417,632,161.61	1,577,841	266.68	13,547,468	141,120	02.83
ALASKA	94,930,486.31	246,353	385.34	29,621,860	308,564	06.19
ARIZONA	442,938,159.77	1,609,130	275.26	13,459,169	140,201	02.81
ARKANSAS	292,247,796.23	921,662	317.08	15,906,792	165,696	03.32
CALIFORNIA	3,366,496,749.79	14,418,836	233.47	39,633,172	412,849	08.28
COLORADO	359,532,275.75	1,671,532	215.09	2,879,278	29,993	00.60
CONNECTICUT	343,494,608.22	1,686,842	203.63	0	0	00.00
DELAWARE	65,659,078.76	348,315	188.50	0	0	00.00
DISTRICT OF COLUMBIA	86,402,458.49	767,536	112.57	0	0	00.00
FLORIDA	1,899,816,660.99	6,166,648	308.07	32,384,721	337,342	06.76
GEORGIA	756,739,454.23	2,739,265	276.25	13,687,670	142,580	02.86
HAWAII	83,488,176.09	483,933	172.52	0	0	00.00
IDAHO	126,688,465.38	419,610	301.91	11,735,527	122,245	02.45
ILLINOIS	957,258,178.43	5,774,341	165.77	1,488,667	15,508	00.31
INDIANA	480,417,958.66	2,367,727	202.90	1,448,499	15,087	00.30
IOWA	262,807,103.83	1,280,788	205.19	2,339,627	24,375	00.48
KANSAS	289,620,562.17	1,182,565	244.90	11,924,858	124,220	02.49
KENTUCKY	380,826,955.92	1,391,084	273.76	6,705,695	69,852	01.40
LOUISIANA	540,869,118.26	1,792,119	301.80	13,803,556	143,787	02.88
MAINE	152,757,545.96	559,667	272.94	3,256,315	33,919	00.68
MARYLAND	436,526,592.90	2,419,800	180.39	0	0	00.00
MASSACHUSETTS	509,544,887.34	3,262,486	156.18	0	0	00.00
MICHIGAN	891,200,104.40	4,404,137	202.35	2,619,551	27,288	00.54
MINNESOTA	431,307,855.60	2,090,627	206.30	4,615,687	48,080	00.96
MISSISSIPPI	299,711,688.11	881,325	340.06	8,836,177	92,045	01.84
MISSOURI	562,197,793.48	2,358,163	238.40	25,743,491	268,165	05.38
MONTANA	120,357,719.03	359,651	334.65	8,678,763	90,403	01.81
NEBRASKA	155,876,918.88	781,046	199.57	3,889,737	40,520	00.81
NEVADA	121,535,668.85	544,558	223.18	7,918,291	82,484	01.65
NEW HAMPSHIRE	141,773,537.33	542,779	261.19	470,762	4,904	00.09
NEW JERSEY	806,259,896.80	4,369,685	184.51	212,255	2,211	00.04
NEW MEXICO	175,986,175.07	601,538	292.56	18,601,800	193,749	03.88
NEW YORK	2,127,827,382.13	9,732,897	218.62	8,577,061	89,344	01.79
NORTH CAROLINA	720,988,658.38	2,825,224	255.19	11,024,349	114,837	02.30
NORTH DAKOTA	89,068,532.31	332,497	267.87	2,822,503	29,403	00.59
OHIO	920,450,939.49	4,835,553	190.35	789,106	8,219	00.16
OKLAHOMA	439,868,358.19	1,482,439	296.71	21,399,545	222,913	04.47
OREGON	310,103,681.63	1,289,115	240.55	12,097,306	126,011	02.52
PENNSYLVANIA	1,082,069,044.22	5,811,015	186.21	1,488,319	15,504	00.31
PUERTO RICO	170,816,921.41	703,621	242.76	0	0	00.00
RHODE ISLAND	94,845,436.56	482,269	196.66	0	0	00.00
SOUTH CAROLINA	422,054,060.68	1,358,935	310.57	9,109,050	94,886	01.90
SOUTH DAKOTA	82,645,152.41	306,166	269.93	2,833,093	29,513	00.59
TENNESSEE	477,758,684.62	2,072,194	230.55	1,807,756	18,831	00.37
TEXAS	2,158,278,555.00	7,842,869	275.18	61,953,030	645,348	12.94
UTAH	140,959,579.60	669,509	210.54	2,633,726	27,436	00.55

TABLE 3.2
 DATA FOR 1986, SUBMITTED IN 1987

NATIONAL EXCHANGE CARRIERS ASSOCIATION
 UNIVERSAL SERVICE FUND
 EXPENSE ADJUSTMENT
 STATE SUMMARY
 SUPPORT DETERMINATION AT 200,000 LOOPS

STATE	UNSEPARATED REVENUE REQUIREMENT	LOOPS	USF COST/LOOP	ANNUAL USF AT 100%	MONTHLY USF AT 1/8 TRANSITION	PERCENT OF TOTAL
VERMONT	83,903,756.58	271,109	309.48	3,254,435	33,902	00.68
VIRGIN ISLANDS	17,092,504.35	39,232	435.67	4,665,701	48,601	00.97
VIRGINIA	682,438,912.69	2,795,122	244.15	4,744,815	49,427	00.99
WASHINGTON	488,016,701.25	2,273,171	214.68	12,885,353	134,221	02.69
WEST VIRGINIA	254,148,136.70	733,341	346.56	10,962,489	114,193	02.29
WISCONSIN	484,658,587.01	2,189,622	221.34	3,582,276	37,316	00.74
WYOMING	92,366,846.90	221,632	416.75	6,363,319	66,285	01.33
INDUSTRY TOTAL	27,393,263,217.00	118,289,121	231.57	478,402,620	4,983,397	100.00

TOTAL NUMBER OF STUDY AREA CODES: 1485

TABLE 3.3
 DATA FOR 1986, SUBMITTED IN 1987
 NATIONAL EXCHANGE CARRIERS ASSOCIATION
 UNIVERSAL SERVICE FUND
 EXPENSE ADJUSTMENT
 STATE SUMMARY
 SUPPORT DETERMINATION AT 50,000 LOOPS

STATE	UNSEPARATED REVENUE REQUIREMENT	LOOPS	USF COST/LOOP	ANNUAL USF AT 100%	MONTHLY USF AT 1/8 TRANSITION	PERCENT OF TOTAL
ALABAMA	417,632,161.61	1,577,841	264.68	8,523,944	88,794	01.54
ALASKA	94,930,486.31	246,353	385.34	28,220,037	293,959	05.10
ARIZONA	442,938,159.77	1,609,130	275.26	12,532,757	130,551	02.26
ARKANSAS	292,247,796.23	921,662	317.08	14,629,802	152,396	02.64
CALIFORNIA	3,366,496,749.79	14,418,836	233.47	70,993,337	739,515	12.84
COLORADO	359,532,275.75	1,671,532	215.09	2,653,656	27,643	00.48
CONNECTICUT	343,494,608.22	1,686,842	203.63	0	0	00.00
DELAWARE	65,659,078.76	348,315	188.50	0	0	00.00
DISTRICT OF COLUMBIA	86,402,458.49	767,536	112.57	0	0	00.00
FLORIDA	1,899,816,660.99	6,166,648	308.07	70,422,128	733,563	12.73
GEORGIA	756,739,454.23	2,739,265	276.25	11,302,856	117,741	02.04
HAWAII	83,488,176.09	483,933	172.52	0	0	00.00
IDAHO	126,688,465.38	419,610	301.91	9,476,058	98,710	01.71
ILLINOIS	957,258,178.43	5,774,341	165.77	789,626	8,227	00.14
INDIANA	480,417,958.66	2,367,727	202.90	627,003	6,532	00.11
IOWA	262,807,103.83	1,280,788	205.19	1,315,778	13,708	00.23
KANSAS	289,620,562.17	1,182,565	244.90	10,410,083	108,440	01.88
KENTUCKY	380,826,955.92	1,391,084	273.76	7,650,445	79,693	01.38
LOUISIANA	540,869,118.26	1,792,119	301.80	20,537,435	213,934	03.71
MAINE	152,757,545.96	559,667	272.94	2,817,095	29,346	00.50
MARYLAND	436,526,592.90	2,419,800	180.39	0	0	00.00
MASSACHUSETTS	509,544,887.34	3,262,486	156.18	0	0	00.00
MICHIGAN	891,200,104.40	4,404,137	202.35	2,120,277	22,087	00.38
MINNESOTA	431,307,855.60	2,090,627	206.30	2,297,240	23,929	00.41
MISSISSIPPI	299,711,688.11	881,325	340.06	17,847,849	185,915	03.22
MISSOURI	562,197,793.48	2,358,163	238.40	19,218,957	200,201	03.47
MONTANA	120,357,719.03	359,651	334.65	10,196,698	106,216	01.84
NEBRASKA	155,876,910.88	781,046	199.57	3,426,112	35,691	00.61
NEVADA	121,535,668.85	544,558	223.18	4,423,914	46,082	00.80
NEW HAMPSHIRE	141,773,537.33	542,779	261.19	367,203	3,824	00.06
NEW JERSEY	806,259,896.80	4,369,685	184.51	163,252	1,701	00.02
NEW MEXICO	175,986,175.07	601,538	292.56	17,824,993	185,677	03.22
NEW YORK	2,127,827,382.13	9,732,897	218.62	4,649,237	48,431	00.84
NORTH CAROLINA	720,988,658.38	2,825,224	255.19	12,240,934	127,310	02.21
NORTH DAKOTA	89,068,532.31	332,497	267.87	2,447,640	25,499	00.44
OHIO	920,450,939.49	4,835,553	190.35	1,405,832	14,644	00.25
OKLAHOMA	439,868,358.19	1,482,439	296.71	19,937,267	207,680	03.60
OREGON	310,103,681.63	1,289,115	240.55	10,632,871	110,762	01.92
PENNSYLVANIA	1,082,069,044.22	5,811,015	186.21	1,182,510	12,318	00.21
PUERTO RICO	170,816,921.41	703,621	242.76	0	0	00.00
RHODE ISLAND	94,845,436.56	482,269	196.66	0	0	00.00
SOUTH CAROLINA	422,054,060.68	1,358,935	310.57	17,792,986	185,340	03.21
SOUTH DAKOTA	82,645,152.41	306,166	269.93	2,449,043	25,511	00.44
TENNESSEE	477,758,684.62	2,072,194	230.55	1,390,155	14,481	00.25
TEXAS	2,158,278,555.00	7,842,869	275.18	60,804,093	633,378	10.99
UTAH	140,959,579.60	669,509	210.54	2,398,132	24,981	00.43

TABLE 3.3

DATA FOR 1986, SUBMITTED IN 1987

NATIONAL EXCHANGE CARRIERS ASSOCIATION
 UNIVERSAL SERVICE FUND
 EXPENSE ADJUSTMENT
 STATE SUMMARY
 SUPPORT DETERMINATION AT 50,000 LOOPS

STATE	UNSEPARATED REVENUE REQUIREMENT	LOOPS	USF COST/LOOP	ANNUAL USF AT 100%	MONTHLY USF AT 1/8 TRANSITION	PERCENT OF TOTAL
VERMONT	83,903,756.58	271,109	309.48	4,157,628	43,309	00.75
VIRGIN ISLANDS	17,092,504.35	39,232	435.67	4,188,408	43,629	00.75
VIRGINIA	682,438,912.49	2,795,122	244.15	3,836,061	39,960	00.69
WASHINGTON	488,016,701.25	2,273,171	214.68	10,405,089	108,388	01.88
WEST VIRGINIA	254,148,136.70	733,341	346.56	17,371,074	180,950	03.14
WISCONSIN	484,658,587.01	2,189,622	221.34	8,129,351	84,680	01.47
WYOMING	92,366,846.90	221,632	416.75	16,617,558	173,102	03.00
INDUSTRY TOTAL	27,393,263,217.00	118,289,121	231.57	552,824,024	5,758,628	100.00

TOTAL NUMBER OF STUDY AREA CODES: 1485

TABLE 3.4
 DATA FOR 1985, SUBMITTED IN 1986
 NATIONAL EXCHANGE CARRIERS ASSOCIATION
 UNIVERSAL SERVICE FUND
 EXPENSE ADJUSTMENT
 STATE SUMMARY

STATE	UNSEPARATED REVENUE REQUIREMENT	LOOPS	UNSEPARATED REVENUE REQUIREMENT PER LOOP	UNSEPARATED INTERSTATE EXPENSE ADJUSTMENT	UNSEPARATED INTERSTATE EXPENSE ADJUSTMENT APPLICABLE TO CURRENT YEAR	PERCENT OF TOTAL
ALABAMA	403,177,044.96	1,541,330	261.57	5,596,529	1,399,134	01.15
ALASKA	83,069,417.12	243,355	341.35	23,455,100	5,863,777	04.85
ARIZONA	389,916,289.64	1,541,449	252.95	11,871,979	2,967,995	02.45
ARKANSAS	278,714,896.85	882,859	315.69	18,422,811	4,605,706	03.81
CALIFORNIA	3,236,141,075.27	14,281,301	226.59	35,630,104	8,907,530	07.37
COLORADO	339,615,978.69	1,686,315	201.39	2,447,228	611,809	00.50
CONNECTICUT	313,933,137.24	1,653,182	189.89	0	0	00.00
DELAWARE	61,480,805.67	333,039	184.60	0	0	00.00
DISTRICT OF COLUMBIA	76,744,290.76	779,688	98.42	0	0	00.00
FLORIDA	1,654,810,460.74	5,753,924	287.59	54,102,932	13,525,736	11.19
GEORGIA	667,208,406.14	2,619,232	254.73	7,616,201	1,904,051	01.57
HAWAII	81,459,525.54	467,493	174.24	0	0	00.00
IDAHO	119,093,032.78	423,829	280.99	6,530,959	1,632,742	01.35
ILLINOIS	938,965,995.59	5,756,619	163.11	220,925	55,233	00.04
INDIANA	454,931,957.16	2,357,250	192.99	748,689	187,173	00.15
IOWA	269,120,231.97	1,291,065	208.44	810,226	202,563	00.16
KANSAS	279,704,668.54	1,156,405	241.87	9,558,086	2,389,527	01.97
KENTUCKY	348,878,707.53	1,365,202	255.55	6,271,842	1,567,961	01.29
LOUISIANA	562,854,338.35	1,831,402	307.33	27,805,111	6,951,279	05.75
MAINE	141,249,724.92	531,172	265.92	3,320,667	830,168	00.68
MARYLAND	417,249,417.77	2,347,608	177.73	0	0	00.00
MASSACHUSETTS	464,654,383.39	3,157,269	147.16	0	0	00.00
MICHIGAN	865,975,542.01	4,373,901	197.98	2,112,590	528,153	00.43
MINNESOTA	413,773,025.07	2,069,414	199.94	2,802,156	700,542	00.58
MISSISSIPPI	296,145,028.73	868,335	341.04	26,220,266	6,555,068	05.42
MISSOURI	510,733,322.48	2,293,510	222.68	16,717,220	4,179,309	03.46
MONTANA	114,145,421.23	367,519	310.58	9,723,417	2,430,857	02.01
NEBRASKA	150,646,152.28	782,309	192.56	2,692,532	673,136	00.55
NEVADA	113,657,206.71	493,590	230.26	5,855,551	1,463,890	01.21
NEW HAMPSHIRE	128,324,265.42	515,959	248.71	189,961	47,492	00.03
NEW JERSEY	768,009,488.28	4,345,774	176.72	501,125	125,281	00.10
NEW MEXICO	165,865,365.10	591,043	280.63	17,504,617	4,376,155	03.62
NEW YORK	1,998,318,066.77	9,558,230	209.06	4,556,072	1,139,020	00.94
NORTH CAROLINA	653,690,227.96	2,707,458	241.44	11,000,264	2,750,067	02.27
NORTH DAKOTA	90,406,395.28	333,357	271.19	3,591,273	897,821	00.74
OHIO	842,457,519.62	4,753,438	177.23	1,143,891	285,974	00.23
OKLAHOMA	410,055,333.54	1,480,944	276.88	15,754,974	3,938,745	03.26
OREGON	288,030,314.24	1,298,062	221.89	8,742,011	2,185,504	01.80
PENNSYLVANIA	960,228,403.83	5,734,493	167.44	867,160	216,790	00.17
PUERTO RICO	150,154,077.39	647,100	232.04	0	0	00.00
RHODE ISLAND	93,407,083.65	465,782	200.53	0	0	00.00
SOUTH CAROLINA	374,739,260.72	1,309,356	286.20	13,999,069	3,499,768	02.89
SOUTH DAKOTA	83,606,377.46	303,508	275.46	3,514,191	878,551	00.72
TENNESSEE	452,153,192.52	2,033,849	222.31	2,172,147	543,037	00.44
TEXAS	1,965,793,884.95	7,666,965	256.39	52,185,556	13,046,397	10.80
UTAH	123,230,772.49	658,919	187.01	2,538,179	634,546	00.52
VERMONT	74,662,674.81	262,174	284.78	3,134,837	783,710	00.64

TABLE 3.4
 DATA FOR 1985, SUBMITTED IN 1986

NATIONAL EXCHANGE CARRIERS ASSOCIATION
 UNIVERSAL SERVICE FUND
 EXPENSE ADJUSTMENT
 STATE SUMMARY

STATE	UNSEPARATED REVENUE REQUIREMENT	LOOPS	UNSEPARATED REVENUE REQUIREMENT PER LOOP	UNSEPARATED INTERSTATE EXPENSE ADJUSTMENT	UNSEPARATED INTERSTATE EXPENSE ADJUSTMENT APPLICABLE TO CURRENT YEAR	PERCENT OF TOTAL
VIRGIN ISLANDS	12,990,607.07	35,289	368.12	2,359,070	589,768	00.48
VIRGINIA	632,007,598.02	2,690,060	234.94	3,296,054	824,015	00.68
WASHINGTON	437,425,029.08	2,237,544	195.49	10,084,043	2,521,015	02.08
WEST VIRGINIA	243,423,138.55	715,666	340.13	22,167,530	5,541,884	04.58
WISCONSIN	455,026,996.56	2,157,197	210.93	5,613,789	1,403,451	01.16
WYOMING	94,046,538.53	234,080	401.77	17,656,150	4,414,038	03.65
INDUSTRY TOTAL	25,546,102,097.23	115,985,813	220.25	483,105,084	120,776,368	100.00

TOTAL NUMBER OF STUDY AREA CODES: 1502

TABLE 3.5

National Exchange Carrier Association
Universal Service Fund
Unseparated Rev. Req. Comparison
1987 Submission vs. 1986 Submission
(1986 Rev. Req. vs. 1985 Rev. Req.)

STATE	REVENUE REQUIREMENT 1985	REVENUE REQUIREMENT 1986	DIFFERENCE	PERCENT DIFFERENCE
-----	-----	-----	-----	-----
	(A)	(B)	C=(B-A)	D=(C/B)
ALABAMA	\$403,177,045	\$417,632,162	\$14,455,117	3.46 %
ALASKA	\$83,069,417	\$94,930,486	\$11,861,069	12.49 %
ARIZONA	\$389,916,290	\$442,938,160	\$53,021,870	11.97 %
ARKANSAS	\$278,714,897	\$292,247,796	\$13,532,899	4.63 %
CALIFORNIA	\$3,236,141,075	\$3,366,496,750	\$130,355,675	3.87 %
COLORADO	\$339,615,979	\$359,532,276	\$19,916,297	5.54 %
CONNECTICUT	\$313,933,137	\$343,494,608	\$29,561,471	8.61 %
DELAWARE	\$61,480,806	\$65,659,079	\$4,178,273	6.36 %
DISTRICT OF COL.	\$76,744,291	\$86,402,458	\$9,658,168	11.18 %
FLORIDA	\$1,654,810,461	\$1,899,816,661	\$245,006,200	12.90 %
GEORGIA	\$667,208,406	\$756,739,454	\$89,531,048	11.83 %
HAWAII	\$81,459,526	\$83,488,176	\$2,028,651	2.43 %
IDAHO	\$119,093,033	\$126,688,465	\$7,595,433	6.00 %
ILLINOIS	\$938,965,996	\$957,258,178	\$18,292,183	1.91 %
INDIANA	\$454,931,957	\$480,417,959	\$25,486,001	5.30 %
IOWA	\$269,120,232	\$262,807,104	-\$6,313,128	-2.40 %
KANSAS	\$279,704,668	\$289,620,562	\$9,915,894	3.42 %
KENTUCKY	\$348,878,708	\$380,826,956	\$31,948,248	8.39 %
LOUISIANA	\$562,854,338	\$540,869,118	-\$21,985,220	-4.06 %
MAINE	\$141,249,725	\$152,757,546	\$11,507,821	7.53 %
MARYLAND	\$417,249,418	\$436,526,593	\$19,277,175	4.42 %
MASSACHUSETTS	\$464,654,383	\$509,544,887	\$44,890,504	8.81 %
MICHIGAN	\$865,975,542	\$891,200,104	\$25,224,562	2.83 %
MINNESOTA	\$413,773,025	\$431,307,855	\$17,534,831	4.07 %
MISSISSIPPI	\$296,145,029	\$299,711,688	\$3,566,659	1.19 %
MISSOURI	\$510,733,322	\$562,197,793	\$51,464,471	9.15 %
MONTANA	\$114,145,421	\$120,357,719	\$6,212,298	5.16 %
NEBRASKA	\$150,646,152	\$155,876,911	\$5,230,759	3.36 %
NEVADA	\$113,657,207	\$121,535,669	\$7,878,462	6.48 %
NEW HAMPSHIRE	\$128,324,265	\$141,773,537	\$13,449,272	9.49 %
NEW JERSEY	\$768,009,488	\$806,259,897	\$38,250,408	4.74 %
NEW MEXICO	\$165,865,365	\$175,986,175	\$10,120,810	5.75 %

TABLE 3.5

National Exchange Carrier Association
 Universal Service Fund
 Unseparated Rev. Req. Comparison
 1987 Submission vs. 1986 Submission
 (1986 Rev. Req. vs. 1985 Rev. Req.)

STATE	REVENUE REQUIREMENT 1985	REVENUE REQUIREMENT 1986	DIFFERENCE	PERCENT DIFFERENCE
	(A)	(B)	C=(B-A)	D=(C/B)
NEW YORK	\$1,998,318,067	\$2,127,827,382	\$129,509,315	6.09 %
NORTH CAROLINA	\$653,690,228	\$720,988,658	\$67,298,430	9.33 %
NORTH DAKOTA	\$90,406,395	\$89,068,532	-\$1,337,863	-1.50 %
OHIO	\$842,457,520	\$920,450,939	\$77,993,420	8.47 %
OKLAHOMA	\$410,055,333	\$439,868,358	\$29,813,025	6.78 %
OREGON	\$288,030,314	\$310,103,681	\$22,073,367	7.12 %
PENNSYLVANIA	\$960,228,401	\$1,082,069,044	\$121,840,640	11.26 %
PUERTO RICO	\$150,154,077	\$170,816,921	\$20,662,844	12.10 %
RHODE ISLAND	\$93,407,084	\$94,845,437	\$1,438,353	1.52 %
SOUTH CAROLINA	\$374,739,261	\$422,054,061	\$47,314,800	11.21 %
SOUTH DAKOTA	\$83,606,377	\$82,645,152	-\$961,225	-1.16 %
TENNESSEE	\$452,153,192	\$477,758,685	\$25,605,492	5.36 %
TEXAS	\$1,965,793,885	\$2,158,278,555	\$192,484,670	8.92 %
UTAH	\$123,230,772	\$140,959,580	\$17,728,807	12.58 %
VERMONT	\$74,662,675	\$83,903,757	\$9,241,082	11.01 %
VIRGIN ISLANDS	\$12,990,607	\$17,092,504	\$4,101,897	24.00 %
VIRGINIA	\$632,007,598	\$682,438,913	\$50,431,315	7.39 %
WASHINGTON	\$437,425,029	\$488,016,701	\$50,591,672	10.37 %
WEST VIRGINIA	\$243,423,139	\$254,148,137	\$10,724,998	4.22 %
WISCONSIN	\$455,026,996	\$484,658,587	\$29,631,590	6.11 %
WYOMING	\$94,046,538	\$92,366,847	-\$1,679,692	-1.82 %
INDUSTRY TOTAL:	\$25,546,102,093	\$27,393,263,213	\$1,847,161,120	6.74 %

TABLE 3.6

National Exchange Carrier Association
 Universal Service Fund
 Comparison of Loop Totals
 1987 Submission vs. 1986 Submission
 (1986 Loops vs. 1985 loops)

STATE	NUMBER OF LOOPS 1985	NUMBER OF LOOPS 1986	DIFFERENCE C=(B-A)	PERCENT DIFFERENCE D=(C/B)
	(A)	(B)		
ALABAMA	1,541,330	1,577,841	36,511	2.31 %
ALASKA	243,355	246,353	2,998	1.22 %
ARIZONA	1,541,449	1,609,130	67,681	4.21 %
ARKANSAS	882,859	921,662	38,803	4.21 %
CALIFORNIA	14,281,301	14,418,836	137,535	0.95 %
COLORADO	1,686,315	1,671,532	-14,783	-0.88 %
CONNECTICUT	1,653,182	1,686,842	33,660	2.00 %
DELAWARE	333,039	348,315	15,276	4.39 %
DISTRICT OF COL	779,688	767,536	-12,152	-1.58 %
FLORIDA	5,753,924	6,166,648	412,724	6.69 %
GEORGIA	2,619,232	2,739,265	120,033	4.38 %
HAWAII	467,493	483,933	16,440	3.40 %
IDAHO	423,829	419,610	-4,219	-1.01 %
ILLINOIS	5,756,619	5,774,341	17,722	0.31 %
INDIANA	2,357,250	2,367,727	10,477	0.44 %
IOWA	1,291,065	1,280,788	-10,277	-0.80 %
KANSAS	1,156,405	1,182,565	26,160	2.21 %
KENTUCKY	1,365,202	1,391,084	25,882	1.86 %
LOUISIANA	1,831,402	1,792,119	-39,283	-2.19 %
MAINE	531,172	559,667	28,495	5.09 %
MARYLAND	2,347,608	2,419,800	72,192	2.98 %
MASSACHUSETTS	3,157,269	3,262,486	105,217	3.23 %
MICHIGAN	4,373,901	4,404,137	30,236	0.69 %
MINNESOTA	2,069,414	2,090,627	21,213	1.01 %
MISSISSIPPI	868,335	881,325	12,990	1.47 %
MISSOURI	2,293,510	2,358,163	64,653	2.74 %
MONTANA	367,519	359,651	-7,868	-2.19 %
NEBRASKA	782,309	781,046	-1,263	-0.16 %
NEVADA	493,590	544,558	50,968	9.36 %
NEW HAMPSHIRE	515,959	542,779	26,820	4.94 %
NEW JERSEY	4,345,774	4,369,685	23,911	0.55 %
NEW MEXICO	591,043	601,538	10,495	1.74 %

TABLE 3.6

National Exchange Carrier Association
 Universal Service Fund
 Comparison of Loop Totals
 1987 Submission vs. 1986 Submission
 (1986 Loops vs. 1985 loops)

STATE	NUMBER OF LOOPS 1985	NUMBER OF LOOPS 1986	DIFFERENCE	PERCENT DIFFERENCE
	(A)	(B)	C=(B-A)	D=(C/B)
NEW YORK	9,558,230	9,732,897	174,667	1.79 %
NORTH CAROLINA	2,707,458	2,825,224	117,766	4.17 %
NORTH DAKOTA	333,357	332,497	-860	-0.26 %
OHIO	4,753,438	4,835,553	82,115	1.70 %
OKLAHOMA	1,480,944	1,482,439	1,495	0.10 %
OREGON	1,298,062	1,298,521	459	0.04 %
PENNSYLVANIA	5,734,493	5,811,015	76,522	1.32 %
PUERTO RICO	647,100	703,621	56,521	8.03 %
RHODE ISLAND	465,782	482,269	16,487	3.42 %
SOUTH CAROLINA	1,309,356	1,358,935	49,579	3.65 %
SOUTH DAKOTA	303,508	306,166	2,658	0.87 %
TENNESSEE	2,033,849	2,072,194	38,345	1.85 %
TEXAS	7,666,965	7,842,869	175,904	2.24 %
UTAH	658,919	669,509	10,590	1.58 %
VERMONT	262,174	271,109	8,935	3.30 %
VIRGIN ISLANDS	35,289	39,232	3,943	10.05 %
VIRGINIA	2,690,060	2,795,122	105,062	3.76 %
WASHINGTON	2,237,544	2,273,171	35,627	1.57 %
WEST VIRGINIA	715,666	733,341	17,675	2.41 %
WISCONSIN	2,157,197	2,189,622	32,425	1.48 %
WYOMING	234,080	221,632	-12,448	-5.62 %
INDUSTRY TOTAL:	115,985,813	118,298,527	2,312,714	1.95 %

TABLE 3.7

National Exchange Carrier Association
 Universal Service Fund
 Cost per Loop Comparison
 1987 Submission vs. 1986 Submission
 (1986 Cost Per Loop vs. 1985 Cost Per Loop)

STATE NAME	COST PER LOOP 1985	COST PER LOOP 1986	DIFFERENCE	PERCENT DIFFERENCE
-----	(A)	(B)	C=(B-A)	D=(C/B)
ALABAMA	\$261.58	\$264.69	\$3.11	1.17 %
ALASKA	\$341.35	\$385.34	\$43.99	11.42 %
ARIZONA	\$252.95	\$275.27	\$22.31	8.11 %
ARKANSAS	\$315.70	\$317.09	\$1.39	0.44 %
CALIFORNIA	\$226.60	\$233.48	\$6.88	2.95 %
COLORADO	\$201.40	\$215.09	\$13.70	6.37 %
CONNECTICUT	\$189.90	\$203.63	\$13.74	6.75 %
DELAWARE	\$184.61	\$188.50	\$3.90	2.07 %
DISTRICT OF COL	\$98.43	\$112.57	\$14.14	12.56 %
FLORIDA	\$287.60	\$308.08	\$20.48	6.65 %
GEORGIA	\$254.73	\$276.26	\$21.52	7.79 %
HAWAII	\$174.25	\$172.52	-\$1.73	-1.00 %
IDAHO	\$280.99	\$301.92	\$20.93	6.93 %
ILLINOIS	\$163.11	\$165.78	\$2.67	1.61 %
INDIANA	\$192.99	\$202.90	\$9.91	4.88 %
IOWA	\$208.45	\$205.19	-\$3.26	-1.59 %
KANSAS	\$241.87	\$244.91	\$3.03	1.24 %
KENTUCKY	\$255.55	\$273.76	\$18.21	6.65 %
LOUISIANA	\$307.34	\$301.80	-\$5.53	-1.83 %
MAINE	\$265.92	\$272.94	\$7.02	2.57 %
MARYLAND	\$177.73	\$180.40	\$2.66	1.48 %
MASSACHUSETTS	\$147.17	\$156.18	\$9.01	5.77 %
MICHIGAN	\$197.99	\$202.36	\$4.37	2.16 %
MINNESOTA	\$199.95	\$206.31	\$6.36	3.08 %
MISSISSIPPI	\$341.05	\$340.07	-\$0.98	-0.29 %
MISSOURI	\$222.69	\$238.40	\$15.72	6.59 %
MONTANA	\$310.58	\$334.65	\$24.07	7.19 %
NEBRASKA	\$192.57	\$199.57	\$7.01	3.51 %
NEVADA	\$230.27	\$223.18	-\$7.08	-3.17 %
NEW HAMPSHIRE	\$248.71	\$261.20	\$12.49	4.78 %
NEW JERSEY	\$176.73	\$184.51	\$7.79	4.22 %
NEW MEXICO	\$280.63	\$292.56	\$11.93	4.08 %

TABLE 3.7

National Exchange Carrier Association
 Universal Service Fund
 Cost per Loop Comparison
 1987 Submission vs. 1986 Submission
 (1986 Cost Per Loop vs. 1985 Cost Per Loop)

STATE NAME	COST PER LOOP 1985	COST PER LOOP 1986	DIFFERENCE	PERCENT DIFFERENCE
-----	-----	-----	-----	-----
	(A)	(B)	C=(B-A)	D=(C/B)
NEW YORK	\$209.07	\$218.62	\$9.55	4.37 %
NORTH CAROLINA	\$241.44	\$255.20	\$13.76	5.39 %
NORTH DAKOTA	\$271.20	\$267.88	-\$3.32	-1.24 %
OHIO	\$177.23	\$190.35	\$13.12	6.89 %
OKLAHOMA	\$276.89	\$296.72	\$19.83	6.68 %
OREGON	\$221.89	\$238.81	\$16.92	7.09 %
PENNSYLVANIA	\$167.45	\$186.21	\$18.76	10.08 %
PUERTO RICO	\$232.04	\$242.77	\$10.73	4.42 %
RHODE ISLAND	\$200.54	\$196.67	-\$3.87	-1.97 %
SOUTH CAROLINA	\$286.20	\$310.58	\$24.38	7.85 %
SOUTH DAKOTA	\$275.47	\$269.94	-\$5.53	-2.05 %
TENNESSEE	\$222.31	\$230.56	\$8.24	3.58 %
TEXAS	\$256.40	\$275.19	\$18.79	6.83 %
UTAH	\$187.02	\$210.54	\$23.52	11.17 %
VERMONT	\$284.78	\$309.48	\$24.70	7.98 %
VIRGIN ISLANDS	\$368.12	\$435.68	\$67.56	15.51 %
VIRGINIA	\$234.94	\$244.15	\$9.21	3.77 %
WASHINGTON	\$195.49	\$214.69	\$19.19	8.94 %
WEST VIRGINIA	\$340.14	\$346.56	\$6.43	1.85 %
WISCONSIN	\$210.93	\$221.34	\$10.41	4.70 %
WYOMING	\$401.77	\$416.76	\$14.99	3.60 %
INDUSTRY TOTAL:	\$220.25	\$231.56	\$11.31	4.88 %

4. Network Usage and Growth

The amount of traffic carried on the public switched network is a vital concern to the Joint Board and the Commission, since the interstate toll rate decreases that have accompanied the subscriber line charge increase were designed to make usage of the network more efficient and to stimulate its growth. To monitor use of this network, the National Exchange Carrier Association (NECA) provides monthly reports to the Commission on the volumes of switched interstate usage. To supplement this information, the Joint Board recommended that the larger local telephone companies also provide, on an annual basis, their total switched minutes of use, their interstate switched minutes of use, and their Subscriber Plant Factor (SPF), Subscriber Line Usage (SLU), and Dial Equipment Minutes (DEM) factors. The Joint Board recognized that much of this data was not previously collected by any single entity and that reports could be received and consolidated by some other entity (such as NECA).

This report includes data on switched telephone traffic as reflected in the NECA calculations of carrier common line (CCL) minutes of use from June 1984 through November 1987. Our December report included this cumulative data through August 1987. Table 4.1 shows the latest available figures on minutes of use for interstate traffic as reported by NECA, derived from the Common Line Pool earned revenues. Tables 4.2 and 4.3 show the figures for large (Tier 1) and small (non-Tier 1) companies, respectively. Since June 1986, these figures do not count the minutes from the closed end of WATS.

On October 26, 1987, a data request was sent to all cost companies seeking network usage data. NECA's compilation of the information that it received in November from Tier 1 companies for 1985 and 1986 appears at the end of this section. Table 4.4 shows premium and non-premium minutes for 1985 for all Tier 1 companies. Table 4.5 shows this data for 1986, and also provides a breakdown of these minutes into originating and terminating. The originating and terminating minutes were counted separately only from June 1986 on, so originating and terminating do not sum to the total, which includes traffic for the entire year. Tables 4.6 and 4.7 provide 1985 and 1986 company data, respectively on: the number of loops; state and interstate messages; local, state, interstate, and total SLU; and interstate SLU and SPF factors. Tables 4.8 and 4.9 provide DEM data from the Tier 1 companies for 1985 and 1986 respectively. These data are local state, interstate, and total DEM, and interstate and weighted DEM factors.

We expect that information for the Tier 1 companies for 1980 to 1984 and for the non-Tier 1 companies for 1985 and 1986 will be in the June 1988 monitoring report. Data for 1987 and future years will be collected by NECA in conjunction with the USF cost data collection.

In connection with their access tariff filings, the local exchange companies (LECs) file data with the Commission on carrier common line and traffic sensitive switched demand. Monthly CCL minutes of use data are currently available, by LEC, from July 1984 through June 1987. For the period prior to June 1986, CCL minutes were identical to traffic sensitive minutes. Beginning in June 1986, CCL minutes excluded the closed end of WATS. Data for traffic sensitive minutes of use, which include the closed end of WATS, are available, by LEC, for June 1986 and quarterly from the third quarter of 1986 through the second quarter of 1987. These data are available for public inspection in the Tariff Reference Room, Room 513, 1919 M St. NW, Washington, DC.

The United States Telephone Association (USTA), in response to a petition for reconsideration by Pacific Telephone and Nevada Telephone, requested an alternative to our October 26, 1987, request for data for 1980-84 on network usage and growth. It objected to the data collection as originally proposed in our data request for two reasons. First, it argued, the data are not comparable because of the many structural and regulatory changes during this period. Among these changes, it listed the change from pre-divestiture interstate separations and settlements to the post-divestiture access charge structure, the phase-out of the subscriber plant factor and replacement with a fixed gross allocator, the phase-out of interstate customer premises equipment costs, and the inside wire and station connection amortizations. Its second objection was that collection of the data would be costly, since it would require retrieval and reconstruction of the data from archives and verification to ensure consistency with previous filings.

Following discussions among the staff, NECA, USTA, and company representatives, the staff has decided that historical trends in usage can be tracked using data from just Tier 1 companies. Hence, non-Tier 1 companies need not file the requested data for 1980-84.

TABLE 4.1

NATIONAL EXCHANGE CARRIER ASSOCIATION.

SUPPLEMENTAL REPORT OF COMMON LINE POOL RESULTS
REPORTED AS OF JANUARY, 1988

MINUTES OF USE DERIVED FROM N E C A CCL EARNED REVENUES

TOTAL COMMON LINE POOL

(MOU REPORTED IN MILLIONS)

MONTH/YR	PREMIUM CCL MOUS			NONPREMIUM CCL MOUS		
	ORIGINATING	TERMINATING	TOTAL	ORIGINATING	TERMINATING	TOTAL
JAN 85	N/A	N/A	13,115.551	N/A	N/A	2,176.491
FEB 85	N/A	N/A	12,998.244	N/A	N/A	2,182.451
MAR 85	N/A	N/A	13,418.828	N/A	N/A	2,283.537
APR 85	N/A	N/A	13,755.632	N/A	N/A	2,270.295
MAY 85	N/A	N/A	13,810.066	N/A	N/A	2,028.473
JUN 85	N/A	N/A	13,905.208	N/A	N/A	2,295.878
JUL 85	N/A	N/A	14,146.095	N/A	N/A	2,190.388
AUG 85	N/A	N/A	14,586.024	N/A	N/A	1,994.763
SEP 85	N/A	N/A	14,456.980	N/A	N/A	1,974.874
OCT 85	N/A	N/A	15,206.389	N/A	N/A	1,781.234
NOV 85	N/A	N/A	14,285.850	N/A	N/A	1,780.633
DEC 85	N/A	N/A	15,002.159	N/A	N/A	1,767.382
JAN 86	N/A	N/A	15,291.015	N/A	N/A	1,522.729
FEB 86	N/A	N/A	14,660.418	N/A	N/A	1,498.650
MAR 86	N/A	N/A	15,790.892	N/A	N/A	1,499.893
APR 86	N/A	N/A	15,867.869	N/A	N/A	1,398.191
MAY 86	N/A	N/A	16,020.290	N/A	N/A	1,259.556
JUN 86	5,627.209	8,185.587	13,812.797	476.261	809.449	1,285.711
JUL 86	6,312.864	8,153.662	14,466.527	503.168	757.976	1,261.146
AUG 86	6,185.384	8,186.071	14,371.456	431.080	694.586	1,125.668
SEP 86	6,309.527	8,156.134	14,465.661	365.929	684.196	1,050.126
OCT 86	6,634.194	8,550.924	15,185.119	314.907	672.070	986.978
NOV 86	6,425.241	8,146.974	14,572.216	340.148	690.335	1,030.483
DEC 86	7,047.402	8,804.097	15,851.500	301.364	666.366	967.731
JAN 87	7,058.613	8,571.584	15,630.198	343.484	643.413	986.898
FEB 87	6,809.967	8,627.839	15,437.807	347.335	674.267	1,021.603
MAR 87	7,476.693	9,491.089	16,967.783	364.323	757.625	1,121.950
APR 87	7,211.369	9,219.243	16,430.613	349.150	701.620	1,050.771
MAY 87	7,116.151	8,988.462	16,104.615	301.404	678.228	979.633
JUN 87	7,538.469	9,385.587	16,924.057	269.435	697.416	966.851
JUL 87	8,358.701	9,498.012	17,856.713	333.641	680.988	1,014.630
AUG 87	7,562.707	9,509.750	17,072.458	272.059	769.865	1,041.925
SEP 87	7,557.238	9,786.639	17,343.878	265.906	659.267	925.174
OCT 87	7,922.593	10,252.890	18,175.484	252.799	637.817	890.617
NOV 87	7,701.978	9,803.620	17,505.599	225.693	618.654	844.347

TABLE 4.2

NATIONAL EXCHANGE CARRIER ASSOCIATION,

SUPPLEMENTAL REPORT OF COMMON LINE POOL RESULTS
REPORTED AS OF JANUARY, 1988

MINUTES OF USE DERIVED FROM N E C A CCL EARNED REVENUES

TIER 1

(MOU REPORTED IN MILLIONS)

MONTH/YR	PREMIUM CCL MOUS			NONPREMIUM CCL MOUS		
	ORIGINATING	TERMINATING	TOTAL	ORIGINATING	TERMINATING	TOTAL
JAN 85	N/A	N/A	12,302.152	N/A	N/A	2,158.260
FEB 85	N/A	N/A	12,201.878	N/A	N/A	2,164.499
MAR 85	N/A	N/A	12,600.320	N/A	N/A	2,264.289
APR 85	N/A	N/A	12,915.205	N/A	N/A	2,249.389
MAY 85	N/A	N/A	12,959.438	N/A	N/A	2,007.246
JUN 85	N/A	N/A	13,003.811	N/A	N/A	2,271.726
JUL 85	N/A	N/A	13,262.800	N/A	N/A	2,165.717
AUG 85	N/A	N/A	13,658.918	N/A	N/A	1,970.276
SEP 85	N/A	N/A	13,553.502	N/A	N/A	1,950.462
OCT 85	N/A	N/A	14,303.096	N/A	N/A	1,757.488
NOV 85	N/A	N/A	13,386.365	N/A	N/A	1,757.072
DEC 85	N/A	N/A	14,083.511	N/A	N/A	1,743.455
JAN 86	N/A	N/A	14,389.693	N/A	N/A	1,500.785
FEB 86	N/A	N/A	13,796.162	N/A	N/A	1,471.901
MAR 86	N/A	N/A	14,865.138	N/A	N/A	1,473.606
APR 86	N/A	N/A	14,936.675	N/A	N/A	1,371.280
MAY 86	N/A	N/A	15,074.217	N/A	N/A	1,230.870
JUN 86	5,254.578	7,644.249	12,898.828	466.516	792.899	1,259.416
JUL 86	5,923.047	7,651.164	13,574.213	493.061	742.741	1,235.804
AUG 86	5,785.260	7,656.530	13,441.791	419.461	675.863	1,095.325
SEP 86	5,916.485	7,648.035	13,564.521	353.102	660.210	1,013.314
OCT 86	6,233.504	8,034.446	14,267.951	303.066	646.796	949.863
NOV 86	6,023.411	7,637.384	13,660.795	327.586	664.848	992.435
DEC 86	6,634.286	8,287.284	14,921.571	289.873	640.974	930.848
JAN 87	6,607.185	8,023.399	14,630.585	328.947	616.153	945.101
FEB 87	6,407.150	8,117.488	14,524.639	334.613	649.567	984.181
MAR 87	7,056.055	8,957.181	16,013.237	353.048	734.194	1,087.243
APR 87	6,785.162	8,674.359	15,459.522	337.438	678.085	1,015.524
MAY 87	6,684.643	8,443.417	15,128.061	289.171	650.825	939.997
JUN 87	7,094.776	8,833.193	15,927.970	258.874	670.082	928.957
JUL 87	7,840.765	8,909.564	16,750.330	321.457	656.157	977.615
AUG 87	7,083.845	8,909.284	15,993.130	260.921	742.379	1,003.301
SEP 87	7,110.033	9,207.539	16,317.573	254.846	631.864	886.711
OCT 87	7,469.368	9,666.386	17,135.755	242.922	612.921	855.845
NOV 87	7,246.441	9,223.623	16,470.065	214.530	588.029	802.560

TABLE 4.3
NATIONAL EXCHANGE CARRIER ASSOCIATION.

SUPPLEMENTAL REPORT OF COMMON LINE POOL RESULTS
REPORTED AS OF JANUARY, 1988

MINUTES OF USE DERIVED FROM N E C A CCL EARNED REVENUES

NON-TIER 1

(MOU REPORTED IN MILLIONS)

MONTH/YR	PREMIUM CCL MOUS			NONPREMIUM CCL MOUS		
	ORIGINATING	TERMINATING	TOTAL	ORIGINATING	TERMINATING	TOTAL
JAN 85	N/A	N/A	813.399	N/A	N/A	18.231
FEB 85	N/A	N/A	796.366	N/A	N/A	17.952
MAR 85	N/A	N/A	818.509	N/A	N/A	19.248
APR 85	N/A	N/A	840.427	N/A	N/A	20.906
MAY 85	N/A	N/A	850.629	N/A	N/A	21.227
JUN 85	N/A	N/A	901.397	N/A	N/A	24.152
JUL 85	N/A	N/A	883.295	N/A	N/A	24.671
AUG 85	N/A	N/A	927.105	N/A	N/A	24.488
SEP 85	N/A	N/A	903.478	N/A	N/A	24.412
OCT 85	N/A	N/A	903.293	N/A	N/A	23.746
NOV 85	N/A	N/A	899.485	N/A	N/A	23.561
DEC 85	N/A	N/A	918.649	N/A	N/A	23.927
JAN 86	N/A	N/A	901.322	N/A	N/A	21.944
FEB 86	N/A	N/A	864.257	N/A	N/A	26.749
MAR 86	N/A	N/A	925.754	N/A	N/A	26.287
APR 86	N/A	N/A	931.194	N/A	N/A	26.911
MAY 86	N/A	N/A	946.073	N/A	N/A	28.686
JUN 86	372.630	541.338	913.969	9.744	16.549	26.295
JUL 86	389.816	502.497	892.314	10.107	15.234	25.342
AUG 86	400.123	529.541	929.665	11.619	18.723	30.343
SEP 86	393.041	508.098	901.141	12.826	23.985	36.813
OCT 86	400.689	516.478	917.168	11.841	25.273	37.115
NOV 86	401.830	509.589	911.421	12.561	25.486	38.048
DEC 86	413.116	516.812	929.929	11.490	25.391	36.883
JAN 87	451.428	548.185	999.613	14.536	27.260	41.797
FEB 87	402.816	510.351	913.168	12.722	24.700	37.422
MAR 87	420.637	533.908	954.546	11.275	23.431	34.706
APR 87	426.207	544.883	971.091	11.711	23.535	35.248
MAY 87	431.508	545.045	976.553	12.233	27.403	39.636
JUN 87	443.693	552.393	996.087	10.560	27.333	37.894
JUL 87	517.936	588.447	1,106.384	12.183	24.831	37.015
AUG 87	478.862	600.465	1,079.328	11.137	27.485	38.624
SEP 87	447.204	579.099	1,026.305	11.060	27.403	38.463
OCT 87	453.224	586.504	1,039.730	9.876	24.895	34.772
NOV 87	455.536	579.997	1,035.534	11.163	30.624	41.787

TABLE 4.4

NETWORK USAGE DATA FOR 1985 (MINUTES-PAGE 1)

CARRIER	YEAR	ORIG PREM	term prem	tot prem	orig nonprem	term nonprem	tot nonprem
NEW ENGLAND TELEPHONE-MAINE	85	0	0	716114000	0	0	29864000
NEW ENGLAND TELEPHONE-MASSACHUSETTS	85	0	0	5207022000	0	0	884651000
NEW ENGLAND TELEPHONE-NEW HAMPSHIRE	85	0	0	1163692000	0	0	84186000
SOUTHERN NEW ENGLAND TELEPHONE	85	0	0	2760890000	0	0	706043000
NEW ENGLAND TELEPHONE-VERMONT	85	0	0	459297000	0	0	15668000
CONTEL OF NEW YORK	85	0	0	209570000	0	0	204000
ROCHESTER TELEPHONE CORPORATION	85	0	0	586544000	0	0	0
NEW YORK TELEPHONE	85	0	0	14140890000	0	0	1916404000
NEW JERSEY BELL	85	0	0	8936246000	0	0	1307739000
GTE NORTH-PENNSYLVANIA	85	0	0	429847000	0	0	72573000
UNITED TELEPHONE CO OF PA	85	0	0	270186467	0	0	5994030
BELL OF PENNSYLVANIA	85	0	0	6295215000	0	0	1060370000
C&P OF MARYLAND	85	0	0	3361972000	0	0	339541000
CONTEL OF VIRGINIA	85	0	0	414647000	0	0	29408000
GTE SOUTH-VIRGINIA	85	0	0	41885000	0	0	197000
UNITED INTER-MOUNTAIN TELEPHONE-VA	85	0	0	93602302	0	0	894167
C&P OF VIRGINIA	85	0	0	3847304000	0	0	515738000
GTE SOUTH-WEST VIRGINIA	85	0	0	109521000	0	0	550000
C&P OF WEST VIRGINIA	85	0	0	885149000	0	0	66049000
GTE OF FLORIDA	85	0	0	2150763000	0	0	213257000
CENTEL OF FLORIDA	85	0	0	329038000	0	0	16900000
UNITED TELEPHONE CO OF FLORIDA	85	0	0	1193257273	0	0	10016889
SOUTHERN BELL-FLORIDA	85	0	0	6119290000	0	0	1090533000
GTE SOUTH-GEORGIA	85	0	0	205742000	0	0	10012000
SOUTHERN BELL-GEORGIA	85	0	0	4295238000	0	0	658028000
CAROLINA TELEPHONE & TELEGRAPH	85	0	0	989992665	0	0	16867344
GTE SOUTH-NORTH CAROLINA	85	0	0	205674000	0	0	34019000
SOUTHERN BELL-NORTH CAROLINA	85	0	0	2111569000	0	0	375449000
GTE SOUTH-SOUTH CAROLINA	85	0	0	216704000	0	0	15551000
SOUTHERN BELL-SOUTH CAROLINA	85	0	0	1374488000	0	0	242877000
GTE SOUTH-ALABAMA	85	0	0	177839000	0	0	1665000
SOUTH CENTRAL BELL-ALABAMA	85	0	0	1872556000	0	0	173867000
GTE SOUTH-KENTUCKY	85	0	0	405208000	0	0	60475000
CINCINNATI BELL-KENTUCKY	85	0	0	129810000	0	0	2302000
SOUTH CENTRAL BELL-KENTUCKY	85	0	0	1154402000	0	0	94042000
SOUTH CENTRAL BELL-LOUISIANA	85	0	0	2293235000	0	0	302563000
SOUTH CENTRAL BELL-MISSISSIPPI	85	0	0	1401743000	0	0	72834000
GTE SOUTH-TENNESSEE	85	0	0	58436000	0	0	2452000
UNITED INTER-MOUNTAIN TELEPHONE-TN	85	0	0	226280646	0	0	16161848
SOUTH CENTRAL BELL-TENNESSEE	85	0	0	2752040000	0	0	421043000
GTE NORTH-OHIO	85	0	0	629237000	0	0	24465000
UNITED TELEPHONE CO OF OHIO	85	0	0	455083567	0	0	19156028
CINCINNATI BELL-OHIO	85	0	0	867586000	0	0	160471000
OHIO BELL	85	0	0	3532238	0	0	857196
GTE NORTH-MICHIGAN	85	0	0	438452000	0	0	14797000
MICHIGAN BELL	85	0	0	3643325	0	0	858952
GTE NORTH-INDIANA	85	0	0	792211000	0	0	85049000
UNITED TELEPHONE CO OF INDIANA	85	0	0	191806276	0	0	509477
INDIANA BELL	85	0	0	2071991	0	0	394249
GTE NORTH-WISCONSIN	85	0	0	346613000	0	0	2699000
WISCONSIN BELL	85	0	0	1967319	0	0	267801
GTE NORTH-ILLINOIS	85	0	0	621654000	0	0	18614000
ILLINOIS BELL	85	0	0	6758397	0	0	1150744
GTE NORTH-IOWA	85	0	0	113155000	0	0	470000

TABLE 4.4

NETWORK USAGE DATA FOR 1985 (MINUTES-PAGE 1)

CARRIER	YEAR	ORIG PREM	term prem	tot prem	orig nonprem	term nonprem	tot nonprem
NORTHWESTERN BELL-IOWA	85	0	0	1412754000	0	0	301734000
GTE NORTH-MINNESOTA	85	0	0	3060000	0	0	0
NORTHWESTERN BELL-MINNESOTA	85	0	0	2425063000	0	0	262401000
GTE NORTH-NEBRASKA	85	0	0	45957000	0	0	1248000
LINCOLN TELEPHONE & TELEGRAPH	85	0	0	249541000	0	0	36100000
NORTHWESTERN BELL-NEBRASKA	85	0	0	890952000	0	0	66488000
NORTHWESTERN BELL-NORTH DAKOTA	85	0	0	410352000	0	0	33606000
NORTHWESTERN BELL-SOUTH DAKOTA	85	0	0	461669000	0	0	40792000
GTE SOUTHWEST-ARKANSAS	85	0	0	86081000	0	0	0
SOUTHWESTERN BELL-ARKANSAS	85	0	0	1050164000	0	0	124749000
SOUTHWESTERN BELL-KANSAS	85	0	0	1546025000	0	0	147247000
GTE NORTH-MISSOURI	85	0	0	115045000	0	0	19277000
SOUTHWESTERN BELL-MISSOURI	85	0	0	2796393000	0	0	674174000
GTE SOUTHWEST-OKLAHOMA	85	0	0	130180000	0	0	15000
SOUTHWESTERN BELL-OKLAHOMA	85	0	0	1893190000	0	0	267989000
GTE SOUTHWEST-TEXAS	85	0	0	974868000	0	0	49434000
CONTEL OF TEXAS	85	0	0	104622711	0	0	0
SOUTHWESTERN BELL-TEXAS	85	0	0	7296957000	0	0	1616746000
MOUNTAIN BELL-ARIZONA	85	0	0	2705941000	0	0	429343000
MOUNTAIN BELL-COLORADO	85	0	0	3212930000	0	0	460794000
GTE NORTHWEST-IDAHO	85	0	0	177189000	0	0	3414000
MOUNTAIN BELL-IDAHO	85	0	0	624912000	0	0	51569000
PACIFIC NW BELL-IDAHO	85	0	0	43759000	0	0	261000
GTE NORTHWEST-MONTANA	85	0	0	10953000	0	0	20000
MOUNTAIN BELL-MONTANA	85	0	0	517339000	0	0	56292000
GTE SOUTHWEST-NEW MEXICO	85	0	0	80127000	0	0	7000
MOUNTAIN BELL-NEW MEXICO	85	0	0	909062000	0	0	173348000
MOUNTAIN BELL-UTAH	85	0	0	996070000	0	0	222444000
MOUNTAIN BELL-WYOMING	85	0	0	490735000	0	0	50960000
GTE NORTHWEST-WASHINGTON	85	0	0	556645000	0	0	32644000
PACIFIC NW BELL-WASHINGTON	85	0	0	2411592000	0	0	341360000
GTE NORTHWEST-OREGON	85	0	0	360674000	0	0	10297000
PACIFIC NW BELL-OREGON	85	0	0	1498165000	0	0	307567000
CONTEL OF CALIFORNIA	85	0	0	197044895	0	0	629584
GTE OF CALIFORNIA	85	0	0	2577873000	0	0	115109000
GTE NORTHWEST-CALIFORNIA	85	0	0	8603000	0	0	0
PACIFIC BELL	85	0	0	10959337	0	0	2918309017
CENTEL-NEVADA	85	0	0	805886902	0	0	31610735
NEVADA BELL	85	0	0	418847000	0	0	43631000
DIAMOND STATE TELEPHONE	85	0	0	791315000	0	0	90366000
C&P OF WASHINGTON D.C.	85	0	0	1415088000	0	0	670881000
NEW ENGLAND TELEPHONE-RHODE ISLAND	85	0	0	792642000	0	0	115810000
GTE HAWAIIAN TELCO	85	0	0	565602000	0	0	77836000

TABLE 4.5

NETWORK USAGE DATA FOR 1986 (MINUTES-PAGE 1)

CARRIER	YEAR	ORIG PREM	term prem	tot prem	orig nonprem	term nonprem	tot nonprem
NEW ENGLAND TELEPHONE-MAINE	86	195889000	254271000	747527000	2488000	21644000	44872000
NEW ENGLAND TELEPHONE-MASSACHUSETTS	86	1446188000	1793143000	5688579000	60586000	154963000	382264000
NEW ENGLAND TELEPHONE-NEW HAMPSHIRE	86	339916000	420404000	1290778000	4734000	35852000	67736000
SOUTHERN NEW ENGLAND TELEPHONE	86	1295441000	1704262000	2999703000	223622000	437055000	660677000
NEW ENGLAND TELEPHONE-VERMONT	86	126996000	170538000	520872000	857000	18242000	29027000
CONTEL OF NEW YORK	86	59785000	83192000	234380000	403000	3267000	3825000
ROCHESTER TELEPHONE CORPORATION	86	118060000	160594000	475546000	19721000	19957000	101577000
NEW YORK TELEPHONE	86	3986371000	4595546000	15048490000	179553000	557693000	1298447000
NEW JERSEY BELL	86	2362342000	3093095000	9511902000	105540000	208690000	675264000
GTE NORTH-PENNSYLVANIA	86	121532000	158461000	462944000	18432000	13997000	59498000
UNITED TELEPHONE CO OF PA	86	91471033	6719433	273377167	2862949	1903902	8875129
BELL OF PENNSYLVANIA	86	1637436000	2445112000	7170998000	61670000	136101000	422473000
C&P OF MARYLAND	86	895673000	1257710000	3589692000	65623000	127551000	332881000
CONTEL OF VIRGINIA	86	113013000	181707000	478969000	7161000	9928000	29629000
GTE SOUTH-VIRGINIA	86	8617000	13527000	40339000	723000	582000	1347000
UNITED INTER-MOUNTAIN TELEPHONE-VA	86	24787280	33614106	97227506	24961	202203	618498
C&P OF VIRGINIA	86	1095633000	1304594000	4010857000	29407000	78343000	198284000
GTE SOUTH-WEST VIRGINIA	86	28058000	37850000	112308000	1388000	1005000	2473000
C&P OF WEST VIRGINIA	86	200099000	333285000	914837000	5958000	29030000	60519000
GTE OF FLORIDA	86	565082000	704771000	2308547000	46221000	80659000	233387000
CENTEL OF FLORIDA	86	76938000	103546000	354626000	11342000	14230000	33654000
UNITED TELEPHONE CO OF FLORIDA	86	320107402	381743132	1287017694	18422036	25426799	61121193
SOUTHERN BELL-FLORIDA	86	1711393000	2143492000	6836459000	173753000	105394000	547129000
GTE SOUTH-GEORGIA	86	45581000	67191000	195911000	626000	144000	3506000
SOUTHERN BELL-GEORGIA	86	1098717000	1407240000	4544788000	91055000	59918000	309848000
CAROLINA TELEPHONE & TELEGRAPH	86	272115857	356040770	1084686235	2654697	15230919	31752592
GTE SOUTH-NORTH CAROLINA	86	51669000	72231000	210160000	1817000	806000	10842000
SOUTHERN BELL-NORTH CAROLINA	86	515727000	802174000	2358553000	58960000	58967000	236116000
GTE SOUTH-SOUTH CAROLINA	86	65125000	72208000	216888000	784000	1528000	6966000
SOUTHERN BELL-SOUTH CAROLINA	86	381772000	50678000	1541386000	55358000	45131000	191345000
GTE SOUTH-ALABAMA	86	46410000	57789000	179807000	1355000	84000	5577000
SOUTH CENTRAL BELL-ALABAMA	86	449667000	658405000	1951816000	19838000	59651000	131380000
GTE SOUTH-KENTUCKY	86	95419000	146002000	413174000	12139000	12909000	44127000
CINCINNATI BELL-KENTUCKY	86	31066000	44785000	136438000	1151000	1832000	5405000
SOUTH CENTRAL BELL-KENTUCKY	86	290315000	400688000	1218852000	13287000	44130000	93775000
SOUTH CENTRAL BELL-LOUISIANA	86	565704000	771105000	2349509000	46481000	73661000	202039000
SOUTH CENTRAL BELL-MISSISSIPPI	86	350064000	498614000	1464634000	11017000	50079000	94922000
GTE SOUTH-TENNESSEE	86	13003000	18302000	53942000	68000	168000	1096000
UNITED INTER-MOUNTAIN TELEPHONE-TN	86	51654599	77940393	225062498	5296253	8481178	21006765
SOUTH CENTRAL BELL-TENNESSEE	86	658977000	914523000	2821160000	44777000	80446000	211096000
GTE NORTH-OHIO	86	149520000	205644000	641568000	3816000	1333000	12661000
UNITED TELEPHONE CO OF OHIO	86	99225228	156847897	449674672	9439406	10853472	29304416
CINCINNATI BELL-OHIO	86	173990000	275151000	837152000	41289000	60168000	173668000
OHIO BELL	86	716286	1342844	3840317	109625	160020	481204
GTE NORTH-MICHIGAN	86	110053000	142034000	439775000	3057000	1949000	9520000
MICHIGAN BELL	86	1060386	1366936	4316837	68357	142420	401008
GTE NORTH-INDIANA	86	182341000	265118000	809428000	19538000	17158000	66254000
UNITED TELEPHONE CO OF INDIANA	86	45641983	64904586	193377838	351080	183905	671088
INDIANA BELL	86	500092	697088	2138219	23657	68623	177599
GTE NORTH-WISCONSIN	86	84608000	122043000	366143000	3218000	1973000	6896000
WISCONSIN BELL	86	451435	769486	2136917	21516	75008	160066
GTE NORTH-ILLINOIS	86	150230000	200179000	614503000	7124000	5317000	27232000
ILLINOIS BELL	86	1745498	232344	7060190	62879	142404	471671
GTE NORTH-IOWA	86	27073000	42581000	120769000	20000	18000	38000

TABLE 4.5

NETWORK USAGE DATA FOR 1986 (MINUTES-PAGE 1)

CARRIER	YEAR	ORIG PREM	term prem	tot prem	orig nonprem	term nonprem	tot nonprem
NORTHWESTERN BELL-IOWA	86	353652000	442935000	1345124000	69601000	87134000	253005000
GTE NORTH-MINNESOTA	86	929000	1049000	3326000	0	0	0
NORTHWESTERN BELL-MINNESOTA	86	505976000	772424000	2391671000	19346000	39071000	120050000
GTE NORTH-NEBRASKA	86	10679000	17110000	47451000	0	0	151000
LINCOLN TELEPHONE & TELEGRAPH	86	55851000	72271000	233633000	8079000	21791000	51414000
NORTHWESTERN BELL-NEBRASKA	86	166629000	269233000	831476000	11609000	21940000	60726000
NORTHWESTERN BELL-NORTH DAKOTA	86	91435000	142619000	425802000	2764000	13346000	31062000
NORTHWESTERN BELL-SOUTH DAKOTA	86	99338000	133050000	421761000	11049000	22030000	66116000
GTE SOUTHWEST-ARKANSAS	86	21875000	27541000	83686000	0	0	0
SOUTHWESTERN BELL-ARKANSAS	86	208233000	306390000	1076267000	7289000	42552000	106536000
SOUTHWESTERN BELL-KANSAS	86	332336000	440754000	1614855000	14177000	39065000	110328000
GTE NORTH-MISSOURI	86	28474000	43608000	124678000	1454000	8535000	13764000
SOUTHWESTERN BELL-MISSOURI	86	540201000	888216000	2995721000	30539000	68081000	294447000
GTE SOUTHWEST-OKLAHOMA	86	35898000	41851000	133661000	0	6000	1889000
SOUTHWESTERN BELL-OKLAHOMA	86	407231000	555314000	1982126000	16373000	43263000	144338000
GTE SOUTHWEST-TEXAS	86	290627000	332656000	1060719000	2497000	17073000	33900000
CONTEL OF TEXAS	86	29357783	34994994	109981894	62993	119845	182838
SOUTHWESTERN BELL-TEXAS	86	1656470000	2237796000	8081222000	177415000	219827000	855826000
MOUNTAIN BELL-ARIZONA	86	777343000	967302000	3067793000	34580000	22716000	128541000
MOUNTAIN BELL-COLORADO	86	827501000	1074501000	3479867000	51201000	46440000	296974000
GTE NORTHWEST-IDAHO	86	45020000	55808000	169379000	1812000	2214000	6042000
MOUNTAIN BELL-IDAHO	86	130988000	181865000	570597000	5236000	12159000	29732000
PACIFIC NM BELL-IDAHO	86	10712000	10906000	40674000	3000	152000	269000
GTE NORTHWEST-MONTANA	86	3129000	3787000	11614000	3000	0	3000
MOUNTAIN BELL-MONTANA	86	102078000	169418000	503342000	2371000	8744000	16473000
GTE SOUTHWEST-NEW MEXICO	86	20395000	20646000	71768000	14000	114000	259000
MOUNTAIN BELL-NEW MEXICO	86	264414000	321846000	998285000	10465000	18251000	58394000
MOUNTAIN BELL-UTAH	86	246777000	401930000	1196013000	15004000	17984000	65662000
MOUNTAIN BELL-WYOMING	86	131574000	155908000	502542000	1951000	8328000	26282000
GTE NORTHWEST-WASHINGTON	86	142081000	180057000	558471000	9933000	4322000	24979000
PACIFIC NM BELL-WASHINGTON	86	646210000	812086000	2548168000	34475000	79944000	245030000
GTE NORTHWEST-OREGON	86	84318000	120244000	359573000	10977000	11536000	31659000
PACIFIC NM BELL-OREGON	86	369089000	536606000	1606779000	18736000	58243000	156530000
CONTEL OF CALIFORNIA	86	62477941	66772085	217887840	1138788	525975	1995378
GTE OF CALIFORNIA	86	747543000	803784000	2643039000	23649000	54121000	124756000
GTE NORTHWEST-CALIFORNIA	86	2602000	2945000	9596000	0	0	0
PACIFIC BELL	86	3297691620	3750775409	12362797837	177841121	459751549	1255136414
CENTEL-NEVADA	86	415933602	419959543	835893145	5752232	7150527	12902759
NEVADA BELL	86	220687000	237645000	458332000	8843000	19346000	28189000
DIAMOND STATE TELEPHONE	86	211653000	297375000	895784000	5844000	2871000	42508000
C&P OF WASHINGTON D.C.	86	295469000	653453000	1662841000	38663000	80222000	254548000
NEW ENGLAND TELEPHONE-RHODE ISLAND	86	257064000	307076000	970081000	8778000	21337000	48770000
GTE HAWAIIAN TELCO	86	166242000	200704000	629366000	25665000	41471000	91522000

TABLE 4.6

NETWORK USAGE DATA FOR 1985 (MESSAGES & SLU-PAGE 2)

CARRIER	YEAR	NO. LOOPS	ST MSGS	IS MSGS	LOC SLU	ST SLU	IS SLU	TOT SLU	IS SLU F	IS SPF F
NEW ENGLAND TELEPHONE-MAINE	85	465075	94854524	57641701	4792715034	916369384	864010148	6573094566	0.1314460	0.2986700
NEW ENGLAND TELEPHONE-MASSACHUSET	85	3154474	682901271	518522117	43612378542	5932039100	6934079122	56478514764	0.1227740	0.2794090
NEW ENGLAND TELEPHONE-NEW HAMPSHI	85	486887	92446299	113671891	4976892187	787635920	1497337204	7261865311	0.2061920	0.4299240
SOUTHERN NEW ENGLAND TELEPHONE	85	1875185	388524104	318057138	21232701877	3892048705	4980742924	30105493506	0.1513360	0.3387940
NEW ENGLAND TELEPHONE-VERMONT	85	224685	39233692	46052217	2319250186	356835056	615851202	3291936444	0.1870790	0.4394470
CONTEL OF NEW YORK	85	193319	48851450	9936187	1763524194	633221906	254046413	2650792513	0.0958000	0.2286000
ROCHESTER TELEPHONE CORPORATION	85	408620	32684258	42025816	5939485674	569250914	534534173	7043270765	0.0759210	0.2217030
NEW YORK TELEPHONE	85	8711843	537035025	1313004398	143167334312	6410529634	19755329610	169333193556	0.1167130	0.2823270
NEW JERSEY BELL	85	4230412	1575418000	915219000	46150813000	15233542000	11738232000	73122587000	0.1605280	0.3185660
GTE NORTH-PENNSYLVANIA	85	379348	119586054	66838529	5168627314	665315943	490052776	6323996020	0.0702393	0.2257502
UNITED TELEPHONE CO OF PA	85	247683	59195552	26546812	2587573478	620049571	322745495	3530368544	0.0914200	0.2197410
BELL OF PENNSYLVANIA	85	4552125	665120672	578266912	66363106236	8160739007	9283434825	83807280068	0.1107710	0.2151520
C&P OF MARYLAND	85	2344180	155582520	271573178	40546858458	1499494429	4013928973	46060281860	0.0871450	0.2143570
CONTEL OF VIRGINIA	85	254414	52687494	20130906	3057223201	771324278	604008698	4432556177	0.1362670	0.3247900
GTE SOUTH-VIRGINIA	85	28083	7490007	6337270	546016961	62149219	58702792	666868974	0.0872692	0.2004507
UNITED INTER-MOUNTAIN TELEPHONE-V	85	0	8821181	8143889	963561713	107794963	122569505	1193926181	0.1026610	0.2128640
C&P OF VIRGINIA	85	2114869	214296157	305350910	34510494423	2513616846	4491670103	41515781372	0.1081920	0.2692790
GTE SOUTH-WEST VIRGINIA	85	60090	11489191	9764999	959797284	158120178	124533732	12652574	0.1262574	0.2932944
C&P OF WEST VIRGINIA	85	618430	90181128	77483970	10301470920	1017982690	1130119168	12449572778	0.0907760	0.2151670
GTE OF FLORIDA	85	1421056	368086582	269477852	15544596365	2060361153	2638081343	20243038861	0.1207371	0.4354267
CENTEL OF FLORIDA	85	170656	21480778	19278236	2212019326	346926279	395426193	2954371798	0.1338040	0.3592900
UNITED TELEPHONE CO OF FLORIDA	85	725569	106261729	68846444	6980705012	1249145001	1385411574	9615261587	0.1440850	0.5014810
SOUTHERN BELL-FLORIDA	85	3539001	519937491	495062697	52305309239	5602306248	7616467174	65524082661	0.1162440	0.3642570
GTE SOUTH-GEORGIA	85	175645	49585116	61025918	2744582922	478941903	304302098	3527826917	0.0876890	0.2170137
SOUTHERN BELL-GEORGIA	85	2257531	261524212	401170059	43161140764	2819986765	5252474595	51233602124	0.1025250	0.2890770
CAROLINA TELEPHONE & TELEGRAPH	85	660388	128762895	67963695	8814109614	1309918033	1142783502	11266811149	0.1014290	0.2444350
GTE SOUTH-NORTH CAROLINA	85	129422	43441245	32208425	2176460590	289677675	329280822	2795419078	0.1266431	0.3102001
SOUTHERN BELL-NORTH CAROLINA	85	1363410	240110274	198598029	22590385658	2558798582	2618057489	27767241729	0.0949040	0.2441090
GTE SOUTH-SOUTH CAROLINA	85	124147	27227573	27142667	1933974870	265342187	315713065	2515030122	0.1316609	0.3291139
SOUTHERN BELL-SOUTH CAROLINA	85	901869	106321417	128076749	17245819245	1196750656	1715877522	20158447423	0.08512300	0.2207020
GTE SOUTH-ALABAMA	85	107903	27788772	20823843	1754820514	227766072	248013094	2230599681	0.1089943	0.3122872
SOUTH CENTRAL BELL-ALABAMA	85	1265627	152769260	169443391	25155894590	1585167974	2496473587	29237536151	0.0854010	0.2078280
GTE SOUTH-KENTUCKY	85	289167	79487573	82412513	5449503714	536941879	604186447	6590632049	0.0907743	0.2536613
CINCINNATI BELL-KENTUCKY	85	122163	5005413	12353677	2336532337	74917341	230813417	2642263095	0.0873540	0.1304280
SOUTH CENTRAL BELL-KENTUCKY	85	821720	95317798	102464077	15945514247	1002816814	1537243891	18485574952	0.0831640	0.2046710
SOUTH CENTRAL BELL-LOUISIANA	85	1734726	258979313	205530580	32421144885	2829102698	3119749834	38369997417	0.0813370	0.2022680
SOUTH CENTRAL BELL-MISSISSIPPI	85	825720	131150582	124078523	14861843880	1362306880	1784016584	18008167344	0.0990700	0.2492190
GTE SOUTH-TENNESSEE	85	46873	18956162	9768188	726300300	108104566	96492848	930897714	0.1149164	0.2334982
UNITED INTER-MOUNTAIN TELEPHONE-T	85	147955	18529847	15300709	2353249543	231247045	265936826	2850433414	0.0932970	0.2192200
SOUTH CENTRAL BELL-TENNESSEE	85	1671306	193422923	238907824	32352779923	2119041699	3797088122	38268909744	0.0992330	0.2236190
GTE NORTH-OHIO	85	575766	275901117	88167551	8958896656	1582672520	839254452	11380823648	0.0682514	0.2257525
UNITED TELEPHONE CO OF OHIO	85	380160	89415017	34501807	4455340334	913584097	531338441	5900262872	0.0900530	0.2167910
CINCINNATI BELL-OHIO	85	584561	37161591	76089484	11803632596	466683327	1300997701	13571313624	0.0958640	0.1972790
OHIO BELL	85	2955151	360996989	314472135	53487808786	4176103009	4978086170	62641997965	0.0801170	0.1971690
GTE NORTH-MICHIGAN	85	467891	197463462	48650113	5924288320	1644981004	584017832	8153287136	0.0694869	0.1920396
MICHIGAN BELL	85	3818338	752644645	335443583	57219829995	8790932022	5507136314	71517898331	0.0775740	0.1724770
GTE NORTH-INDIANA	85	576121	185960029	130898115	8264047312	1041596156	1166171278	10471814736	0.1060527	0.3182138
UNITED TELEPHONE CO OF INDIANA	85	0	35848197	16462292	1433315464	356011559	226266281	2015593304	0.1122580	0.0000000
INDIANA BELL	85	1440453	164238562	181708407	23543409468	1811029176	2837176100	28191614744	0.1007670	0.2354930
GTE NORTH-WISCONSIN	85	276016	107904398	36262342	3626016712	853477158	505128465	4984622336	0.0991177	0.2611172
WISCONSIN BELL	85	1517472	194759442	165997956	21486759690	2000573510	2489555981	25976889181	0.0959310	0.2201160
GTE NORTH-ILLINOIS	85	520810	200389841	66612273	6958487696	1911416512	843236408	9713140624	0.0850016	0.2570303
ILLINOIS BELL	85	4717658	349013103	657197172	80018383621	3585203904	9669295431	93272882956	0.1037770	0.2701450
GTE NORTH-IOWA	85	107217	11278217	3540116	1044938358	337298672	162148345	1544385375	0.1031193	0.2856083

TABLE 4.6

NETWORK USAGE DATA FOR 1985 (MESSAGES & SLU-PAGE 2)

CARRIER	YEAR	NO. LOOPS	ST MSGS	IS MSGS	LOC SLU	ST SLU	IS SLU	TOT SLU	IS SLU F	IS SPF F
NORTHWESTERN BELL-IOWA	85	853665	133276187	156048499	11001118604	1412151008	2053866607	14467136219	0.1419680	0.2848800
GTE NORTH-MINNESOTA	85	3404	0	0	28678555	10110849	5116246	43905650	0.1147207	0.2604288
NORTHWESTERN BELL-MINNESOTA	85	1594600	149535939	211927312	24293079399	1686418758	3201145444	29180643601	0.1097010	0.2707280
GTE NORTH-NEBRASKA	85	44327	6768328	2844040	478328008	127571693	66910520	672810221	0.1001201	0.2718021
LINCOLN TELEPHONE & TELEGRAPH	85	208760	35678649	24288880	2278542542	357440068	317462589	2953445199	0.1074890	0.3166660
NORTHWESTERN BELL-NEBRASKA	85	422022	47089290	74645285	6222227438	496014047	1148948162	7867189647	0.1460430	0.3783570
NORTHWESTERN BELL-NORTH DAKOTA	85	240963	37328960	38255462	2928213589	400722732	507247121	3836183442	0.1322270	0.3241420
NORTHWESTERN BELL-SOUTH DAKOTA	85	234386	36777946	39487655	2611484334	382304242	514460816	3508249392	0.1466430	0.3620050
GTE SOUTHWEST-ARKANSAS	85	57967	22228163	9905773	945072166	166981713	127894040	1239947919	0.1056503	0.2896247
SOUTHWESTERN BELL-ARKANSAS	85	610086	108504955	109354151	9648154896	1120307068	1438909563	12207371527	0.1178720	0.2855050
SOUTHWESTERN BELL-KANSAS	85	920983	129670995	134437842	13082684943	1448934567	1946867818	16478487328	0.1181460	0.3000520
GTE NORTH-MISSOURI	85	95785	13649587	6455335	1135561322	276193690	185595474	1597350486	0.1134963	0.3115398
SOUTHWESTERN BELL-MISSOURI	85	1764890	174165873	249773763	31892612799	1858455335	4094676243	37845744377	0.1081940	0.2709230
GTE SOUTHWEST-OKLAHOMA	85	97641	35407287	17499642	1358900986	322615790	212837470	1894354246	0.1107079	0.3302495
SOUTHWESTERN BELL-OKLAHOMA	85	1222045	210380017	151267128	17166135123	2344976141	2469684031	21980795295	0.1123560	0.3222830
GTE SOUTHWEST-TEXAS	85	995859	334290400	132224365	15179702865	3071432538	1561819525	19812954928	0.0774306	0.2506221
CONTEL OF TEXAS	85	141517	47379421	5353913	1118527079	537165903	156630431	1812323413	0.0864250	0.2194330
SOUTHWESTERN BELL-TEXAS	85	5825224	887735064	619266445	102656896677	11856268400	10688564369	125201729446	0.0853710	0.2347480
MOUNTAIN BELL-ARIZONA	85	1360252	101981427	205800003	20610316051	1279568983	3608881057	25498766091	0.1415320	0.4364070
MOUNTAIN BELL-COLORADO	85	1546810	165182529	247311403	22788790280	1910357889	4188053814	28887201983	0.1449800	0.4297840
GTE NORTHWEST-IDAHO	85	65929	11344394	14836933	620684822	107166163	195221536	923072533	0.2112568	0.5731416
MOUNTAIN BELL-IDAHO	85	293097	49352422	49451223	3498350418	518941004	742939008	4760230430	0.1560720	0.3534890
PACIFIC NW BELL-IDAHO	85	21572	3140132	4132301	297307296	35834618	53190641	386332555	0.1376810	0.3786630
GTE NORTHWEST-MONTANA	85	5667	0	0	61261227	9055690	13171359	83488276	0.1662636	0.4648089
MOUNTAIN BELL-MONTANA	85	286666	51389561	42265807	2972324013	583106881	624064559	4179495453	0.1493160	0.4450290
GTE SOUTHWEST-NEW MEXICO	85	97641	12439771	15971380	516598132	76162449	119090604	711851185	0.1664832	0.4853099
MOUNTAIN BELL-NEW MEXICO	85	476721	55279306	76836074	7057674518	600070459	1190878060	8848623036	0.1345830	0.3576800
MOUNTAIN BELL-UTAH	85	610595	71762187	80037496	10051251303	792037939	1513486120	12356775362	0.1224820	0.3195360
MOUNTAIN BELL-WYOMING	85	208557	29167408	42720748	2122211160	342294428	622472522	3086978110	0.2016450	0.5670060
GTE NORTHWEST-WASHINGTON	85	441410	71753080	34669978	4768058844	852928127	599149273	6220136236	0.0975804	0.3262712
PACIFIC NW BELL-WASHINGTON	85	1573514	238751586	202895760	19842731559	2821724406	3157910516	25822366481	0.1222940	0.3024310
GTE NORTHWEST-OREGON	85	236542	37012321	25629223	2813971600	402926285	384425356	3601323244	0.1049370	0.3916577
PACIFIC NW BELL-OREGON	85	894668	144830828	133779734	10651495521	1468563412	2225804668	14345863601	0.1551530	0.3276170
CONTEL OF CALIFORNIA	85	223222	63236211	8166145	1762636871	768577430	219019767	2750234068	0.0796370	0.2537000
GTE OF CALIFORNIA	85	2859284	0	0	31876280512	8865220512	2961701746	43703202720	0.0700018	0.2489154
GTE NORTHWEST-CALIFORNIA	85	8114	1187734	719317	66058804	17705334	12065621	95829759	0.1268665	0.3979992
PACIFIC BELL	85	12021579	3559773660	973619929	144801815965	35162679393	16381192149	196345687507	0.0834300	0.2495810
CENTEL-NEVADA	85	354016	4981825	66400103	3729752831	56958698	873280573	4659992102	0.1874000	0.5886320
NEVADA BELL	85	172028	12726458	38460969	1906815154	141031517	570528402	2618375073	0.2178940	0.6263700
DIAMOND STATE TELEPHONE	85	333039	16850276	71877615	4379184869	278425643	1025247747	5682858259	0.1804110	0.3451510
C&P OF WASHINGTON D.C.	85	779689	0	132735815	12681613237	0	3006848556	15688461793	0.1916600	0.4376190
NEW ENGLAND TELEPHONE-RHODE ISLAN	85	465920	48098662	92404819	6765418615	404454490	1159393244	8329266349	0.1391950	0.2867910
GTE HAWAIIAN TELCO	85	497752	47854018	61025361	7956394480	301806458	743960477	9002161432	0.0829169	0.2885196

TABLE 4.7

NETWORK USAGE DATA FOR 1986 (MESSAGES & SLU-PAGE 2)

CARRIER	YEAR	NO. LOOPS	ST MSGS	IS MSGS	LOC SLU	ST SLU	IS SLU	TOT SLU	IS SLU F	IS SPF F
NEW ENGLAND TELEPHONE-MAINE	86	486965	104857748	65048552	4952286456	837759278	842509036	6632554770	0.1270260	0.2986700
NEW ENGLAND TELEPHONE-MASSACHUSET	86	3259555	761834337	554263224	43012985286	5667561996	6938793535	55619340817	0.1247550	0.2794090
NEW ENGLAND TELEPHONE-NEW HAMPSHI	86	511442	106295005	126905029	5020097857	834399743	1520071148	7374568748	0.2061230	0.4299240
SOUTHERN NEW ENGLAND TELEPHONE	86	1890569	425498929	347037196	22952746416	4319472695	5471189550	32743408661	0.1514600	0.3276950
NEW ENGLAND TELEPHONE-VERMONT	86	230847	42715495	50142304	2296468382	364364944	578436646	3239269972	0.1785700	0.4394470
CONTEL OF NEW YORK	86	200465	55842449	11316138	1816247994	695176267	290770970	2802195231	0.1038000	0.2313000
ROCHESTER TELEPHONE CORPORATION	86	412440	30607713	41005338	5980999827	617081244	617566177	7215647248	0.0855870	0.2217030
NEW YORK TELEPHONE	86	8865030	603610125	1409296314	144528735448	7343544254	21857170619	173729450321	0.1258340	0.2782860
NEW JERSEY BELL	86	4250148	1761152000	1067097000	45796000000	16319222000	11521702000	73636924000	0.1564660	0.3099950
GTE NORTH-PENNSYLVANIA	86	391362	123079550	73729007	5419643961	663700996	545857693	6629202650	0.0806833	0.2214737
UNITED TELEPHONE CO OF PA	86	255213	66589723	29088302	2618310589	664469142	328404700	3611184431	0.0909410	0.2235230
BELL OF PENNSYLVANIA	86	4603038	729351877	601774199	70331697793	7149099784	8613980547	86094778124	0.1000520	0.2195080
C&P OF MARYLAND	86	2408000	163914863	294424222	41880385116	1671253143	4738454541	48290092800	0.0981250	0.2186370
CONTEL OF VIRGINIA	86	263512	57477750	22057416	3256535250	783719918	718539214	4758794382	0.1509920	0.3154410
GTE SOUTH-VIRGINIA	86	28967	9414269	8198975	449466523	50840977	48805908	549113408	0.0862461	0.2004507
UNITED INTER-MOUNTAIN TELEPHONE-V	86	0	9461320	9272508	970858513	113043822	129441436	1213343771	0.1066820	0.2175060
C&P OF VIRGINIA	86	2191785	220831767	305936470	35823722080	2543779628	4465613935	42833115643	0.1042560	0.2668690
GTE SOUTH-WEST VIRGINIA	86	61346	16008356	15872928	784195809	102883541	139214834	1026294184	0.1603848	0.2932944
C&P OF WEST VIRGINIA	86	627895	89334915	80727958	10259218753	946924275	1104205594	12310348622	0.0896970	0.2195210
GTE OF FLORIDA	86	1527809	418634925	316938958	16479555748	2279783766	2979781291	21739120805	0.1223497	0.4354267
CENTEL OF FLORIDA	86	202589	28284784	25614028	2265428155	383538796	456500987	3105467938	0.1469670	0.3404860
UNITED TELEPHONE CO OF FLORIDA	86	788130	119650154	81782725	7581920948	1259668552	1495039500	10336629000	0.1446350	0.4700460
SOUTHERN BELL-FLORIDA	86	3670545	565898464	550135239	52769240692	6595866654	9107733775	68472841121	0.1330810	0.3499750
GTE SOUTH-GEORGIA	86	186615	55092956	31203652	2349948102	418411699	243595620	3011955421	0.0774862	0.2170137
SOUTHERN BELL-GEORGIA	86	2298014	278210811	427937566	43956605448	2929350835	5987591219	52873547502	0.1332700	0.2841920
CAROLINA TELEPHONE & TELEGRAPH	86	687094	144500940	80716901	8988269194	1342598598	1235204162	11566071954	0.1067950	0.2451310
GTE SOUTH-NORTH CAROLINA	86	133437	50007833	37078143	1657849293	247957081	251343604	2157149978	0.0988240	0.3102001
SOUTHERN BELL-NORTH CAROLINA	86	1395867	209257820	214722010	23546029579	2928584620	3006377970	29480992169	0.1020000	0.2448450
GTE SOUTH-SOUTH CAROLINA	86	129981	36113675	37487820	1558435939	227313210	275152809	2060901958	0.1559102	0.3291139
SOUTHERN BELL-SOUTH CAROLINA	86	919735	109816774	135005119	17718277588	1268894720	2087018881	21074191189	0.0990490	0.2243640
GTE SOUTH-ALABAMA	86	113686	32870404	26533173	1414697279	190250021	209478195	1814425445	0.1171600	0.3122872
SOUTH CENTRAL BELL-ALABAMA	86	1270177	159519620	179860966	25966980275	1726167389	2801719044	30494866708	0.0919280	0.2131000
GTE SOUTH-KENTUCKY	86	299012	85885537	74717846	4270038041	450358988	499406048	5219803077	0.0871423	0.2536613
CINCINNATI BELL-KENTUCKY	86	124467	5320980	13600264	2326071158	75169169	234073615	2635313942	0.0888220	0.1453750
SOUTH CENTRAL BELL-KENTUCKY	86	817517	97629242	108866823	15159805998	1080110986	1706693057	17946610041	0.0951270	0.2103370
SOUTH CENTRAL BELL-LOUISIANA	86	1673456	255431381	209333734	31905656250	2658640606	3206196810	37770493666	0.0849460	0.2082350
SOUTH CENTRAL BELL-MISSISSIPPI	86	826170	136405474	134507329	14787182781	1416954379	1993211276	18197348436	0.1095740	0.2493170
GTE SOUTH-TENNESSEE	86	47381	17402194	10329048	609730232	84697403	72144107	766571742	0.0975295	0.2334982
UNITED INTER-MOUNTAIN TELEPHONE-T	86	150754	22083913	17912686	2459811211	259818438	270639971	2990269620	0.0905070	0.2230680
SOUTH CENTRAL BELL-TENNESSEE	86	1666546	209330858	253490399	33664862551	2291955280	4160489397	40117307228	0.1037570	0.2269170
GTE NORTH-OHIO	86	606278	239329322	81436728	7506384272	1344470320	774295759	9625150351	0.0795616	0.2257525
UNITED TELEPHONE CO OF OHIO	86	396783	93860932	38061618	4684379847	893080290	496346705	6073806842	0.0817190	0.2209420
CINCINNATI BELL-OHIO	86	584667	39717457	83192059	11792093308	483161524	1402628987	13677883819	0.1025470	0.2038690
OHIO BELL	86	2943631	354890771	328420233	50410050856	4394278798	5984248140	60788577794	0.0986290	0.1971690
GTE NORTH-MICHIGAN	86	477677	224724860	56517483	4757796250	1409095947	533553319	6700445516	0.0822489	0.1920396
MICHIGAN BELL	86	3819575	752644645	335443583	58186528396	9317827678	6271950418	73776306492	0.0851050	0.1724770
GTE NORTH-INDIANA	86	584444	156363144	102774518	6946289296	875040610	1035749823	8857079729	0.1094758	0.3182138
UNITED TELEPHONE CO OF INDIANA	86	0	38153479	18134937	1481146328	357785840	210487151	2049419319	0.1027060	0.0000000
INDIANA BELL	86	1433035	164238562	181708407	23483219682	1887190020	2943954093	28314363795	0.1040810	0.2354930
GTE NORTH-WISCONSIN	86	276907	95670512	25174956	2943002395	720149497	413155656	4076307548	0.1009715	0.2611172
WISCONSIN BELL	86	1517484	190693896	169524520	21678188520	2088065864	2806560368	26572814752	0.1057520	0.2201160
GTE NORTH-ILLINOIS	86	521167	210900267	69639125	5318964134	1582319695	689865390	7591149219	0.0895127	0.2570303
ILLINOIS BELL	86	4682082	358861442	688646098	79497514668	3753737090	10395166122	93646417880	0.1111080	0.2701450
GTE NORTH-IOWA	86	104259	9330024	3270658	815589263	272225930	132387229	1220202422	0.1040351	0.2856083

TABLE 4.7

NETWORK USAGE DATA FOR 1986 (MESSAGES & SLU-PAGE 2)

CARRIER	YEAR	NO. LOOPS	ST MSGS	IS MSGS	LOC SLU	ST SLU	IS SLU	TOT SLU	IS SLU F	IS SPF F
NORTHWESTERN BELL-IOWA	86	847150	148487296	132317934	11087956972	1473873091	2178722201	14740552264	0.1478050	0.2805200
GTE NORTH-MINNESOTA	86	3404	0	0	21836517	8345969	4084217	34266703	0.1142079	0.2604288
NORTHWESTERN BELL-MINNESOTA	86	1609810	228089670	154158939	24737983902	1782560187	3540221952	30060768041	0.1177690	0.2681370
GTE NORTH-NEBRASKA	86	43425	4373632	2048621	370107326	100619022	55290203	526016551	0.1037888	0.2715326
LINCOLN TELEPHONE & TELEGRAPH	86	208484	36856814	24336275	2277149168	356329905	354920764	2988399837	0.1187670	0.3083330
NORTHWESTERN BELL-NEBRASKA	86	419122	78326782	46364505	6166857737	507088414	1280981787	7954927937	0.1610300	0.3623120
NORTHWESTERN BELL-NORTH DAKOTA	86	240827	38306551	36491884	2822722464	394522804	529080332	3746325600	0.1412260	0.3148740
NORTHWESTERN BELL-SOUTH DAKOTA	86	237224	42027938	35904220	2606229739	384748231	595616934	3586593904	0.1660680	0.3480040
GTE SOUTHWEST-ARKANSAS	86	58642	18398864	8817969	743843660	131652121	104096087	979591868	0.1079146	0.2896247
SOUTHWESTERN BELL-ARKANSAS	86	634597	114382655	117327554	9754987001	1174115401	1536775673	12456924876	0.1233670	0.2810670
SOUTHWESTERN BELL-KANSAS	86	957934	128482603	141285250	13101979651	1476193049	2149890958	16761863658	0.1285200	0.2937960
GTE NORTH-MISSOURI	86	96279	12504517	6476102	911084500	235637390	175543548	1322265438	0.1248256	0.3115398
SOUTHWESTERN BELL-MISSOURI	86	1794176	184053728	260665234	32596184474	2007137103	4433984561	39037306138	0.1135830	0.2683080
GTE SOUTHWEST-OKLAHOMA	86	96257	30687567	18652889	1068402209	249196007	183601710	1501199926	0.1201397	0.3302495
SOUTHWESTERN BELL-NORTH OKLAHOMA	86	1235158	204892841	154653542	16928803760	2290168640	2531261714	21750234114	0.1163790	0.3132480
GTE SOUTHWEST-TEXAS	86	1026666	371535983	148275751	12281719268	2516229823	1427087091	16225036182	0.0819758	0.2506221
CONTEL OF TEXAS	86	149773	51220646	5944724	1172857251	551547682	153799779	1878204712	0.0818870	0.2232300
SOUTHWESTERN BELL-TEXAS	86	6107770	870312457	625844429	104580091414	12105450498	11097227020	127782768932	0.0868440	0.2366550
MOUNTAIN BELL-ARIZONA	86	1470491	218279127	108918763	22294887760	1355752399	4047658635	27698288794	0.1461340	0.4131060
MOUNTAIN BELL-COLORADO	86	1654412	253741651	168147328	22840184119	2049181615	4724356178	29613721912	0.1595330	0.4073110
GTE NORTHWEST-IDAHO	86	64221	11574561	15717300	615496859	109302011	195335123	920133993	0.2243736	0.5731416
MOUNTAIN BELL-IDAHO	86	308059	53221579	48399665	3468345443	515939497	781545921	4765830861	0.1639890	0.3405530
PACIFIC NW BELL-IDAHO	86	21205	4261086	3175681	284525948	36580062	56646462	377752473	0.1499570	0.3625800
GTE NORTHWEST-MONTANA	86	5822	0	0	59628822	9359048	13423664	82411534	0.1688667	0.4648089
MOUNTAIN BELL-MONTANA	86	296856	44935619	52886984	2978324013	616391136	645865644	4304464849	0.1500460	0.4206500
GTE SOUTHWEST-NEW MEXICO	86	96257	8923747	11421026	419374974	51491338	84200817	555067129	0.1512057	0.4853099
MOUNTAIN BELL-NEW MEXICO	86	503433	83967656	58426607	7407234258	670198379	1319899301	9397331938	0.1404550	0.3442200
MOUNTAIN BELL-UTAH	86	632886	89083162	75253582	10221463803	850832094	1640364539	12712660436	0.1290340	0.3108440
MOUNTAIN BELL-WYOMING	86	216941	43126027	28163356	2062850537	336195287	630117273	3029163097	0.2080170	0.5273800
GTE NORTHWEST-WASHINGTON	86	442181	78862054	39570425	5169924306	924879202	643730236	6738533744	0.0916770	0.3262712
PACIFIC NW BELL-WASHINGTON	86	1580824	138651319	253875274	21168721361	2705882310	3391039892	27265643563	0.1243700	0.2958770
GTE NORTHWEST-OREGON	86	242152	39478353	28720243	2843639381	420945081	447148664	3711733126	0.1035705	0.3916577
PACIFIC NW BELL-OREGON	86	878716	204083210	151754379	10895482317	1560902673	2092636947	14549021937	0.1438340	0.3179150
CONTEL OF CALIFORNIA	86	242714	69498549	9390651	1834248036	833960053	248640814	2916848903	0.0852430	0.2532000
GTE OF CALIFORNIA	86	2987491	0	0	32505060841	9845736596	3543810254	45894607673	0.0817017	0.2489154
GTE NORTHWEST-CALIFORNIA	86	8664	1425325	854274	65634425	18381247	11348599	95364271	0.1169835	0.3979992
PACIFIC BELL	86	12239340	3885138304	1067457231	145424192689	36972950766	16392151296	198789294751	0.0824600	0.2496330
CENTEL-NEVADA	86	326396	5818471	84666927	3878229060	71447973	1238526820	5188203853	0.2387200	0.5463030
NEVADA BELL	86	179918	12716379	30616795	1955836939	158559995	540490841	2654887775	0.2035830	0.5793240
DIAMOND STATE TELEPHONE	86	346157	19305096	80961611	4674728660	193396447	1056766932	5924892039	0.1783610	0.3332570
C&P OF WASHINGTON D.C.	86	768260	0	122613151	12868234622	0	2890773317	15759007939	0.1834360	0.4141670
NEW ENGLAND TELEPHONE-RHODE ISLAN	86	482269	50646695	98299555	6651566178	437476480	1130628022	8219670680	0.1375510	0.2867910
GTE HAWAIIAN TELCO	86	525278	40083501	48216012	7832732876	328028615	861247446	9022008929	0.0903861	0.2885196

TABLE 4.8

NETWORK DATA USAGE FOR 1985 (DEM-PAGE 3)

CARRIER	YEAR	LOC DEM	st dem	is dem	tot dem	is dem f	w dem f
NEW ENGLAND TELEPHONE-MAINE	85	4792715034	916369384	897070478	6606154896	0.1357930	0.1943630
NEW ENGLAND TELEPHONE-MASSACHUSETTS	85	43612280589	5973707713	7551389246	57137377548	0.1321620	0.1565250
NEW ENGLAND TELEPHONE-NEW HAMPSHIRE	85	4976892187	787635920	1566428510	7330956617	0.2136730	0.2654100
SOUTHERN NEW ENGLAND TELEPHONE	85	21594732775	3307838342	5062051758	29964622875	0.1689340	0.1936310
NEW ENGLAND TELEPHONE-VERMONT	85	2319250186	356835056	631968225	3308053467	0.1910390	0.2692080
CONTEL OF NEW YORK	85	1763442719	633221906	254046413	2650711038	0.0958000	0.1398000
ROCHESTER TELEPHONE CORPORATION	85	5877675809	805967417	623783778	7307427004	0.0759210	9.9999999
NEW YORK TELEPHONE	85	143167334312	6653035773	22079789797	171900160086	0.1284620	0.1439320
NEW JERSEY BELL	85	46150813000	15230936000	13143557000	74525306000	0.1763640	0.1950000
GTE NORTH-PENNSYLVANIA	85	5187714665	1140593181	864739964	7193047810	0.0000000	0.0954093
UNITED TELEPHONE CO OF PA	85	2587573478	623370627	330012497	3540956602	0.0931990	0.1257880
BELL OF PENNSYLVANIA	85	66363106236	9635335047	10509561591	86508002874	0.1214870	0.1399430
C&P OF MARYLAND	85	40546858458	1590470620	4748720743	46886049821	0.1012820	0.1286750
CONTEL OF VIRGINIA	85	3057223201	771324278	604008698	4432556177	0.1362660	0.1803700
GTE SOUTH-VIRGINIA	85	444732860	97481471	95355630	637569961	0.0000000	0.1583234
UNITED INTER-MOUNTAIN TELEPHONE-VA	85	963561713	112840723	124286465	1200688901	0.1035130	0.1627180
C&P OF VIRGINIA	85	34263443039	2698694095	4694222502	41656359636	0.1126890	0.1295600
GTE SOUTH-WEST VIRGINIA	85	787037783	194606282	248129458	1229773523	0.0000000	0.2078728
C&P OF WEST VIRGINIA	85	10301470920	1127165998	1178907509	12607544427	0.0935080	0.1305010
GTE OF FLORIDA	85	15544596365	2931837971	3641051995	22117486331	0.0000000	0.1646232
CENTEL OF FLORIDA	85	2132763886	308833507	351459173	2793056566	0.1257927	1.7000000
UNITED TELEPHONE CO OF FLORIDA	85	6980705012	1389793201	1388248254	9758746468	0.1422570	0.1832840
SOUTHERN BELL-FLORIDA	85	52286249382	6239151821	8395684788	66921085991	0.1254560	0.1419590
GTE SOUTH-GEORGIA	85	2259440985	732468702	429777393	329887080	0.0000000	0.1332136
SOUTHERN BELL-GEORGIA	85	43161140764	3108950819	5635108202	51905199785	0.1085650	0.1240550
CAROLINA TELEPHONE & TELEGRAPH	85	8814109614	1347740514	1161454434	11323304562	0.1025720	0.1437560
GTE SOUTH-NORTH CAROLINA	85	1791188009	388922737	477794192	2657904938	0.0000000	0.1797634
SOUTHERN BELL-NORTH CAROLINA	85	22590385658	2736775808	2756472619	28083633985	0.0981520	0.1196070
GTE SOUTH-SOUTH CAROLINA	85	1527892941	400932962	452159028	2380984931	0.0000000	0.2104983
SOUTHERN BELL-SOUTH CAROLINA	85	17245819245	1285103741	1734011538	20264934524	0.0855670	0.1114040
GTE SOUTH-ALABAMA	85	1402467521	360301265	386777033	2149545819	0.0000000	0.1899268
SOUTH CENTRAL BELL-ALABAMA	85	25131671761	1684131637	2829011557	29644814955	0.0954300	0.1152690
GTE SOUTH-KENTUCKY	85	4179282122	675859596	820656734	5675798452	0.0000000	0.1689745
CINCINNATI BELL-KENTUCKY	85	2336532337	76077043	234271376	2646880756	0.0885080	0.1054470
SOUTH CENTRAL BELL-KENTUCKY	85	15945514247	1064132254	1715258565	18724905066	0.0916030	0.1171690
SOUTH CENTRAL BELL-LOUISIANA	85	32421144885	3194533104	3604592930	39220270919	0.0919060	0.1100230
SOUTH CENTRAL BELL-MISSISSIPPI	85	14861843880	1465414825	1939545304	18266804009	0.1061790	0.1432710
GTE SOUTH-TENNESSEE	85	588801792	162697190	138820512	890319494	0.0000000	0.1870856
UNITED INTER-MOUNTAIN TELEPHONE-TN	85	2353249543	275292325	273800300	2902342168	0.0943380	0.1351720
SOUTH CENTRAL BELL-TENNESSEE	85	32352779923	2327187645	4357912257	39037879825	0.1116330	0.1296280
GTE NORTH-OHIO	85	8958896660	2978266592	1572517132	13509680352	0.0000000	0.1163992
UNITED TELEPHONE CO OF OHIO	85	4450958399	950150462	560625419	5961734280	0.0940370	0.1364150
CINCINNATI BELL-OHIO	85	11803632596	537460480	1588108885	13929201961	0.1140130	0.1261090
OHIO BELL	85	53487845521	4391612103	5486146764	63365604388	0.0741890	0.1019280
GTE NORTH-MICHIGAN	85	5924288320	3268096272	1143617398	10336001952	0.0000000	0.1106440
MICHIGAN BELL	85	57219829995	9908486790	6272654834	73400971619	0.0673740	0.0984970
GTE NORTH-INDIANA	85	8264047311	1723526104	1885217908	11872791296	0.0000000	0.1587847
UNITED TELEPHONE CO OF INDIANA	85	1433315464	352279331	206149087	1991743882	0.1035020	0.1615610
INDIANA BELL	85	23543409468	1974978232	3310053700	28828441400	0.0845140	0.1340160
GTE NORTH-WISCONSIN	85	3626016712	1670148468	925964468	6222129600	0.0000000	0.1488179
WISCONSIN BELL	85	21486759690	2043956566	2953632684	26484348940	0.0807000	0.1261980
GTE NORTH-ILLINOIS	85	6958487696	2928209630	1189138245	11075835571	0.0000000	0.1073633
ILLINOIS BELL	85	80018383621	3593255437	10828073181	94439712239	0.0894670	0.1284500
GTE NORTH-IOWA	85	3671151098	1387281991	643050135	5701483224	0.0000000	0.1127864

TABLE 4.8

NETWORK DATA USAGE FOR 1985 (DEM-PAGE 3)

CARRIER	YEAR	LOC DEM	st dem	is dem	tot dem	is dem f	w dem f
NORTHWESTERN BELL-IOWA	85	11001118634	1437482566	2459894526	14898495726	0.1651100	0.1997910
GTE NORTH-MINNESOTA	85	178254687	111125808	55664726	345045221	0.0000000	0.1613258
NORTHWESTERN BELL-MINNESOTA	85	24293079399	1754455519	3746188290	29793723208	0.1257380	0.1449280
GTE NORTH-NEBRASKA	85	383749762	202486558	102495488	688731808	0.0000000	0.1488177
LINCOLN TELEPHONE & TELEGRAPH	85	2278542542	357440068	317462589	2953445199	0.1074890	0.1285590
NORTHWESTERN BELL-NEBRASKA	85	6222227438	503039238	1289614944	8014881620	0.1609030	0.1900260
NORTHWESTERN BELL-NORTH DAKOTA	85	2928213589	410185656	554212775	3892612020	0.1423760	0.1909400
NORTHWESTERN BELL-SOUTH DAKOTA	85	2611484334	387891462	533444328	3532820124	0.1509970	0.2121090
GTE SOUTHWEST-ARKANSAS	85	945072166	353459316	255786811	1554318293	0.0000000	0.1645652
SOUTHWESTERN BELL-ARKANSAS	85	9648154896	1155875134	1614308889	12418338919	0.1299940	0.1583190
SOUTHWESTERN BELL-KANSAS	85	13082684943	1531882110	2161697644	16776264697	0.1288550	0.1533840
GTE NORTH-MISSOURI	85	913082158	421218219	271263227	1605563604	0.0000000	0.1689523
SOUTHWESTERN BELL-MISSOURI	85	31892612799	1955039826	4899109326	38746761951	0.1264390	0.1409850
GTE SOUTHWEST-OKLAHOMA	85	1358900986	658830041	368847538	2386378565	0.0000000	0.1545637
SOUTHWESTERN BELL-OKLAHOMA	85	17166135123	2425954806	2819327687	22411417616	0.1257990	0.1481050
GTE SOUTHWEST-TEXAS	85	15134036097	5353650235	2312966969	22800653301	0.0000000	0.1014430
CONTEL OF TEXAS	85	1118527079	542341674	164690338	1825559091	0.0902140	0.1193810
SOUTHWESTERN BELL-TEXAS	85	102656896677	14184440117	12694672767	129536009561	0.0980010	0.1079570
MOUNTAIN BELL-ARIZONA	85	20610316051	1455272075	4105610375	26171198501	0.1568750	0.1765480
MOUNTAIN BELL-COLORADO	85	22788790280	2178512642	4761212851	29728515773	0.1601560	0.1849360
GTE NORTHWEST-IDAHO	85	620684822	203553325	365927030	1190165189	0.0000000	0.3074590
MOUNTAIN BELL-IDAHO	85	3498350418	550562132	831982838	4880895388	0.1704570	0.2082300
PACIFIC NM BELL-IDAHO	85	297307296	35834618	53190651	386332555	0.1376810	0.1896100
GTE NORTHWEST-MONTANA	85	61261227	20049076	29028837	110339140	0.0000000	0.2630874
MOUNTAIN BELL-MONTANA	85	2978324013	583396298	681303221	4243023532	0.1605700	0.2184550
GTE SOUTHWEST-NEW MEXICO	85	516598132	120790170	189266048	826654650	0.0000000	0.2289541
MOUNTAIN BELL-NEW MEXICO	85	7057674518	622241201	1343613026	9023528744	0.1489010	0.1848600
MOUNTAIN BELL-UTAH	85	10051251303	859762433	1825404935	12736418671	0.1433220	0.1632940
MOUNTAIN BELL-WYOMING	85	2122211160	366884807	673430815	3162526782	0.2129410	0.2774000
GTE NORTHWEST-WASHINGTON	85	4768058844	1264439086	846592485	6879090388	0.0000000	0.1230675
PACIFIC NM BELL-WASHINGTON	85	19842731559	3300165340	3698903076	26841799975	0.1378040	0.1555370
GTE NORTHWEST-OREGON	85	2813971600	616627196	543104342	3973703140	0.0000000	0.1366746
PACIFIC NM BELL-OREGON	85	10651495521	1545506452	2839644672	15036646645	0.1888480	0.2062860
CONTEL OF CALIFORNIA	85	1762636871	769786278	221759949	2754183098	0.0805180	0.1144110
GTE OF CALIFORNIA	85	31876280512	12227424144	4046866048	48150570704	0.0000000	0.0840460
GTE NORTHWEST-CALIFORNIA	85	66891980	33597061	22278849	122767890	0.0000000	0.1814713
PACIFIC BELL	85	144801815695	36590159645	19495439808	200887415148	0.0970470	0.1087650
CENTEL-NEVADA	85	3729752831	70167952	1137211479	4937132262	0.2303380	1.3000000
NEVADA BELL	85	1906888327	146620877	627573260	2681082464	0.2340750	0.2486310
DIAMOND STATE TELEPHONE	85	4379184869	380752742	1100698330	5860635941	0.1878120	0.2220740
C&P OF WASHINGTON D.C.	85	12616116741	0	333665868	15952482609	0.2091440	0.2277950
NEW ENGLAND TELEPHONE-RHODE ISLAND	85	6765418615	404467150	1252675269	8422561034	0.1487290	0.1850110
GTE HAWAIIAN TELCO	85	7956394480	486791915	1111359758	9554546153	0.0000000	0.1163173

TABLE 4.9

NETWORK DATA USAGE FOR 1986 (DEM-PAGE 3)

CARRIER	YEAR	LOC DEM	st dem	is dem	tot dem	is dem f	w dem f
NEW ENGLAND TELEPHONE--MAINE	86	4952286456	949327158	1036953581	6938567195	0.1494480	0.2023810
NEW ENGLAND TELEPHONE--MASSACHUSETTS	86	43012791061	6842890752	8415413814	58271095627	0.1444180	0.1592570
NEW ENGLAND TELEPHONE--NEW HAMPSHIRE	86	5020097857	942367180	1876837470	7839302507	0.2394140	0.2982320
SOUTHERN NEW ENGLAND TELEPHONE	86	23300305902	3641306009	5517895507	32459507418	0.1698050	0.1931190
NEW ENGLAND TELEPHONE--VERMONT	86	2296468382	405331408	715031653	3416831443	0.2092670	0.3127000
CONTEL OF NEW YORK	86	1816099809	695176267	290770970	2802047046	0.1038000	0.1463000
ROCHESTER TELEPHONE CORPORATION	86	5738413286	865322970	758172121	7361908337	0.0855870	9.9999999
NEW YORK TELEPHONE	86	144618735453	7637547984	24005266984	176261549521	0.1361900	0.1542370
NEW JERSEY BELL	86	45781592000	16891133000	13356233000	76028958000	0.1756730	0.1960000
GTE NORTH--PENNSYLVANIA	86	5419643961	1237375554	984797384	7641816899	0.0000000	0.1288685
UNITED TELEPHONE CO OF PA	86	2618310589	693363590	363439999	3675114178	0.0988920	0.1356590
BELL OF PENNSYLVANIA	86	70331697793	7752117935	10175409622	88259225350	0.1152900	0.1362490
C&P OF MARYLAND	86	41880385116	1779044709	5439026716	49098456541	0.1107780	0.1441800
CONTEL OF VIRGINIA	86	3256535250	789435600	729319550	4775290400	0.1527280	0.1908090
GTE SOUTH--VIRGINIA	86	449466523	104087545	101624568	655178636	0.0000000	0.1551097
UNITED INTER-MOUNTAIN TELEPHONE--VA	86	970858513	119263670	133156089	1223278272	0.1088520	0.1712240
C&P OF VIRGINIA	86	35566170908	2766194405	5058578689	43390944002	0.1165810	0.1321800
GTE SOUTH--WEST VIRGINIA	86	784195809	208642485	273904008	1266742302	0.0000000	0.2162270
C&P OF WEST VIRGINIA	86	10259218753	1078878160	1261390425	12599487338	0.1001140	0.1370740
GTE OF FLORIDA	86	16479555748	3332503508	4217971979	24030031235	0.0000000	0.1755291
CENTEL OF FLORIDA	86	24430224792	387772668	432684633	25250681993	0.1323372	1.7000000
UNITED TELEPHONE CO OF FLORIDA	86	7581920948	1450702086	1611911795	10644534829	0.1514310	0.1935100
SOUTHERN BELL--FLORIDA	86	52769240692	7643551332	9713552360	70126344384	0.1385150	0.1528200
GTE SOUTH--GEORGIA	86	2349948102	823896343	492593708	3666438153	0.0000000	0.1343521
SOUTHERN BELL--GEORGIA	86	43956605448	3110201376	6350719356	53417526180	0.1188880	0.1533540
CAROLINA TELEPHONE & TELEGRAPH	86	8988269194	1479775165	1338641749	11806686108	0.1133800	0.1560280
GTE SOUTH--NORTH CAROLINA	86	1657849293	402964944	482192173	2543006410	0.0000000	0.1896150
SOUTHERN BELL--NORTH CAROLINA	86	23546029579	3083320052	3189764461	29819114092	0.1069700	0.1268430
GTE SOUTH--SOUTH CAROLINA	86	1558435939	437387840	539360068	2535183847	0.0000000	0.2127498
SOUTHERN BELL--SOUTH CAROLINA	86	17718277588	1369599347	2291693870	21379570805	0.1071910	0.1314300
GTE SOUTH--ALABAMA	86	1413386924	376724263	423621902	2213733089	0.0000000	0.1913608
SOUTH CENTRAL BELL--ALABAMA	86	25932480806	1826712900	3104312222	30863505928	0.1005820	0.1175380
GTE SOUTH--KENTUCKY	86	4270038041	776030119	1000375958	6046444118	0.0000000	0.1654486
CINCINNATI BELL--KENTUCKY	86	2326071158	75971341	235491514	2637534013	0.0892850	0.1074120
SOUTH CENTRAL BELL--KENTUCKY	86	15159805998	1156885181	1912516533	18229207712	0.1049150	0.1300950
SOUTH CENTRAL BELL--LOUISIANA	86	31905656250	2844749408	3601946510	38352352168	0.0939170	0.1090350
SOUTH CENTRAL BELL--MISSISSIPPI	86	14787182781	1514309709	2190422128	18491914618	0.1184530	0.1533840
GTE SOUTH--TENNESSEE	86	609730232	179425285	159067997	948223514	0.0000000	0.1677536
UNITED INTER-MOUNTAIN TELEPHONE--TN	86	2459811211	309987357	291306763	3061105331	0.0951640	0.1346070
SOUTH CENTRAL BELL--TENNESSEE	86	33664862551	2490418642	4716572624	40871853817	0.1153990	0.1296180
GTE NORTH--OHIO	86	7506384272	2511506309	1432998342	11450888923	0.0000000	0.1251429
UNITED TELEPHONE CO OF OHIO	86	4682697835	986572034	581140761	6250410630	0.0929760	0.1341830
CINCINNATI BELL--OHIO	86	11792093308	529636110	1610516120	13932245538	0.1155960	0.1291240
OHIO BELL	86	50410045483	4845617717	6889190865	62144854065	0.0842160	0.1160530
GTE NORTH--MICHIGAN	86	4757796250	2713316490	1014590557	8485703297	0.0000000	0.1195647
MICHIGAN BELL	86	58186528396	10031835687	7012048955	75230413038	0.0673740	0.0989840
GTE NORTH--INDIANA	86	6946289296	1461661651	1709002717	10116953664	0.0000000	0.1689246
UNITED TELEPHONE CO OF INDIANA	86	1481146328	373763805	222994017	2077904150	0.1073170	0.1619780
INDIANA BELL	86	23483219682	2056149262	3310792113	28850161057	0.0845140	0.1264900
GTE NORTH--WISCONSIN	86	2943002395	1384847524	783211018	5111060937	0.0000000	0.1532384
WISCONSIN BELL	86	21678188520	2158411995	3204192291	27040792806	0.0863930	0.1215790
GTE NORTH--ILLINOIS	86	5318964134	3002171054	1280033230	9601168418	0.0000000	0.1333205
ILLINOIS BELL	86	79497514668	3807458763	11018013663	94322987094	0.0917400	0.1256370
GTE NORTH--IOWA	86	815589263	547304191	265962161	1628855615	0.0000000	0.1632816

TABLE 4.9

NETWORK DATA USAGE FOR 1986 (DEM-PAGE 3)

CARRIER	YEAR	LOC DEM	st dem	is dem	tot dem	is dem f	w dem f
NORTHWESTERN BELL-IOWA	86	11087956972	1517060641	2658575951	15263593564	0.1741780	0.1846800
GTE NORTH-MINNESOTA	86	21836517	18902875	9024922	49764314	0.0000000	0.1813532
NORTHWESTERN BELL-MINNESOTA	86	24737951166	1843026333	4044166717	30625144216	0.1320540	0.1440480
GTE NORTH-NEBRASKA	86	370107326	213821348	116711443	700640117	0.0000000	0.1665783
LINCOLN TELEPHONE & TELEGRAPH	86	2277149168	356329905	354920764	2988399837	0.1187670	0.1452110
NORTHWESTERN BELL-NEBRASKA	86	6166857737	517877082	1401125020	8085859838	0.1732810	0.1925190
NORTHWESTERN BELL-NORTH DAKOTA	86	2822722464	402090321	580483189	3805295974	0.1525460	0.1939520
NORTHWESTERN BELL-SOUTH DAKOTA	86	2606228739	395958569	678831263	3681018571	0.1844140	0.2243560
GTE SOUTHWEST-ARKANSAS	86	743843660	285238091	226268132	1255349883	0.0000000	0.1802430
SOUTHWESTERN BELL-ARKANSAS	86	9754987001	1198873801	1710686046	12664546848	0.1350770	0.1632680
SOUTHWESTERN BELL-KANSAS	86	13101979651	1526923396	2300591379	16929494426	0.1358930	0.1618800
GTE NORTH-MISSOURI	86	911084500	436331168	309778842	1657194510	0.0000000	0.1869296
SOUTHWESTERN BELL-MISSOURI	86	32596184474	2040330533	4959921068	39596436075	0.1252620	0.1417620
GTE SOUTHWEST-OKLAHOMA	86	1068346523	505548275	318885355	1892780153	0.0000000	0.1684745
SOUTHWESTERN BELL-OKLAHOMA	86	16928803760	2321101852	2722611189	21972516801	0.1239100	0.1478530
GTE SOUTHWEST-TEXAS	86	12281719268	4424141986	2196301693	18902162947	0.0000000	0.1161931
CONTEL OF TEXAS	86	1172857251	558422142	161097310	1892376703	0.0851300	0.1152680
SOUTHWESTERN BELL-TEXAS	86	104580091414	13925106983	12462579396	130967777793	0.0951580	0.1058430
MOUNTAIN BELL-ARIZONA	86	22182883310	1726276927	4544337607	28453497844	0.1597110	0.1799990
MOUNTAIN BELL-COLORADO	86	22840184120	2366840425	5274368533	30481393078	0.1730360	0.1975420
GTE NORTHWEST-IDAHO	86	615496859	207764523	374046173	1197307555	0.0000000	0.3124060
MOUNTAIN BELL-IDAHO	86	3468345443	554454067	834328634	4857128144	0.1717740	0.2130520
PACIFIC NW BELL-IDAHO	86	284525948	37002858	57233725	378762532	0.1511070	0.2025650
GTE NORTHWEST-MONTANA	86	59628822	20701035	29545392	109875249	0.0000000	0.2688994
MOUNTAIN BELL-MONTANA	86	3042205069	637771766	678485073	4358461908	0.1556710	0.2149500
GTE SOUTHWEST-NEW MEXICO	86	419374974	83424640	135996083	638795697	0.0000000	0.2128944
MOUNTAIN BELL-NEW MEXICO	86	7411937298	679962108	1487820671	9579720077	0.1553090	0.1900010
MOUNTAIN BELL-UTAH	86	10232334136	931975005	1805518003	12969827144	0.1392090	0.1619100
MOUNTAIN BELL-WYOMING	86	2064328222	353933743	675179728	3093441693	0.2182620	0.2840340
GTE NORTHWEST-WASHINGTON	86	5169924306	1358184897	931325425	7459434628	0.0000000	0.1248520
PACIFIC NW BELL-WASHINGTON	86	21168721361	2805147351	3706417291	27680286003	0.1339010	0.1453150
GTE NORTHWEST-OREGON	86	2843639381	651514951	659183853	4154338185	0.0000000	0.1586736
PACIFIC NW BELL-OREGON	86	10895482317	1635617973	2341106567	14872206857	0.1574150	0.1774460
CONTEL OF CALIFORNIA	86	1834248036	836928980	251433783	2922610799	0.0860310	0.1174130
GTE OF CALIFORNIA	86	32523471149	13646580849	4789179434	50959231460	0.0000000	0.0939217
GTE NORTHWEST-CALIFORNIA	86	66529369	35365165	21789822	123684356	0.0000000	0.1761728
PACIFIC BELL	86	145424192689	39944360427	19785339881	205153892997	0.0964410	0.1077850
CENTEL-NEVADA	86	3878229060	90921881	1660048642	5629199583	0.2949000	1.3000000
NEVADA BELL	86	1955836939	176915061	648129821	2780881821	0.2330660	0.2481330
DIAMOND STATE TELEPHONE	86	4674728660	202996524	1210965306	6088690490	0.1988880	0.2332650
C&P OF WASHINGTON D.C.	86	12802759306	0	3495417192	16298176498	0.2144670	0.2337660
NEW ENGLAND TELEPHONE-RHODE ISLAND	86	6651566178	453896532	1408416960	8513879670	0.1654260	0.1983960
GTE HAWAIIAN TELCO	86	7858105700	525633575	1342314283	9726053534	0.0000000	0.1380122

5. Rates and Revenues

This section contains a variety of information on telephone price indexes and rate levels. First, it describes and presents a series of price indexes maintained by the Bureau of Labor Statistics. Second, it discusses rate levels and changes in average rate levels. Third, it summarizes rate cases pending before state regulatory commissions. These cases are an important indicator of future local rate changes. We also discuss other sources of information now being developed but not available for inclusion in the report at this time.

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 monthly price indexes represent prices sampled in the middle of the month.

A. 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 5.1 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 public utilities. The price of telephone service has increased less rapidly than almost any other category when viewed over a long period of time. 1

1 For a description of the methodologies used by the BLS in calculating price indexes, see Primer and Sourcebook on Telephone Price Indexes and Rate Levels, published by the FCC in April 1987. The Primer contains, in its appendices, detailed index numbers for each of the telephone price indexes maintained by the BLS from the inception of each index through the end of 1986. In early 1987, the Bureau of Labor Statistics revised its telephone-related PPI indexes and published revised index numbers for the period back to January 1984. The BLS has also made revisions to the CPI telephone service sample. The PPI and CPI revisions are described in Local Rates Update, published by the FCC in September 1987. The revised PPI price indexes are contained in their entirety in the monitoring report issued September 1987.

Table 5.1
Annual Rate of Change For Various Price Indexes*

	1937 to 1987	1977 to 1987
CPI all goods and services	4.2%	6.5%
CPI all services	4.7	8.0
CPI telephone service	2.4	4.5
CPI major categories		
- food & beverages	**	5.9
- housing	**	7.1
- apparel & upkeep	3.3	3.5
- transportation	4.0	6.0
- medical care	5.2	8.6
- entertainment	**	5.4
- other goods & services	**	7.8
CPI public transportation	5.3	9.2
CPI piped gas	4.1	8.2
CPI electricity	2.6	6.9
CPI sewer & water maintenance	**	7.8

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

** Series not established until after 1937.

B. Recent Annual 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 in 1985 and again in 1986. The cost of telephone service fell slightly in 1987. In Table 5.2, the annual rate of change is shown for the overall CPI and the CPI for telephone services for each of the last ten years.

Table 5.2
Annual Rate of Change in Price Indexes *

	CPI: All goods & Services	CPI: Telephone Services
1978	9.0%	0.8%
1979	13.3	0.8
1980	12.4	4.5
1981	8.9	11.8
1982	3.9	7.3
1983	3.8	3.6
1984	4.0	9.2
1985	3.8	4.7
1986	1.1	2.7
1987	4.4	-1.3

* Measured from December to December.

C. Price Indexes for Local Service:

The Bureau of Labor Statistics publishes a number of price indexes related to local telephone service, two of which are important to the monitoring program. The CPI index of local telephone charges is based on a broadly defined "market basket" of local services that includes monthly service charges, message unit charges, equipment, installation, additional services (such as Touch-Tone and Call Waiting), taxes, subscriber line charges, and all other consumer expenditures associated with local 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 telephone service charges. The annual rates of change for these two indexes are presented in Table 5.3. In the CPI index, about half of the 1984 increase occurred during January, reflecting adjustments made at the time of AT&T's divestiture of its operating companies. In January 1987, when the PPI index was revised to include subscriber line charges, revised index numbers for 1985 and 1986 were issued based on the new methodology.

Table 5.3
Annual Rate of Change in Price Indexes
For Local Telephone Service *

	CPI: All Local Charges	PPI: Monthly Service Charges For Residential Service
1978	1.5%	3.1%
1979	1.7	1.6
1980	7.1	7.1
1981	12.6	15.6
1982	10.8	9.0
1983	3.2	0.2
1984	17.1	10.4
1985	8.9	12.4
1986	7.1	8.9
1987	3.3	2.6

* Measured from December to December.

D. Price Indexes for Long Distance Service:

CPI data is available for intrastate toll and interstate toll services since December 1977. Table 5.4 presents the annual changes in these series for recent years. The high inflation of the late 1970's is reflected in the long distance price increases beginning in 1980. Interstate toll rates have steadily fallen since 1983, and intrastate toll rates have stabilized since that time. The 12.4% drop in interstate rates in 1987 does not include the rate decrease occurring on January 1, 1988.

Table 5.4
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	-0.8	0.2
1980	3.5	6.1
1981	14.6	4.1
1982	2.6	7.4
1983	1.4	3.7
1984	-4.3	0.5
1985	-3.8	0.3
1986	-9.5	0.4
1987	-12.4	-3.0

* Measured from December to December.

E. Monthly Price Index Data:

The Bureau of Labor Statistics has now released Producer Price Index data covering the period through January 1988 and Consumer Price Index data through December 1987. (Our December report included data through October 1987.) Monthly data for the CPI telephone indexes are shown in Table 5.5 for the period beginning in January 1984. Monthly data for four PPI indexes (local residential service, local business service, intrastate toll and interstate toll) are shown in Table 5.6. In the first monitoring report, we published all telephone related PPI indexes rather than just these four.

TABLE 5.5

		Consumer Price Index Data				
		All	All	Local	Interstate	Intrastate
		Goods & Services	Telephone Services	Services	Toll Service	Toll Service
1984	January	305.2	183.3	154.3	121.4	122.1
	February	306.6	186.8	159.0	122.4	122.1
	March	307.3	185.9	157.7	122.4	122.0
	April	308.8	186.4	157.8	122.3	123.7
	May	309.7	186.7	158.3	122.6	123.1
	June	310.7	187.1	160.1	118.5	124.8
	July	311.7	188.1	162.3	116.2	125.9
	August	313.0	188.4	163.3	116.1	124.9
	September	314.5	189.8	165.3	116.1	124.8
	October	315.3	190.0	165.5	116.3	124.8
	November	315.3	191.1	166.9	116.2	125.4
	December	315.5	190.4	166.5	116.2	124.1
1985	January	316.1	190.8	167.1	116.2	124.0
	February	317.4	189.1	164.6	116.2	123.9
	March	318.8	191.3	167.7	116.2	124.3
	April	320.1	191.1	167.5	116.2	124.2
	May	321.3	191.4	167.7	116.8	123.9
	June	322.3	195.7	175.4	113.5	124.4
	July	322.8	197.2	177.9	111.6	125.9
	August	323.5	198.3	179.2	111.9	126.3
	September	324.5	198.6	179.6	111.9	126.3
	October	325.5	198.7	179.7	111.9	126.5
	November	326.6	199.5	181.0	111.8	126.4
	December	327.4	199.3	181.4	111.8	124.7
1986	January	328.4	200.1	182.4	111.8	125.0
	February	327.5	200.4	182.7	111.8	125.3
	March	326.0	201.3	183.9	111.8	125.4
	April	325.3	203.5	187.3	111.8	125.1
	May	326.3	203.5	187.3	111.8	125.2
	June	327.9	207.3	196.0	105.5	125.0
	July	328.0	207.3	198.1	101.5	125.0
	August	328.6	207.4	198.3	101.2	125.3
	September	330.2	206.6	197.3	101.2	124.7
	October	330.5	207.7	198.8	101.2	125.1
	November	330.8	205.3	195.4	101.2	124.8
	December	331.1	204.7	194.3	101.2	125.2
1987	January	331.2	203.7	199.0	92.4	125.4
	February	334.4	203.3	198.8	92.4	124.6
	March	335.9	203.2	198.6	92.4	124.6
	April	337.7	203.9	199.7	92.3	124.5
	May	338.7	203.3	199.7	91.9	123.2
	June	340.1	201.9	198.8	91.9	120.3
	July	340.8	203.8	203.9	88.0	121.9
	August	342.7	204.5	205.2	87.9	121.6
	September	344.4	203.7	203.7	88.4	121.2
	October	345.3	204.3	204.4	88.4	121.8
	November	345.8	204.2	204.4	88.4	121.4
	December	345.7	202.0	200.8	88.7	121.4

TABLE 5.6
 Producer Price Index Data

	Local Residential Services 4811-111	Local Business Services 4811-112	Intrastate MTS 4811-211	Interstate MTS 4811-212
1984 January	177.8	180.3	155.9	153.4
February	177.8	180.3	155.9	153.4
March	177.7	180.5	155.9	153.4
April	177.7	183.7	156.1	153.4
May	178.1	183.7	155.3	153.4
June	178.6	208.1	155.9	145.6
July	181.4	211.0	157.0	145.6
August	186.0	213.7	158.3	145.6
September	188.7	215.8	158.9	145.6
October	188.7	215.9	158.9	145.6
November	188.3	215.9	157.6	145.6
December	188.4	216.0	158.8	145.6
1985 January	189.8	218.2	159.6	145.6
February	191.9	220.7	159.6	145.6
March	191.1	220.7	159.6	145.6
April	191.1	220.7	160.8	146.6
May	192.3	220.9	162.6	147.9
June	208.8	222.2	162.8	141.3
July	209.2	222.2	162.8	141.3
August	210.4	222.9	163.4	141.3
September	211.0	223.9	163.2	141.3
October	211.0	224.6	163.2	141.3
November	211.7	228.0	163.2	141.3
December	211.7	228.0	162.0	141.3
1986 January	213.4	230.8	162.0	141.3
February	213.6	231.3	162.1	141.3
March	213.6	231.3	162.2	141.3
April	213.6	231.3	156.5	141.3
May	213.6	231.3	156.5	141.3
June	230.3	234.0	155.6	127.2
July	230.3	234.0	155.6	127.1
August	230.8	234.1	155.6	127.1
September	231.3	234.6	155.7	127.1
October	231.3	234.6	156.3	127.1
November	230.5	233.6	156.3	127.1
December	230.5	233.6	156.3	127.1
1987 January	230.1	234.0	156.3	113.8
February	230.0	234.0	155.5	113.8
March	230.3	234.1	155.5	113.8
April	229.2	233.5	154.3	113.8
May	229.2	233.5	154.6	113.8
June	229.2	233.5	154.2	113.8
July	236.6	232.7	152.5	110.0
August	236.6	232.0	152.5	110.0
September	236.6	231.9	151.6	110.0
October	236.6	232.0	151.6	110.0
November	236.6	232.0	151.5	110.0
December	236.6	232.0	151.5	110.0
1988 January	236.4	231.2	151.0	107.0

INFORMATION ON RATE LEVELS:

This section describes the level of local and long distance rates and access charges in dollar terms.

Local Rates

Local rates are regulated by state regulatory agencies and vary greatly from area to area. Characterization of any rate as "typical" is therefore difficult. In most states, the Bell Operating Companies and larger independent telephone companies 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 by the belief that the value of the service provided is higher for subscribers with more populous local calling areas. California differs from most states in that rates are averaged throughout the state. There, the basic local rate is \$8.25 for areas served by Pacific Bell and \$9.75 for areas served by General of California.

Table 5.7 presents average local residential rates in October 1986, April 1987, and October 1987. The averages are based on a survey using the same sampling areas and weights used by the Bureau of Labor Statistics (BLS) in constructing the Consumer Price Index. The price indexes published by the BLS indicate percentage changes in the price of the telephone services. The BLS does not publish the actual level of rates. In October 1987, the national average for flat rate residential service was \$12.19 monthly. In April 1987 this average rate was \$12.51, and in October 1986 this average rate was \$12.55. Lower-priced service alternatives are frequently available, at an average monthly charge of \$6.11. 2

2 The methodology used in conducting the survey is contained in the Primer and Sourcebook on Telephone Price Indexes and Rate Levels. The city specific data from the October 1986 survey is contained in Appendix 6 of the Primer. The city specific data from the April 1987 survey is contained in Local Rates Update, released December 8, 1987. Comparisons made in that report show that changes in the survey averages are roughly consistent with changes in the CPI and PPI local residential service indexes when adjustments are made for different sample definitions.

Table 5.7
Average Monthly Telephone Rates*

	October 1986	April 1987	October 1987
Lowest generally available price**	\$ 6.00	\$ 6.08	\$ 6.11
Subscriber Line Charges	2.07	2.08	2.69
Taxes	<u>.80</u>	<u>.81</u>	<u>.92</u>
Total	8.87	8.97	9.72
Private rotary line, with unlimited local calling***	12.55	12.51	\$12.19
Subscriber Line Charges	2.07	2.08	2.69
Taxes	<u>1.52</u>	<u>1.50</u>	<u>1.53</u>
Total	16.13	16.09	16.41
Connection of rotary service where no premises visit is required	45.63	45.12	43.59
Taxes	<u>n.a</u>	<u>2.50</u>	<u>2.66</u>
Total	n.a	47.61	46.25

* Rates include surcharges that result in revenues for the local telephone company. 911 service fees are included in taxes. October 1986 estimates have been revised to reflect these definitions, and to incorporate a few minor corrections. For an explanation of the methodology and the underlying data, See Local Rates Update. Items do not always sum to totals due to rounding differences.

** The lowest generally available price is the monthly charge for party line or measured service if available in the downtown area. (The private rotary line unlimited calling rate was used in the few cities where lower rates were not available.) The average does not include lifeline rates or subsidized rates which are available only to persons who meet selected criteria such as age or use of food stamps.

*** Unlimited calling service is not available in New York City or Chicago. Equivalent rates were estimated as the measured service rate with 100 message units.

Long Distance Rates

Table 5.8 compares the prices of interstate long distance calls in all mileage bands and rate periods based on AT&T's tariffed rates in effect during January 1984 and January 1988. These rates are the basic message toll service rates and do not reflect discounts available in special calling plans. During this period, AT&T's per minute charges for interstate calls have been reduced about 34% for the average residential customer. This presentation of interstate toll levels was requested by the D.C. Public Service Commission. In the September report, we presented sample rates from Washington, D.C., to New York City, which is in the 125-292 mileage band, to Atlanta and Chicago, which are in the 431-925 mileage band, and to Los Angeles, which is in the 1911-3000 mileage band.

Table 5.8
Changes in the Price of Directly Dialed Long Distance Calls
(AT&T Interstate Rates)

Calling Distance (in miles)		Five minute calls			Ten minute calls		
		Jan. 1984	Jan. 1988	Percentage change	Jan. 1984	Jan. 1988	Percentage change
1 - 10	Day	\$0.96	\$0.77	-19.8%	\$1.76	\$1.47	-16.5%
	Evening	0.57	0.50	-12.3	1.05	0.95	- 9.5
	Night	0.38	0.38	0.0	0.70	0.73	4.3
11 - 22	Day	1.28	0.94	-26.6	2.38	1.79	-24.8
	Evening	0.76	0.61	-19.7	1.42	1.16	-18.3
	Night	0.51	0.47	- 7.8	0.95	0.89	- 6.3
23 - 55	Day	1.60	1.04	-35.0	3.00	1.99	-33.7
	Evening	0.96	0.67	-30.2	1.80	1.29	-28.3
	Night	0.64	0.52	-18.8	1.20	0.99	-17.5
56 - 124	Day	2.05	1.13	-44.9	3.90	2.18	-44.1
	Evening	1.22	0.73	-40.2	2.34	1.41	-39.7
	Night	0.82	0.56	-31.7	1.56	1.08	-30.8
125 - 292	Day	2.14	1.25	-41.6	4.09	2.45	-40.1
	Evening	1.28	0.81	-36.7	2.45	1.59	-35.1
	Night	0.85	0.62	-27.1	1.63	1.22	-25.2
293 - 430	Day	2.27	1.30	-42.7	4.37	2.55	-41.6
	Evening	1.36	0.84	-38.2	2.62	1.65	-37.0
	Night	0.90	0.65	-27.8	1.74	1.27	-27.0
431 - 925	Day	2.34	1.39	-40.6	4.49	2.74	-39.0
	Evening	1.40	0.90	-35.7	2.69	1.78	-33.8
	Night	0.93	0.69	-25.8	1.79	1.37	-23.5
926 - 1910	Day	2.40	1.41	-41.2	4.60	2.76	-40.0
	Evening	1.44	0.91	-36.8	2.75	1.79	-34.9
	Night	0.96	0.70	-27.1	1.84	1.38	-25.0
1911 - 3000	Day	2.70	1.48	-45.2	5.15	2.88	-44.1
	Evening	1.62	0.96	-40.7	3.09	1.87	-39.5
	Night	1.08	0.74	-31.5	2.06	1.44	-30.1
3001 - 4250	Day	2.80	1.69	-39.6	5.35	3.29	-38.5
	Evening	1.68	1.09	-35.1	3.21	2.13	-33.6
	Night	1.12	0.84	-25.0	2.14	1.64	-23.4

4251 - 5750	Day	2.91	1.79	-38.5	5.56	3.49	-37.2
	Evening	1.74	1.16	-33.3	3.33	2.26	-32.1
	Night	1.16	0.89	-23.3	2.22	1.74	-21.6

Subscriber Line and Access Charges

Monthly interstate subscriber line charges (or "end user" charges) were first imposed on multiline business customers in 1984 and were charged to residential customers beginning in 1985. Table 5.9 presents the level of these charges over time.

Table 5.9

Interstate Subscriber Line Charges
by Local Telephone Companies to End Users
(In Dollars per Month per Line)

		Residential and Single Line Business	Multiline Business *	Centrex
5/26/84	to 5/31/85	\$0.00	\$4.99	\$2.00
6/1/85	to 9/30/85	1.00	4.99	2.00
10/1/85	to 5/31/86	1.00	4.97	2.00
6/1/86	to 12/31/86	2.00	4.97	2.00
1/1/87	to 6/30/87	2.00	5.12	3.00
7/1/87	to Present	2.60	5.12	4.00

* The monthly subscriber line charge for multiline business customers is capped at a maximum rate of \$6.00 monthly. Local companies are not permitted to charge the full amount unless justified by their underlying costs. As a result, some companies do not charge the full \$6.00. This column represents a national average calculated by NECA.

Access charges by local telephone companies to long distance carriers are an important component of the overall cost of providing long distance service. Changes in the average level of these charges are shown in Table 5.10.

Table 5.10

Interstate Charges by Local Telephone Companies to Long Distance Carriers
(National Average for "Premium" Service in Cents per Minute)

	Carrier Common Line Charge Per Originating Access Minute <u>1/</u>	Carrier Common Line Charge Per Terminating Access Minute <u>1/</u>	Total Traffic Sensitive Charge Per Access Minute <u>2/</u>	Total Charges Per Conversation Minute <u>3/</u>
5/26/84 to 12/31/84	5.24	5.24	3.1	17.3
1/1/85 to 5/31/85	5.43	5.43	3.1	17.7
6/1/85 to 9/30/85	4.71	4.71	3.1	16.2
10/1/85 to 5/31/86	4.33	4.33	3.1	15.4
6/1/86 to 12/31/86	3.04	4.33	3.1	14.0
1/1/87 to 6/30/87	1.55	4.33	3.1	12.4
7/1/87 to 12/31/87	0.69	4.33	3.1	11.5
1/1/88 to Present	0.00	4.14	3.1	10.6

1/ These are nationally uniform "premium" rates specified in tariffs filed by the National Exchange Carrier Association (NECA). Where equal access is not available, carriers other than AT&T pay discounted "non-premium" rates.

2/ Traffic sensitive switched access rates are not subject to mandatory pooling and are thus not nationally uniform. The rate shown in this column has been estimated by the FCC staff as a weighted average that includes both switching and transport charges.

3/ Long distance carriers are billed originating access charges for the time that the local network is tied up with calls that are not completed and for the time involved in setting up calls. As a result, the number of originating access minutes exceeds the number of conversation minutes. Using the ratio of access minutes to conversation minutes presented by AT&T for its domestic interstate service, the charges in this column have been calculated as follows: 107% of the originating carrier common line rate + 100% of the terminating carrier common line rate + 107% of the traffic sensitive rate (for originating access) + 100% of the traffic sensitive access rate (for terminating access).

STATE TELEPHONE RATE CASES:

The actions of state regulatory commissions provide important indicators of future local and state toll rate levels. 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 indication of future rate changes.

At the time of divestiture, rate cases pending before state public utility commissions totaled nearly \$7 billion. During the first half of 1984, state commissions completed action on a number of extraordinarily large rate cases. After the first half of 1984, however, the level of activity in state cases diminished substantially. During 1987, the dollar amount of rate reductions and refunds ordered by state commissions exceeded the dollar amount of rate increases authorized and, at the end of 1987, total rate requests pending had declined to about \$125 million. Since it typically takes more than a year for a rate case to be completed, the low level of pending cases should indicate a correspondingly low level of state and local increases during at least the next year.

The data on state rate cases shown in table 5.11 differs from the data on state rate cases published in our previous monitoring report. We have eliminated rural service improvement programs that are not intended to affect a telephone company's earnings and restated the summary of activity during each quarter of 1987 to reflect this change. (We have not restated 1986 results in a similar manner because the effect of such programs was minor prior to 1987.) Rural service improvement programs are not undertaken to improve a company's net revenues and are not traditional rate cases. Because such cases were reported by some companies but not by others, the data previously published was not always consistent from company to company. We believe this change will make the published data more consistent and useful.

TABLE 5.11

State Telephone Rate Cases
(Millions of Dollars)

	<u>Revenue</u> <u>Increases</u> <u>Requested</u> <u>During Quarter</u>	<u>Revenue</u> <u>Changes</u> <u>Ordered</u> <u>During Quarter</u>	<u>Requests</u> <u>Pending</u> <u>at End</u> <u>of Quarter</u>
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	-41.0	67.1
Second quarter	19.4	-48.5	47.7
Third quarter	62.0	-91.0	94.0
Fourth quarter	<u>57.9</u>	<u>-279.9</u>	124.7
Total	146.3	-460.4	

ADDITIONAL DATA RECEIVED

Since our last monitoring report, the Michigan Public Service Commission has filed rate and tariff information in our monitoring docket. No other comments or submissions on rates have been received. We have not included the Michigan data in this report for two reasons --we have no similar data from other states at this time and the data is voluminous and not easily summarized. We expect that rate data now being developed by NARUC will be similar in many respects to the data submitted by Michigan.

ADDITIONAL SOURCES OF FUTURE INFORMATION

As noted in our last monitoring report, three groups--Bellcore, the NARUC Subcommittee on Communications, and USTA--are working on the development of information on rates that will, in the future, provide additional information for the monitoring report. We hope that the data collection efforts now in progress will provide a more complete level of detail on rates and revenues. We welcome any suggestions on further refinements of this section of the monitoring report.

6. Bypass

The first monitoring report, September 1987, emphasized the need for a uniform and periodic bypass reporting system. The periodic bypass reports would be supplied by the major carriers. The first report requested proposals for a bypass reporting system, and included substantial excerpts from the Third Report on Bypass of the Public Switched Network.

The second monitoring report, December 1987, contained an analysis by the Joint Board Staff of the comments and proposals received in response to the request made in the first report. As a result of the analysis of the proposals, the staff suggested three-part bypass monitoring data forms, which were published in the December report. The staff also encouraged other local exchange companies to file bypass data and reports. Reports were also requested on those large users returning to the public switched network.

On December 24, 1987, the Chief of the Common Carrier Bureau of the FCC sent the three-part bypass data forms to the seven Regional Bell Operating Companies and GTE. The Bureau Chief requested that the first set of completed forms be filed by April 29, 1988, in time to be incorporated in the June 1988 monitoring report. Thereafter, reports will be filed on a semi-annual basis.

7. Pooling and Rate Deaveraging

As has been noted in previous monitoring reports, the transition to jurisdictionally-specific Carrier Common Line (CCL) charges will not occur until April 1989 and, thus, no new pressures to deaverage interstate toll rates should exist before that time.

Beginning in 1989, our monitoring effort should include information on LECs withdrawing from the pooling process, the dimensions of long term support and transitional support payments among the LECs, and the common line revenue requirements for the LECs remaining in the NECA pool. To further this effort, we asked NECA to file data regarding revenues and expenses of pool members by study area on an annual basis, and nationwide totals on a monthly basis.

The latest nationwide pooling figures through November 1987, provided by NECA, follow in Tables 7.1 through 7.5. Table 7.1 shows the total CCL pool revenues. Table 7.2 shows the pool revenues for Tier I companies. Table 7.3 shows the revenues for non-Tier I companies. Table 7.4 summarizes CCL pool revenues and expenses for the month of November and the eleven-month total of January through November 1987. Table 7.5 has corresponding figures for NECA's voluntary traffic sensitive pool.

TABLE 7.1

NATIONAL EXCHANGE CARRIER ASSOCIATION.

SUPPLEMENTAL REPORT OF COMMON LINE POOL RESULTS
REPORTED AS OF JANUARY, 1988

N E C A CCL EARNED REVENUES

TOTAL COMMON LINE POOL

(REVENUE REPORTED IN MILLIONS)

MONTH/YR	PREMIUM CCL EARNED REVENUE			NONPREMIUM CCL EARNED REVENUE		
	ORIGINATING	TERMINATING	TOTAL	ORIGINATING	TERMINATING	TOTAL
JAN 85	N/A	N/A	700.370	N/A	N/A	52.432
FEB 85	N/A	N/A	705.805	N/A	N/A	53.470
MAR 85	N/A	N/A	728.642	N/A	N/A	55.947
APR 85	N/A	N/A	746.931	N/A	N/A	55.622
MAY 85	N/A	N/A	749.887	N/A	N/A	49.698
JUN 85	N/A	N/A	654.935	N/A	N/A	48.673
JUL 85	N/A	N/A	666.281	N/A	N/A	46.436
AUG 85	N/A	N/A	687.002	N/A	N/A	42.289
SEP 85	N/A	N/A	680.924	N/A	N/A	41.867
OCT 85	N/A	N/A	658.437	N/A	N/A	34.734
NOV 85	N/A	N/A	618.577	N/A	N/A	34.722
DEC 85	N/A	N/A	649.594	N/A	N/A	34.464
JAN 86	N/A	N/A	662.101	N/A	N/A	29.693
FEB 86	N/A	N/A	634.796	N/A	N/A	29.224
MAR 86	N/A	N/A	683.746	N/A	N/A	29.248
APR 86	N/A	N/A	687.079	N/A	N/A	27.265
MAY 86	N/A	N/A	693.679	N/A	N/A	24.561
JUN 86	171.067	354.435	525.503	6.524	15.784	22.309
JUL 86	191.911	353.053	544.965	6.893	14.780	21.674
AUG 86	188.035	354.456	542.493	5.905	13.544	19.458
SEP 86	191.809	353.160	544.970	5.013	13.341	18.355
OCT 86	201.679	370.255	571.935	4.314	13.105	17.420
NOV 86	195.327	352.763	548.091	4.660	13.461	18.122
DEC 86	214.241	381.217	595.458	4.128	12.994	17.123
JAN 87	109.408	371.149	480.558	2.404	12.546	14.951
FEB 87	105.554	373.585	479.140	2.431	13.148	15.580
MAR 87	115.888	410.964	526.853	2.550	14.773	17.324
APR 87	111.776	399.193	510.969	2.444	13.681	16.126
MAY 87	110.300	389.200	499.501	2.109	13.225	15.335
JUN 87	116.846	406.395	523.242	1.886	13.599	15.486
JUL 87	57.675	411.263	468.939	1.034	13.279	14.314
AUG 87	52.182	411.772	463.955	0.843	15.012	15.856
SEP 87	52.144	423.761	475.906	0.824	12.855	13.680
OCT 87	54.665	443.950	498.616	0.783	12.437	13.221
NOV 87	53.143	424.496	477.640	0.699	12.063	12.763

TABLE 7.2

NATIONAL EXCHANGE CARRIER ASSOCIATION.

SUPPLEMENTAL REPORT OF COMMON LINE POOL RESULTS
REPORTED AS OF JANUARY, 1988

N E C A CCL EARNED REVENUES

TIER 1

(REVENUE REPORTED IN MILLIONS)

MONTH/YR	PREMIUM CCL EARNED REVENUE			NONPREMIUM CCL EARNED REVENUE		
	ORIGINATING	TERMINATING	TOTAL	ORIGINATING	TERMINATING	TOTAL
JAN 85	N/A	N/A	656.935	N/A	N/A	51.992
FEB 85	N/A	N/A	662.562	N/A	N/A	53.030
MAR 85	N/A	N/A	684.197	N/A	N/A	55.475
APR 85	N/A	N/A	701.296	N/A	N/A	55.110
MAY 85	N/A	N/A	703.697	N/A	N/A	49.178
JUN 85	N/A	N/A	612.479	N/A	N/A	48.161
JUL 85	N/A	N/A	624.678	N/A	N/A	45.913
AUG 85	N/A	N/A	643.335	N/A	N/A	41.770
SEP 85	N/A	N/A	638.370	N/A	N/A	41.350
OCT 85	N/A	N/A	619.324	N/A	N/A	34.271
NOV 85	N/A	N/A	579.630	N/A	N/A	34.263
DEC 85	N/A	N/A	609.816	N/A	N/A	33.997
JAN 86	N/A	N/A	623.074	N/A	N/A	29.265
FEB 86	N/A	N/A	597.374	N/A	N/A	28.702
MAR 86	N/A	N/A	643.660	N/A	N/A	28.735
APR 86	N/A	N/A	646.758	N/A	N/A	26.740
MAY 86	N/A	N/A	652.714	N/A	N/A	24.002
JUN 86	159.739	330.995	490.735	6.391	15.461	21.853
JUL 86	180.060	331.295	511.356	6.754	14.483	21.238
AUG 86	175.871	331.527	507.400	5.746	13.179	18.926
SEP 86	179.861	331.159	511.021	4.837	12.874	17.712
OCT 86	189.498	347.891	537.390	4.152	12.612	16.765
NOV 86	183.111	330.698	513.810	4.487	12.964	17.452
DEC 86	201.682	358.839	560.522	3.971	12.499	16.470
JAN 87	102.411	347.413	449.825	2.302	12.014	14.318
FEB 87	99.310	351.487	450.798	2.342	12.666	15.009
MAR 87	109.368	387.845	497.215	2.471	14.316	16.788
APR 87	105.170	375.599	480.770	2.362	13.222	15.585
MAY 87	103.611	365.599	469.212	2.024	12.691	14.715
JUN 87	109.969	382.477	492.446	1.812	13.066	14.879
JUL 87	54.101	385.784	439.885	0.996	12.795	13.792
AUG 87	48.878	385.772	434.651	0.808	14.476	15.285
SEP 87	49.059	398.686	447.746	0.790	12.321	13.111
OCT 87	51.538	418.554	470.093	0.753	11.951	12.705
NOV 87	50.000	399.382	449.383	0.665	11.466	12.132

TABLE 7.3

NATIONAL EXCHANGE CARRIER ASSOCIATION

SUPPLEMENTAL REPORT OF COMMON LINE POOL RESULTS
REPORTED AS OF JANUARY, 1988

N E C A CCL EARNED REVENUES

NON-TIER 1

(REVENUE REPORTED IN MILLIONS)

MONTH/YR	PREMIUM CCL EARNED REVENUE			NONPREMIUM CCL EARNED REVENUE		
	ORIGINATING	TERMINATING	TOTAL	ORIGINATING	TERMINATING	TOTAL
JAN 85	N/A	N/A	43.435	N/A	N/A	0.439
FEB 85	N/A	N/A	43.243	N/A	N/A	0.440
MAR 85	N/A	N/A	44.445	N/A	N/A	0.472
APR 85	N/A	N/A	45.635	N/A	N/A	0.512
MAY 85	N/A	N/A	46.189	N/A	N/A	0.520
JUN 85	N/A	N/A	42.456	N/A	N/A	0.512
JUL 85	N/A	N/A	41.603	N/A	N/A	0.523
AUG 85	N/A	N/A	43.667	N/A	N/A	0.519
SEP 85	N/A	N/A	42.554	N/A	N/A	0.518
OCT 85	N/A	N/A	39.113	N/A	N/A	0.463
NOV 85	N/A	N/A	38.948	N/A	N/A	0.459
DEC 85	N/A	N/A	39.777	N/A	N/A	0.467
JAN 86	N/A	N/A	39.027	N/A	N/A	0.428
FEB 86	N/A	N/A	37.422	N/A	N/A	0.522
MAR 86	N/A	N/A	40.085	N/A	N/A	0.513
APR 86	N/A	N/A	40.321	N/A	N/A	0.525
MAY 86	N/A	N/A	40.965	N/A	N/A	0.559
JUN 86	11.327	23.439	34.768	0.133	0.322	0.456
JUL 86	11.850	21.758	33.609	0.138	0.297	0.436
AUG 86	12.163	22.929	35.093	0.159	0.365	0.524
SEP 86	11.948	22.000	33.949	0.175	0.467	0.643
OCT 86	12.180	22.363	34.544	0.162	0.492	0.655
NOV 86	12.215	22.065	34.281	0.172	0.496	0.669
DEC 86	12.558	22.377	34.937	0.157	0.495	0.653
JAN 87	6.997	23.736	30.734	0.101	0.531	0.633
FEB 87	6.243	22.098	28.342	0.089	0.481	0.571
MAR 87	6.519	23.118	29.638	0.078	0.456	0.536
APR 87	6.606	23.593	30.200	0.081	0.458	0.541
MAY 87	6.688	23.600	30.289	0.085	0.534	0.620
JUN 87	6.877	23.918	30.796	0.073	0.532	0.607
JUL 87	3.573	25.479	29.054	0.037	0.484	0.522
AUG 87	3.304	26.000	29.304	0.034	0.535	0.571
SEP 87	3.085	25.075	28.161	0.034	0.534	0.569
OCT 87	3.127	25.395	28.523	0.030	0.485	0.516
NOV 87	3.143	25.113	28.257	0.034	0.597	0.632

TABLE 7.4

NATIONAL EXCHANGE CARRIER ASSOCIATION, INC.
SUMMARY OF POOL RESULTS FOR THE MONTH ENDING NOVEMBER 30, 1987
REPORTED AS OF JANUARY 31, 1988

COMMON LINE (CL) (Note 1)	CURRENT MONTH	1987 POOL YEAR (Note 2)
Carrier Common Line (CCL) Earned Revenue		
Premium	\$477,615,946	\$5,497,276,701
Non-premium	\$12,787,834	\$162,678,317
Special Access Surcharge	\$7,015,935	\$99,904,085
CCL Net Realized Uncollectibles	\$93,478	\$4,739,287
CCL Net Earned Revenue	\$497,326,237	\$5,665,119,816
End User Earned Revenues	\$366,244,967	\$3,697,605,766
End User Net Realized Uncollectibles	\$1,736,253	\$18,184,460
End User Net Earned Revenues	\$364,508,714	\$3,589,421,306
Total Common Line Net Earned Revenues	\$861,834,951	\$9,254,541,122
CL Income from Interest Charged Construction	\$1,090,801	\$12,629,620
Total Common Line Revenues	\$862,925,752	\$9,267,170,742
NECA Administrative Cost	\$3,442,368	\$39,309,933
Average Schedule Company Settlements	\$21,277,675	\$238,655,298
Common Line Expenses and other Taxes	\$573,181,201	\$6,287,544,974
Common Line Adjusted Federal Income Tax	\$71,440,679	\$710,127,669
Universal Service Fund (effective 1/1/86)	\$11,451,866	\$117,250,150
Total Common Line Costs	\$680,793,789	\$7,392,888,024
Common Line Residue for Distribution (Note 3)	\$182,131,963	\$1,874,282,718
Common Line Net Investment	\$17,334,797,091	\$17,444,180,334
Annualized Common Line Residue Ratio (Note 4)		
- NEW TAX LAW	12.61%	11.72%
(Note 5)		
AS FILED - OLD TAX LAW	12.16%	11.34%

Note 1: All of the individual line items include some estimates and are subject to further adjustments under current NECA procedures.

Note 2: The 1987 pool year is for the period beginning January 1, 1987 through the CURRENT MONTH. The Net Investment is an average of the cumulative months reported.

Note 3: Residue for Distribution is Total Revenues less Total Expenses.

Note 4: Annualized Residue Ratio in the CURRENT MONTH is calculated by dividing the amount of Residue for Distribution by the amount of average Net Investment and multiplying by 12 months X 100. The annualized POOL YEAR Residue Ratios are similarly computed except that the sum of the calculation is then divided by the number of POOL YEAR reporting periods.

Note 5: NEW TAX LAW reflects pool results calculated with the effects, as reported by member companies, of the 1986 Tax Reform Act (TRA), and use of the blended tax rate of 39.95% and is the actual basis for settlements distribution. AS FILED - OLD TAX LAW, reflects NECA's estimate of what pool results would be without the adoption of the 1986 TRA, consistent with NECA's October 1986 Tariff Filing and the Commission's MO+O dated December 24, 1986.

TABLE 7.5
 NATIONAL EXCHANGE CARRIER ASSOCIATION, INC.
 SUMMARY OF POOL RESULTS FOR THE MONTH ENDING NOVEMBER 30, 1987
 REPORTED AS OF JANUARY 31, 1988

TRAFFIC SENSITIVE (TS) (Note 1)	CURRENT MONTH	1987 POOL YEAR (Note 2)
TS Earned Revenue	\$41,004,038	\$421,273,312
TS Net Realized Uncollectibles	\$8,691	\$50,869
TS Net Earned Revenue	\$40,995,347	\$421,222,443
TS Income From Interest Charged Construction	\$24,302	\$253,524
Total Traffic Sensitive Revenues	\$41,019,649	\$421,475,967
Average Schedule Company Settlements	\$14,605,644	\$156,391,142
TS Expenses and other Taxes	\$15,874,990	\$173,010,142
TS Adjusted Federal Income Tax	\$2,925,367	\$23,469,726
Total Traffic Sensitive Expenses	\$33,406,001	\$352,871,010
TS Residue For Distribution (Note 3)	\$7,613,648	\$68,604,957
TS Net Investment	\$565,962,256	\$558,101,641
Annualized Traffic Sensitive Residue Ratio (Note 4)		
- NEW TAX LAW (Note 5)	16.14%	13.41%
AS FILED - OLD TAX LAW	15.33%	12.84%

Note 1: All of the individual line items include some estimates and are subject to further adjustments under current NECA procedures.

Note 2: The 1987 pool year is for the period beginning January 1, 1987 through the CURRENT MONTH. The Net Investment is an average of the cumulative months reported.

Note 3: Residue for Distribution is Total Revenues less Total Expenses.

Note 4: Annualized Residue Ratio in the CURRENT MONTH is calculated by dividing the amount of Residue for Distribution by the amount of average Net Investment and multiplying by 12 months X 100. The annualized POOL YEAR Residue Ratios are similarly computed except that the sum of the calculation is then divided by the number of POOL YEAR reporting periods.

Note 5: NEW TAX LAW reflects pool results calculated with the effects, as reported by member companies, of the 1986 Tax Reform Act (TRA), and use of the blended tax rate of 39.95% and is the actual basis for settlements distribution. AS FILED - OLD TAX LAW, reflects NECA's estimate of what pool results would be without the adoption of the 1986 TRA, consistent with NECA's October 1986 Tariff Filing and the Commission's MO+O dated December 24, 1986.

8. Jurisdictional Shifts in Revenue Requirements

To address concerns that changes in the separations procedures might dramatically shift costs between jurisdictions and thereby lead to unanticipated or significant rate increases, the monitoring program includes the examination of jurisdictional shifts in revenue requirements that occur starting in 1988. This section discusses the monitoring efforts that will be undertaken in this area as the information becomes available.

In 1987, the Commission adopted the recommendations of the Joint Board in Docket No. '86-297 which conformed separations procedures to the revised Uniform System of Accounts and simplified those procedures. The Commission also adopted the Joint Board's recommendation that review of the jurisdictional revenue requirement shifts resulting from these changes be included in the monitoring plan. Pursuant to the Commission's decision, no formal reports from carriers on jurisdictional shifts in revenue requirements are until March 1989. At that time, shifts occurring during calendar year 1988 will be reported by carriers.

Specifically, the Commission in its order requested information on jurisdictional shifts in total revenue requirements that exceed 5% or more of the company's annual total revenue requirements for the study area. The shifts in revenue requirements to be reported by carriers are those resulting from conformance of the separations rules to the new accounting rules and from simplification of the separations rules. Other separations procedures changes (including those relating to central office equipment and other changes recommended by the Joint Board in Docket No. 80-286) will be excluded.

Subsequent to the Commission's adoption of the Joint Board's recommended monitoring plan, further separations issues developed. The Commission reconsidered its decision regarding the separations procedures for marketing expenses, and decided that, on an interim basis, billings for access charges should be included in the allocation factor for these expenses. ¹ The Commission was concerned, as were the state members of the Joint Board, that the revenue requirement impact of the exclusion of access revenues from the allocation factor had not been fully tested in the conformance proceeding. The Commission referred this issue to the Joint Board in CC Docket No. 80-286 and requested that the Joint Board recommend a permanent solution by April 1, 1988. ²

¹ Amendment of Part 36 of the Commission's Rules. CC Docket Nos. 78-72, 80-286, and 86-297, 2 FCC Rcd 5349 (1987) (Supplemental NPRM).

² In addition, petitions for reconsideration regarding other aspects of

SUMMARY OF COMMENTS

A summary of comments received since the December report follows. Most of these are in response to a Petition for Clarification and Reconsideration filed by Pacific Bell and Nevada Bell (the Pacific Companies) on October 28, 1987. The content of this petition is identical to the comments they filed at the same time, which were summarized in the December monitoring report.

The Pacific Companies' petition for reconsideration of the monitoring proceeding raises the issue of jurisdictional revenue requirements shifts. Specifically, the Pacific Companies request that the Commission clarify or modify its request in order to permit LECs to report simulated, rather than actual, impacts on revenue requirements of the new separations rules. The Pacific Companies propose to use modeling techniques to simulate actual revenue requirement impacts.

The Pacific Companies contend that for the LECs to calculate the actual impacts of the separations conformance and simplification, they would have to maintain costly dual accounting and separations systems for the sole purpose of complying with the reporting requirements. Specifically, the Pacific Companies argue that if the LECs are required to report actual impacts, they would have to retain (for both 1988 and 1989) the former Part 31 accounting procedures, the former Part 67 separations procedures, and the former access charge mechanized allocation system. The Pacific Companies also state that, to report actual data, they would have to continue to perform complex separations studies which would no longer be necessary after 1987 if they were allowed to report simulated impacts. The Pacific Companies also note that the LECs would have to maintain additional procedures to eliminate the effects of other separations changes ordered in CC Docket No. 80-286.

Several parties filed responsive pleadings. USTA supports the Pacific Companies' petition. The Ameritech Operating Companies (Ameritech) and Southwestern Bell Telephone Company (Southwestern) disagree with the Pacific Companies' interpretation of the decisions regarding the reporting requirements for jurisdictional shifts. Ameritech and Southwestern contend that the decisions of the two Joint Boards and the Commission do not require the use of dual accounting and separations procedures or prohibit the use of modeling techniques to

the revised separations procedures are currently pending before the Commission.

calculate revenue requirement shifts. Ameritech and Southwestern agree, however, with the Pacific Companies' concern that the Commission clarify this issue.

Ameritech states that the use of the word "calculated" in the Monitoring Recommended Decision and Order suggests that the only actual data that LECs must analyze are those based on the new accounting and separations rules, not based on the former procedures. Ameritech asserts that the use of modeling techniques to calculate revenue requirement shifts would be fully consistent with the Joint Board's decision. Moreover, Ameritech states that if this Commission construed the monitoring plan as requiring the use of Part 31 accounting after the effective date of the replacement Part 32, that decision would violate Section 220(g) of the Communications Act, which mandates that carriers maintain one set of prescribed accounts. 3

Ameritech and Southwestern contend that the Commission demonstrated that it did not contemplate requiring dual accounting and separations procedures for reporting jurisdictional shifts when it submitted the monitoring plan for approval by the Office of Management and Budget (OMB) pursuant to the Paperwork Reduction Act. 4 In requesting such approval for the monitoring plan, the Commission advised OMB that the reporting of revenue requirement shifts would require a special study that would require approximately 120 hours to complete for each of the fifteen companies expected to report, for a total of 1,800 hours for the industry.

Ameritech and Southwestern argue that the estimate supplied by the Commission to OMB clearly shows that the Commission never intended to require dual accounting and separations systems. First, Ameritech and Southwestern assert that if LECs were required to report actual impacts, no special study would be required. Second, they submit that maintenance of dual accounting and separations procedures would require much more than 120 hours to implement per company. Moreover, Ameritech asserts that OMB would not have approved the monitoring plan if it had believed that the Commission intended to impose the costly burden of maintaining dual accounting and separations systems.

Ameritech and Southwestern also assert that maintenance of a dual set of accounting procedures would be unnecessarily burdensome and costly for the LECs and their customers. 5 Southwestern further asserts that even

3 47 U.S.C. Sec. 220(g).

4 44 U.S.C. Sec. 3505.

if it were required to retain Part 31 and Part 32 accounting records, actual separated Part 31 data could not be meaningfully compared to actual separated Part 32 data because the actual Part 32 separated amounts would reflect many accounting and separations changes that the Joint Board and the Commission expressly stated should be excluded from the reported data. Therefore, Southwestern concludes, any meaningful jurisdictional shift analysis must be predicated on a computer modeling of the correlations between the former rules and the new rules as applied to actual current accounting records.

Ameritech and Southwestern contend that the costs associated with the maintenance of dual accounting and separations procedures would be greatly reduced by allowing carriers to report simulated impacts developed through a modeling technique. Ameritech urges the Commission to adopt the model developed by USTA as a guide for determining jurisdictional revenue requirement shifts. Southwestern proposes an approach using updates of the jurisdictional revenue requirement shift estimates that LECs provided to the Joint Board in CC Docket No. 86-297, which were based on a modeling approach. 6

The New York State Department of Public Service (New York) states that neither the Joint Board nor the Commission has presented an analysis of the cumulative nationwide effect of all the separations revisions that have resulted from the recent separations decisions. New York is concerned that no clear overall picture exists of the impact of the recent separations changes adopted by the Joint Boards in CC Docket Nos. 80-286 and 86-297. New York believes that the monitoring proceeding would be the ideal vehicle to develop such an analysis because the cumulative effects of all separations changes are directly related to the issues subject to monitoring over the next five years. Therefore, New York suggests that the monitoring program be amended to include consideration of the jurisdictional revenue requirement impact of the recent changes adopted by the Joint Board in CC Docket No. 80-286 and of depreciation reserve deficiencies. New York presents a proposal for the calculation of these cumulative separations effects. 7

New York contends that neither the Joint Board nor the Commission has addressed the revenue requirement impact resulting from changes in the

5 See Comments of Ameritech at 6-8; Comments of Southwestern at 4-6.

6 See Comments of Ameritech at 6-8; Comments of Southwestern at 4-6.

7 See Comments of New York at 4.

allocation of depreciation reserve deficiencies. New York maintains that the recent changes in jurisdictional allocation factors for plant investment could shift substantial reserve deficiencies from the interstate jurisdiction to the state jurisdiction. New York also contends that although some states require the amortization of reserve deficiencies over a specified period of time, those reserve deficiencies may not be fully amortized as scheduled, in light of the revenue requirement shift to the state jurisdiction that may result from recent separations changes. New York is concerned that any additional costs incurred by the state jurisdiction and any additional revenue requirement shifted to the state jurisdiction be fully recognized and quantified. It therefore requests that the monitoring program be amended to include such information.