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**Federal Communications Commission**  
**1919 - M Street, N.W.**  
**Washington, D. C. 20554**

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This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action. See *MCI v. FCC*, 515 F.2d 385 (D.C. Cir. 1974).

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March 31, 1999

## **FCC RELEASES REPORT ON LONG DISTANCE MARKET**

The FCC has released a staff report entitled *Long Distance Market Shares*. The report summarizes publicly available data on long distance market shares.

Total toll revenues earned by long distance carriers have increased consistently since 1984. According to revenues reported to the FCC by carriers, AT&T's share of long distance carrier toll revenues fell from 90% in 1984 to slightly less than half the market in 1997. MCIWorldCom and Sprint now account for about one third of the long distance market. The market shares of smaller carriers grew even faster, increasing from 3% to 20% during that same period of time.

Switched access minutes have also increased consistently since 1984. With smaller carriers access minutes growing faster than AT&T's access minutes, AT&T's share of the overall market for interstate switched minutes declined from over 80% in late 1984 to under 52% in the fourth quarter of 1998.

In addition to information on revenues and minutes, the report contains information on international revenues, residential revenues, and presubscribed lines.

The report is available for reference in the Common Carrier Bureau Public Reference Room, 1919 M Street N.W., Room 222. Copies may be purchased by calling International Transcription Services, Inc. (ITS) at (202) 857-3800. The report can be downloaded [file name: MKSH4Q98.ZIP] from the **FCC-State Link** internet site at <http://www.fcc.gov/ccb/stats> on the World Wide Web.

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For additional information, contact James Zolnierek, Katie Rangos, or James Eisner of the Common Carrier Bureau's Industry Analysis Division, (202) 418-0940, or for users of TTY equipment, call (202) 418-0484.

# LONG DISTANCE MARKET SHARES FOURTH QUARTER 1998

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Industry Analysis Division  
Common Carrier Bureau  
Federal Communications Commission  
March 1999



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This report is available for reference in the Common Carrier Bureau's Public Reference Room, 1919 M Street, N.W., Room 222. Copies may be purchased by calling International Transcription Services, Inc. (ITS) at (202) 857-3800. The report can be downloaded [file name: MKSH4Q98.ZIP] from the **FCC-State Link** internet site at <http://www.fcc.gov/ccb/stats> on the World Wide Web.

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## LONG DISTANCE MARKET SHARES

This report presents information on access minutes, presubscribed lines, and revenues for long distance telephone companies. Company shares of the long distance market are presented for each measure. Market shares are also reported according to each measure for the residential long distance market, and according to revenues for the international long distance market.

### 1. INTERSTATE CALLING MINUTES

“Switched access minutes” provide one measure of the volume of traffic carried on the public switched telephone network. Long distance telephone companies ordinarily access the distribution networks of local telephone companies at both ends of long distance calls. Access minutes are a measure of the number of minutes that long distance companies need to access local lines in order to complete long distance calls for their customers. For each conversation minute of a long distance call there are typically two access minutes, one on the originating end and one on the terminating end.<sup>1</sup> Access minutes on the originating end are measured from the time the call is delivered to the caller's long distance carrier. On the terminating end, usage is measured from the time the call is received by the called party. Timing of usage at both ends of a call terminates when either the calling or called party disconnects.

Column 1 of Table 1.1 shows total interstate, including international, switched access minutes reported for all long distance carriers by the National Exchange Carrier Association (NECA).<sup>2</sup> Interstate calling has grown steadily, with access minutes more than tripling, since this information was first measured in the third quarter of 1984.

Terminating access minutes, which do not include dialing and call set up time, closely approximate long distance conversation minutes.<sup>3</sup> Table 1.1 Column 2 shows the number of terminating switched interstate access minutes reported for all long distance carriers by NECA since terminating minutes were first reported separately in 1986. Terminating access minutes have tripled in this time.

Columns 3 and 4 of Table 1.1 show AT&T's reported total and terminating access minutes.<sup>4</sup> Columns 5 and 6 show AT&T's market shares of total and terminating access minutes. Since mid-1984, AT&T's traffic has grown at a rate slower than the industry average. AT&T's minutes have doubled during that period while the minutes for other carriers increased more than ten-fold. As a result AT&T's share of long distance access minutes has decreased 40%.

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<sup>1</sup>800 and 888 calls only generate originating access minutes, which are billed, somewhat confusingly, at the rate normally charged for terminating minutes. WATS calls generate only terminating access minutes. International calls only generate originating access minutes when exiting the United States and only terminating access minutes when entering the United States. Access minutes are not measured for calls made on private telecommunications systems and on leased lines.

<sup>2</sup>NECA reports information on switched access minutes March 15, June 15, September 15, and December 15 each year. NECA revises estimates of total industry minutes as additional information is received.

<sup>3</sup>Terminating minutes do not equal conversation minutes because terminating minutes for international calls exiting the United States are not counted and terminating minutes for some personal 800 numbers are counted twice.

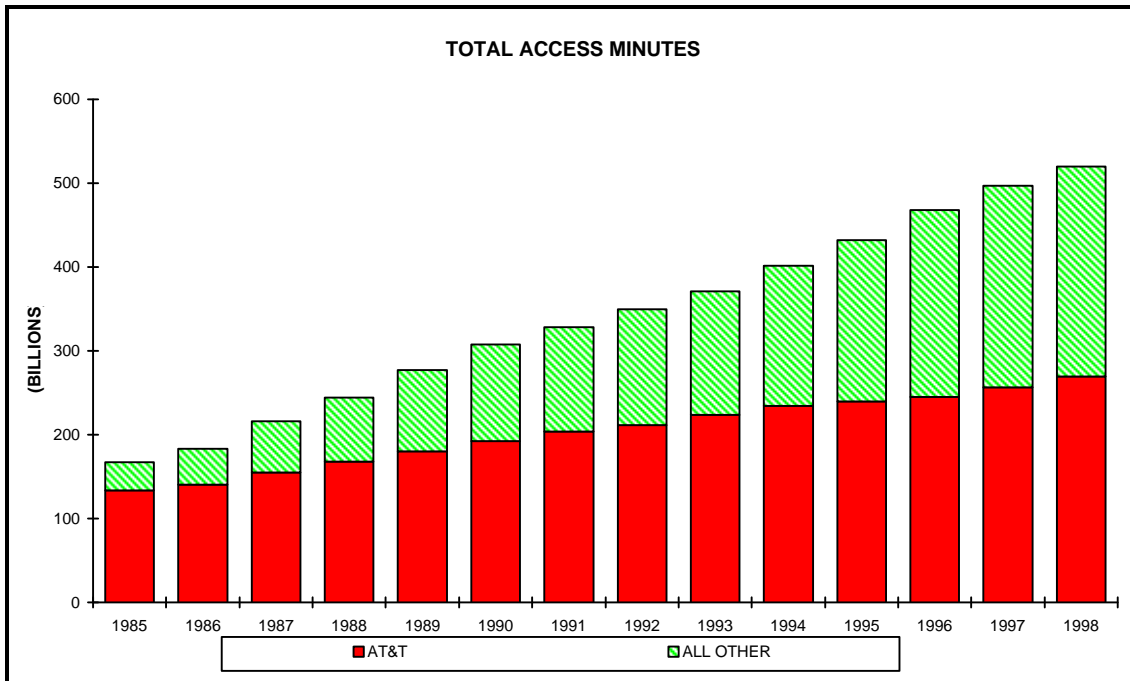
<sup>4</sup>AT&T also files information on its switched minutes on March 15, June 15, September 15, and December 15 each year. AT&T includes the access minutes it sells to other carriers in its counts.

**TABLE 1.1 - INTERSTATE SWITCHED ACCESS MINUTES  
(FIGURES SHOWN IN BILLIONS)**

	TOTAL INDUSTRY		AT&T		AT&T'S SHARE OF	
	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES
1984 THIRD QUARTER	37.5		31.6	18.1	84.2 %	
FOURTH QUARTER	39.6		31.8	18.2	80.2	
1985 FIRST QUARTER	39.6		32.8	19.0	83.0	
SECOND QUARTER	41.5		33.3	19.2	80.3	
THIRD QUARTER	42.8		33.8	19.4	78.9	
FOURTH QUARTER	43.3		33.4	19.2	77.1	
TOTAL 1985	167.1		133.3	77.0	79.8	
1986 FIRST QUARTER	43.0		34.2	19.9	79.5	
SECOND QUARTER	44.8		34.7	20.2	77.5	
THIRD QUARTER	46.7	26.7	35.8	20.7	76.6	77.7 %
FOURTH QUARTER	48.5	27.6	35.9	20.6	74.0	74.7
TOTAL 1986	183.1		140.6	81.5	76.8	
1987 FIRST QUARTER	51.2	28.9	37.4	21.4	72.9	74.2
SECOND QUARTER	52.5	29.7	38.6	22.1	73.7	74.2
THIRD QUARTER	55.0	30.9	39.2	22.3	71.2	72.1
FOURTH QUARTER	57.0	32.3	40.1	22.6	70.4	70.1
TOTAL 1987	215.7	121.8	155.3	88.4	72.0	72.6
1988 FIRST QUARTER	59.0	33.4	41.2	23.3	69.8	69.9
SECOND QUARTER	59.6	33.6	41.1	23.0	69.0	68.5
THIRD QUARTER	62.1	34.9	42.3	23.6	68.2	67.6
FOURTH QUARTER	64.0	35.9	43.0	23.6	67.2	65.8
TOTAL 1988	244.6	137.8	167.6	93.6	68.5	67.9
1989 FIRST QUARTER	66.2	37.3	44.2	24.5	66.8	65.7
SECOND QUARTER	68.5	38.1	44.4	24.5	64.8	64.4
THIRD QUARTER	69.7	38.6	44.9	24.7	64.4	64.1
FOURTH QUARTER	72.6	40.0	46.4	25.3	63.9	63.3
TOTAL 1989	277.1	153.9	179.9	99.0	64.9	64.3
1990 FIRST QUARTER	74.7	41.2	47.1	25.8	63.0	62.5
SECOND QUARTER	75.8	41.9	47.1	25.7	62.1	61.5
THIRD QUARTER	77.9	43.4	48.7	26.4	62.5	60.9
FOURTH QUARTER	79.1	43.1	49.8	27.8	63.0	64.5
TOTAL 1990	307.4	169.6	192.6	105.8	62.6	62.4
1991 FIRST QUARTER	79.2	43.4	49.9	27.1	63.0	62.4
SECOND QUARTER	81.9	44.9	50.5	26.8	61.7	59.6
THIRD QUARTER	82.6	45.1	51.2	27.1	61.9	60.1
FOURTH QUARTER	84.4	46.4	52.4	27.9	62.1	60.0
TOTAL 1991	328.0	179.8	204.0	108.8	62.2	60.5
1992 FIRST QUARTER	85.6	47.7	53.3	28.6	62.2	59.9
SECOND QUARTER	86.5	48.2	51.9	27.9	60.0	57.8
THIRD QUARTER	87.9	49.1	53.0	28.4	60.3	57.9
FOURTH QUARTER	89.8	50.4	53.5	28.8	59.7	57.1
TOTAL 1992	349.7	195.4	211.7	113.6	60.5	58.2
1993 FIRST QUARTER	90.6	51.0	55.5	29.7	61.3	58.1
SECOND QUARTER	91.2	51.9	55.0	29.9	60.3	57.6
THIRD QUARTER	93.6	54.8	56.3	31.4	60.2	57.2
FOURTH QUARTER	95.9	56.4	56.8	31.9	59.3	56.6
TOTAL 1993	371.2	214.1	223.6	122.8	60.2	57.4

**TABLE 1.1 - INTERSTATE SWITCHED ACCESS MINUTES (CONT'D)  
(FIGURES SHOWN IN BILLIONS)**

	TOTAL INDUSTRY		AT&T		AT&T'S SHARE OF	
	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES
1994 FIRST QUARTER	98.7	58.2	59.0	31.4	59.8 %	53.9 %
1994 SECOND QUARTER	97.9	58.3	57.7	31.1	59.0	53.3
1994 THIRD QUARTER	101.9	60.9	58.5	32.6	57.4	53.5
1994 FOURTH QUARTER	102.9	62.0	59.5	33.3	57.9	53.6
TOTAL 1994	401.4	239.4	234.7	128.3	58.5	53.6
1995 FIRST QUARTER	105.6	63.8	59.9	33.6	56.7	52.7
1995 SECOND QUARTER	106.8	64.7	59.3	33.5	55.5	51.8
1995 THIRD QUARTER	109.0	66.7	59.8	34.4	54.8	51.6
1995 FOURTH QUARTER	110.6	67.5	60.8	34.6	55.0	51.2
TOTAL 1995	431.9	262.7	239.8	136.1	55.5	51.8
1996 FIRST QUARTER	115.7	71.2	62.4	35.9	54.0	50.5
1996 SECOND QUARTER	114.7	71.5	60.2	35.1	52.4	49.0
1996 THIRD QUARTER	117.5	73.9	60.7	35.5	51.6	48.1
1996 FOURTH QUARTER	120.2	76.2	61.7	35.6	51.3	46.8
TOTAL 1996	468.1	292.8	244.9	142.1	52.3	48.6
1997 FIRST QUARTER	122.1	76.6	63.9	37.1	52.3	48.5
1997 SECOND QUARTER	124.4	79.2	63.2	37.1	50.8	46.8
1997 THIRD QUARTER	124.9	79.2	65.3	38.6	52.3	48.7
1997 FOURTH QUARTER	125.8	80.4	64.1	37.4	50.9	46.5
TOTAL 1997	497.3	315.4	256.5	150.2	51.6	47.6
1998 FIRST QUARTER	124.0	79.7	65.9	39.1	53.2	49.0
1998 SECOND QUARTER	131.4	84.6	67.0	37.6	51.0	44.4
1998 THIRD QUARTER	131.9	85.5	68.4	39.0	51.9	45.6
1998 FOURTH QUARTER	132.8	86.0	68.4	38.7	51.5	45.0
TOTAL 1998	520.1	335.9	269.8	154.3	51.9	45.9



## 2. PRESUBSCRIBED LINES

A telephone line is said to be presubscribed to the long distance carrier that receives the ordinary long distance calls placed on that line. In areas where equal access is available (areas now covering more than 99% of the nation's lines), customers may choose a long distance carrier. Thereafter, all of the customer's long distance calls are routed to the chosen carrier unless the customer alters normal dialing procedure. For example, the customer might dial a special code to reach an alternate long distance carrier. In areas where equal access is not yet available, all lines are considered presubscribed to AT&T. By the end of 1996, more than 600 companies were providing long distance service to their own presubscribed customers.

Information on the number of lines presubscribed to each long distance carrier was collected by NECA because FCC rules required NECA to recover certain expenses from the larger long distance carriers. A long distance carrier "qualified" for paying these expenses if the number of lines presubscribed to the carrier equaled or exceeded .05% of the nation's presubscribed lines. NECA filed information semi-annually with the Commission. This information is summarized in Table 2.1. Following passage of the Telecommunications Act of 1996, the FCC changed its rules on universal service. At the end of 1996, NECA stopped collecting the presubscribed line data used in this report. As a result, information for December 1996 is the last presubscribed line data collected by NECA.

As of December 1996, NECA reported 158.7 million presubscribed lines in the United States. Special access lines, WATS lines, 800 lines, and other specialized lines are not included in the counts of presubscribed lines. In addition, there are some customers who decide not to choose a long distance carrier and some customers who have toll-restricted lines. Those lines are also not in the count of presubscribed lines.

Table 2.2 lists the market share of presubscribed lines for the top four long distance carriers individually and a composite market share for all other carriers. As of year end 1996, about 63% of the nation's lines were presubscribed to AT&T, 15% to MCI, 7% to Sprint, and 3% to WorldCom.

In recent years, many incumbent local exchange carriers (ILECs) have entered the long distance market. Table 2.3 shows the number of ILECs with presubscribed lines in their own service areas, the number of study areas in which serving ILECs have presubscribed lines, and the ILECs' share of presubscribed lines in these areas.<sup>5</sup> The number of lines presubscribed for long distance service to ILECs in their own service areas has increased approximately 400 percent from year-end 1989 to year-end 1996, and the number of study areas in which ILECs provide interLATA long distance service has increased over 1,000 percent, for the same time period. In 1996, GTE began to offer long distance service. As a result, by the end of 1996 the number of lines located in areas where a customer could select a long distance carrier affiliated with the local telephone company increased to more than 30 million.

Table 2.4 shows the distribution of ILECs providing long distance service by the number of their own study areas in which they provided service. In 1989, only one ILEC provided long distance service in three or more of its study areas. By year-end 1996, this number had increased to six. These six ILECs provided long distance service in 186 study areas.

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<sup>5</sup>A study area is a local exchange carrier's operations in a given state.

**TABLE 2.1 - PRESUBSCRIBED TELEPHONE LINES BY CARRIER**

	DEC 96	JUNE 96	DEC 95	JUNE 95	DEC 94	JUNE 94
<b>TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES</b>	621	582	583	549	511	454
<b>TOTAL NUMBER OF QUALIFYING CARRIERS</b>	45	43	44	36	35	29
<b>TOTAL NUMBER OF NON-QUALIFYING CARRIERS</b>	576	539	539	513	476	425
<b>QUALIFYING COMPANIES 1/</b>						
AT&T COMPANIES:						
AT&T COMMUNICATIONS	100,177,257	99,599,355	101,138,792	102,502,271	103,957,425	102,421,583
AT&T ALASCOM, INC. 2/	224,192	222,144	218,135	232,525	226,974	222,142
MCI TELECOMMUNICATIONS CORP.	22,938,608	24,338,086	23,911,437	23,459,534	22,040,062	22,286,410
SOUTHERNET						
TELECOM*USA						
TELECONNECT						
SPRINT	11,788,717	10,905,940	9,784,388	9,589,788	9,467,999	9,244,159
LA CONEXION FAMILIAR, INC.						
LONG DISTANCE/USA						
WORLDCOM 3/	4,297,498	4,110,753	4,088,816	3,683,433	1,954,198	1,831,304
ADVANCED TELECOM CORP. (ATC)						
AMERICAN NETWORK						
CLAYDESTA DIGITAL						
COM SYSTEMS DBA SUN DIAL						
ITT						
METROMEDIA						
MICROTEL						
MID-AMERICAN						
NATIONAL TELECOMMUNICATIONS						
NTS (NATIONAL TELEPHONE SYSTEMS)						
TELUS/TELTEC SAVING						
TOUCH-1 LONG DISTANCE					320,571	161,143
WILTEL 4/					960,004	677,430
MFS INTELENET, INC.	211,085	177,648	106,489			
EXCEL TELECOMMUNICATIONS, INC.	3,792,171	3,313,287	1,486,953	223,235	75,543	
LCI COMPANIES:						
LCI INTERNATIONAL/LITEL 5/	2,244,192	1,965,532	1,227,925	840,968	638,464	614,937
LCI CORPORATE TELEMANAGEMENT GROUP			85,868			
LCI/US SIGNAL CORP. 6/			128,305	121,445	114,026	
FRONTIER COMPANIES: 7/	2,050,019	2,097,182	2,348,301			
FRONTIER dba ALLNET COMM. SVC., INC. 8/	(1,334,100)	(1,317,313)	(1,548,658)	1,650,296	1,334,360	1,078,577
FRONTIER COMMUNICATIONS INTL 9/	(488,074)	(441,493)	(436,609)	365,841	283,372	278,542
FRONTIER COMM-NORTH CENTRAL REGION 10/	(134,721)	(150,661)	(161,242)	154,038	132,946	
FRONTIER OF THE GREAT LAKES 11/	(93,124)	(97,277)	(95,633)	88,043	84,141	80,573
FRONTIER OF THE WEST 12/		(90,438)	(106,159)	133,300	137,489	144,240
SNET AMERICA LONG DISTANCE	783,135	597,251	304,391	223,844	105,855	
GTE LONG DISTANCE CO.	733,558	169,609				
CABLE & WIRELESS COMMUNICATIONS	625,367	584,802	543,617	524,014	524,153	537,919
TELEFONICA LARGA DISTANCIA	470,267	458,783	452,017	444,205	441,467	446,390
U.S. LONG DISTANCE/ZERO PLUS	356,932	276,153	212,611	149,308	116,602	
UNITED TELEPHONE LONG DISTANCE	289,380	471,687	517,379	545,189	572,010	612,991
TOUCH 1 COMMUNICATIONS	209,905	149,392	134,779	108,550		
CITIZENS TELECOM	206,698	141,636				
LONG DISTANCE SAVERS	185,247	170,359	158,001	151,473	141,697	128,716
BUSINESS TELECOM , INC. (BTI)	177,423	171,239	146,118	132,196	121,822	100,808
INTER CONTINENTAL TELEPHONE	160,084	117,780	134,572	120,932	99,033	84,534
L.D. SERVICES, INC.	143,601	116,239	99,557	90,774		
COASTAL TELEPHONE COMPANY	141,358	133,108	97,917			
NATIONAL TELEPHONE COMMUNICATIONS, INC.	139,185					
VARTEC TELECOM, INC.	137,594	116,898	120,832	136,568	122,991	130,738
CINCINNATI BELL LONG DISTANCE INC.	134,506	120,710	115,398	102,634	102,163	92,302
GENERAL COMMUNICATIONS, INC.	130,994	124,969	119,883	102,813	102,528	102,202
ALLTEL LONG DISTANCE	127,563	78,401				
SWITCHED SERVICES COMMUNICATIONS 13/	126,721					
TELAMERICA, INC.	124,628	122,093	115,403	109,463	105,053	100,282
ATX TELECOMMUNICATIONS SERVICES	122,297	119,843	118,637	113,466	107,979	110,023
ONE CALL COMMUNICATIONS	120,952	110,352	93,613	78,328		
AMERIVISION COMMUNICATIONS	117,120					
CENTURY AREA LONG LINES	116,708	104,143				
ACCESS LONG DISTANCE	107,423	101,914	90,562	81,438		
OCI (ONCOR)	106,742	116,046	128,209	148,918	161,085	163,972
INTERNATIONAL TELECHARGE						
COMMONWEALTH LONG DISTANCE (CLD)	103,421	109,349	139,414	146,663	147,045	125,682
AMERICAN TELCO, INC.	99,806	89,783	83,402			
TWT-HEARTLINE	97,531	118,455	117,739			72,803
ACC LONG DISTANCE CORPORATION	87,667	80,795	79,652		74,482	
MATRIX TELECOM	85,971	89,689	91,031			
TRESCOM INTERNATIONAL, INC.	84,766					
DELTA COM L.D.S.	83,580					
WINSTAR GATEWAY NETWORK, INC		109,991	86,652			
MIDCOM COMMUNICATIONS		79,472	81,386	102,076		
COMMUNIQUE TELECOM					188,295	197,874
WORLDXCHANGE 14/			140,610	127,839	156,055	79,270
CHERRY COMMUNICATIONS			104,367	93,746		
LINTEL (LINCOLN)			79,281	81,010	85,496	88,136
SONIC COMMUNICATIONS 15/					114,041	
TELESPHERE NETWORK 15/						
PUERTO RICO TEL-COM						
NETECH COMM, US WEST						
<b>TOTAL QUALIFYING CARRIERS</b>	<b>154,461,869</b>	<b>152,080,868</b>	<b>149,232,439</b>	<b>146,960,164</b>	<b>145,317,426</b>	<b>142,215,682</b>
<b>NON-QUALIFYING CARRIERS</b>	<b>4,210,374</b>	<b>3,920,356</b>	<b>3,368,738</b>	<b>3,384,888</b>	<b>3,161,902</b>	<b>3,013,060</b>
<b>TOTAL INDUSTRY PRESUBSCRIBED LINES</b>	<b>158,672,243</b>	<b>156,001,224</b>	<b>152,601,177</b>	<b>150,345,052</b>	<b>148,479,328</b>	<b>145,228,742</b>



TABLE 2.1 - PRESUBSCRIBED TELEPHONE LINES BY CARRIER (CONT'D)

	DEC 93	JUNE 93	DEC 92	JUNE 92	DEC 91	JUNE 91
<b>TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES</b>	436	412	414	425	388	355
<b>TOTAL NUMBER OF QUALIFYING CARRIERS</b>	27	28	28	24	22	24
<b>TOTAL NUMBER OF NON-QUALIFYING CARRIERS</b>	409	384	386	401	366	331
<b>QUALIFYING COMPANIES 1/</b>						
AT&T COMPANIES:						
AT&T COMMUNICATIONS	101,711,178	101,770,741	101,203,888	101,384,413	101,498,260	101,013,529
AT&T ALASCOM, INC. 2/	216,964	218,225	209,850	203,832	203,105	196,244
MCI TELECOMMUNICATIONS CORP.	21,818,212	21,170,832	20,167,298	19,189,649	18,329,870	17,603,453
SOUTHERNET						
TELECOM*USA						
TELECONNECT						
SPRINT						
LA CONEXION FAMILIAR, INC.	9,212,993	8,621,177	8,856,004	8,424,303	8,353,583	8,702,085
LONG DISTANCE/USA			71,327	72,555		
WORLDCOM 3/						
ADVANCED TELECOM CORP. (ATC)	1,752,616	931,553	482,043	338,820	332,244	134,043
AMERICAN NETWORK			440,961	331,136	333,152	334,157
CLAYDESTA DIGITAL						
COM SYSTEMS DBA SUN DIAL		134,950	126,190	117,571	116,326	119,034
ITT						
METROMEDIA		538,362	494,864	468,698	476,128	497,187
MICROTEL						
MID-AMERICAN						
NATIONAL TELECOMMUNICATIONS						91,417
NTS (NATIONAL TELEPHONE SYSTEMS)						
TELUS/TELTEC SAVING						
TOUCH-1 LONG DISTANCE	98,044	105,244	110,929			
WILTEL 4/	432,844	339,960	191,076	116,501	87,758	
MFS INTELENET, INC.						
EXCEL TELECOMMUNICATIONS, INC.						
LCI COMPANIES:						
LCI INTERNATIONAL/LITEL 5/	405,644	359,575	338,496	226,350	186,884	163,089
LCI CORPORATE TELEMAGEMENT GROUP						
LCI/US SIGNAL CORP. 6/	109,071	93,155	77,096			
FRONTIER COMPANIES: 7/						
FRONTIER dba ALLNET COMM. SVC., INC. 8/	891,577	846,961	859,499	830,548	813,748	775,847
FRONTIER COMMUNICATIONS INT'L 9/	279,304	260,760	252,495	240,670	190,382	180,321
FRONTIER COMM-NORTH CENTRAL REGION 10/						
FRONTIER OF THE GREAT LAKES 11/	77,699	76,521	71,059			
FRONTIER OF THE WEST 12/	96,539					
SNET AMERICA LONG DISTANCE						
GTE LONG DISTANCE CO.						
CABLE & WIRELESS COMMUNICATIONS	529,398	522,112	513,419	490,228	466,935	448,951
TELEFONICA LARGA DISTANCIA	442,922	436,695	432,701	425,334	419,293	393,034
U.S. LONG DISTANCE/ZERO PLUS						
UNITED TELEPHONE LONG DISTANCE	648,131	625,831	639,341	626,850	596,114	590,187
TOUCH 1 COMMUNICATIONS						
CITIZENS TELECOM						
LONG DISTANCE SAVERS	112,905	98,514	87,687	80,839	77,568	73,696
BUSINESS TELECOM , INC. (BTI)	79,396					
INTER CONTINENTAL TELEPHONE						
L.D. SERVICES, INC.						
COASTAL TELEPHONE COMPANY						
NATIONAL TELEPHONE COMMUNICATIONS, INC.						
VARTEC TELECOM, INC.	117,692	77,258				
CINCINNATI BELL LONG DISTANCE INC.	93,659	93,014	90,841	85,974	79,182	74,387
GENERAL COMMUNICATIONS, INC.	99,911	91,812	97,798	94,229	93,233	90,252
ALLTEL LONG DISTANCE						
SWITCHED SERVICES COMMUNICATIONS 13/						
TELAMERICA, INC.	94,114	92,719	92,860	91,460	85,801	90,887
ATX TELECOMMUNICATIONS SERVICES	104,971	86,186	82,303	70,246		
ONE CALL COMMUNICATIONS						
AMERIVISION COMMUNICATIONS						
CENTURY AREA LONG LINES						
ACCESS LONG DISTANCE						
OCI (ONCOR)	144,511	106,625	87,593			
INTERNATIONAL TELECHARGE					72,813	82,085
COMMONWEALTH LONG DISTANCE (CLD)	113,072	103,407	103,684	93,241		
AMERICAN TELCO, INC.						
TWT-HEARTLINE						
ACC LONG DISTANCE CORPORATION						
MATRIX TELECOM						
TRESKOM INTERNATIONAL, INC.						
DELTACOM L.D.S.						
WINSTAR GATEWAY NETWORK, INC						
MIDCOM COMMUNICATIONS						
COMMUNIQUE TELECOM	189,781	161,398	148,865	133,090	106,892	93,809
WORLDXCHANGE 14/						
CHERRY COMMUNICATIONS						
LINTEL (LINCOLN)	90,146	91,420	93,427	93,562	94,183	96,415
SONIC COMMUNICATIONS 15/						
TELESPHERE NETWORK 15/						94,666
PUERTO RICO TEL-COM						79,146
NETECH COMM, US WEST		107,063				
<b>TOTAL QUALIFYING CARRIERS</b>	<b>139,963,294</b>	<b>138,162,070</b>	<b>136,423,594</b>	<b>134,230,099</b>	<b>133,013,454</b>	<b>132,017,921</b>
<b>NON-QUALIFYING CARRIERS</b>	<b>2,845,986</b>	<b>2,452,609</b>	<b>2,301,446</b>	<b>2,473,551</b>	<b>2,273,128</b>	<b>1,878,542</b>
<b>TOTAL INDUSTRY PRESUBSCRIBED LINES</b>	<b>142,809,280</b>	<b>140,614,679</b>	<b>138,725,040</b>	<b>136,703,650</b>	<b>135,286,582</b>	<b>133,896,463</b>

TABLE 2.1 - PRESUBSCRIBED TELEPHONE LINES BY CARRIER

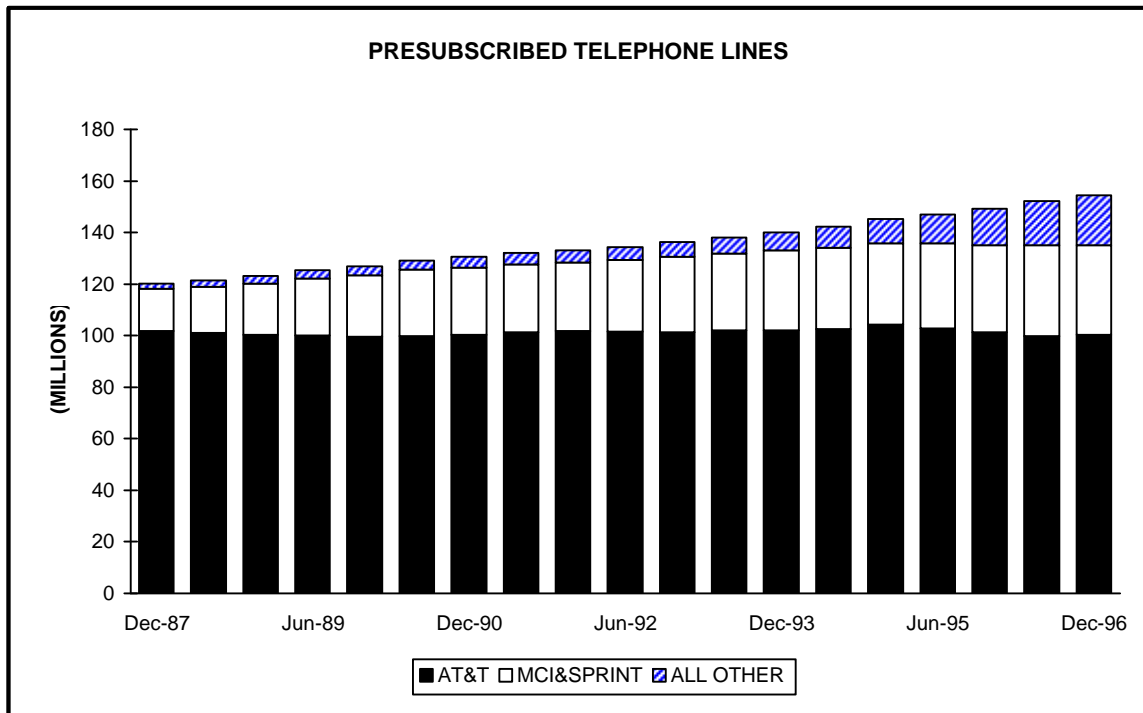
	DEC 90	JUNE 90	DEC 89	JUNE 89	DEC 88	JUNE 88	DEC 87
<b>TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES</b>	325	314	302	276	253	242	223
<b>TOTAL NUMBER OF QUALIFYING CARRIERS</b>	21	20	20	21	21	20	19
<b>TOTAL NUMBER OF NON-QUALIFYING CARRIERS</b>	304	294	282	255	232	222	204
<b>QUALIFYING COMPANIES 1/</b>							
<b>AT&amp;T COMPANIES:</b>							
AT&T COMMUNICATIONS	100,061,611	99,612,725	99,396,609	100,006,827	100,205,677	100,832,869	101,652,678
AT&T ALASCOM, INC. 2/	182,341	179,175	168,095	165,332	161,572	157,250	152,040
MCI TELECOMMUNICATIONS CORP.	17,434,898	16,864,001	15,055,643	13,671,625	12,149,921	10,941,207	9,990,561
SOUTHERNET					215,384	199,093	183,769
TELECOM*USA		712,263	646,084	533,516			
TELECONNECT					247,042	211,949	156,614
SPRINT	8,743,988	8,148,013	8,167,638	7,674,605	7,197,136	6,382,372	5,836,179
LA CONEXION FAMILIAR, INC.							
LONG DISTANCE/USA						81,692	85,680
WORLDCOM 3/	116,864	70,781	66,576				
ADVANCED TELECOM CORP. (ATC)	355,518	372,260	396,319	262,542			
AMERICAN NETWORK							95,926
CLAYDESTA DIGITAL					96,914	78,804	71,794
COM SYSTEMS DBA SUN DIAL	118,963	118,225	89,081	87,520	62,773		
ITT		360,551	412,197	425,109	420,793	394,707	279,549
METROMEDIA	515,711	198,374	207,599	209,036	215,181	211,210	215,485
MICROTEL					70,273	63,587	
MID-AMERICAN				89,367	97,526	100,113	96,384
NATIONAL TELECOMMUNICATIONS							
NTS (NATIONAL TELEPHONE SYSTEMS)		67,129	77,667	65,692			
TELUS/TELTEC SAVING				134,150	125,339	117,191	105,243
TOUCH-1 LONG DISTANCE							
WILTEL 4/							
MFS INTELENET, INC.							
EXCEL TELECOMMUNICATIONS, INC.							
<b>LCI COMPANIES:</b>							
LCI INTERNATIONAL/LITEL 5/	144,926	137,164	123,748	107,302	92,014		
LCI CORPORATE TELEMAGEMENT GROUP							
LCI/US SIGNAL CORP. 6/							
<b>FRONTIER COMPANIES: 7/</b>							
FRONTIER dba ALLNET COMM. SVC., INC. 8/	744,452	709,876	677,531	687,097	763,680	818,080	726,974
FRONTIER COMMUNICATIONS INTL 9/	171,198	150,069	113,329	98,334	83,383	63,574	
FRONTIER COMM-NORTH CENTRAL REGION 10/							
FRONTIER OF THE GREAT LAKES 11/							
FRONTIER OF THE WEST 12/							
<b>SNET AMERICA LONG DISTANCE</b>							
GTE LONG DISTANCE CO.							
CABLE & WIRELESS COMMUNICATIONS	422,534	407,906	394,020	358,290	304,976	256,786	236,000
TELEFONICA LARGA DISTANCIA	375,694						
U.S. LONG DISTANCE/ZERO PLUS							
UNITED TELEPHONE LONG DISTANCE	548,303	524,477	513,033	430,550	285,385	167,025	82,602
TOUCH 1 COMMUNICATIONS							
CITIZENS TELECOM							
LONG DISTANCE SAVERS							
BUSINESS TELECOM, INC. (BTI)							
INTER CONTINENTAL TELEPHONE							
L.D. SERVICES, INC.							
COASTAL TELEPHONE COMPANY							
NATIONAL TELEPHONE COMMUNICATIONS, INC.							
VARTEC TELECOM, INC.							
CINCINNATI BELL LONG DISTANCE INC.	67,689						
GENERAL COMMUNICATIONS, INC.	88,360	82,386	86,089	85,773	83,468	84,807	89,338
ALLTEL LONG DISTANCE							
SWITCHED SERVICES COMMUNICATIONS 13/							
TELAMERICA, INC.	101,968	102,530	100,213	99,038	90,570	94,654	94,292
ATX TELECOMMUNICATIONS SERVICES							
ONE CALL COMMUNICATIONS							
AMERIVISION COMMUNICATIONS							
CENTURY AREA LONG LINES							
ACCESS LONG DISTANCE							
OCI (ONCOR)							
INTERNATIONAL TELECHARGE	83,725	87,751	95,252	71,346			
COMMONWEALTH LONG DISTANCE (CLD)							
AMERICAN TELCO, INC.							
TWT-HEARTLINE							
ACC LONG DISTANCE CORPORATION							
MATRIX TELECOM							
TRESCOM INTERNATIONAL, INC.							
DELTACOM L.D.S.							
WINSTAR GATEWAY NETWORK, INC							
MIDCOM COMMUNICATIONS							
COMMUNIQUE TELECOM							
WORLDXCHANGE 14/							
CHERRY COMMUNICATIONS							
LINTEL (LINCOLN)	99,594	95,126	96,966	93,353	94,031	92,636	93,352
SONIC COMMUNICATIONS 15/							
TELESPHERE NETWORK 15/	111,386						
PUERTO RICO TEL-COM	99,821						
NETECH COMM, US WEST							
<b>TOTAL QUALIFYING CARRIERS</b>	<b>130,589,544</b>	<b>129,000,782</b>	<b>126,883,689</b>	<b>125,356,404</b>	<b>123,063,038</b>	<b>121,349,606</b>	<b>120,244,460</b>
<b>NON-QUALIFYING CARRIERS</b>	<b>1,819,064</b>	<b>1,776,233</b>	<b>1,598,790</b>	<b>1,390,131</b>	<b>1,297,791</b>	<b>1,315,809</b>	<b>1,222,040</b>
<b>TOTAL INDUSTRY PRESUBSCRIBED LINES</b>	<b>132,408,608</b>	<b>130,777,015</b>	<b>128,482,479</b>	<b>126,746,535</b>	<b>124,360,829</b>	<b>122,665,415</b>	<b>121,466,500</b>

### **Notes for Table 2.1 - Presubscribed Telephone Lines by Carrier**

- 1/ Information for each qualifying company is only shown for years in which the carrier had at least 0.05% of overall presubscribed lines.
- 2/ Purchased by AT&T in 1995.
- 3/ LDDS/WorldCom changed its name to WorldCom, Inc. in May 1995.
- 4/ WorldCom and Wiltel merged on January 5, 1995.
- 5/ Name changed from Litel, December 1994.
- 6/ Name changed from Teledial America, December 1994.
- 7/ The total number of presubscribed lines reported by Frontier in 1995 and 1996 are only for those subsidiaries which meet the qualifying companies' threshold noted in footnote 1 above.
- 8/ Purchased by Frontier in 1995.
- 9/ Name changed to RCI, December 1994.
- 10/ Formerly American Sharecom; purchased by Frontier in 1995.
- 11/ Formerly Schneider Communications; purchased by Frontier in 1995.
- 12/ Formerly West Coast Telecommunications; purchased by Frontier in 1995.
- 13/ Subsidiary of IXC Communications.
- 14/ Name changed from Communications Telesystems International (CTI) in 1995.
- 15/ Company went bankrupt.

**TABLE 2.2 - MARKET SHARE OF PRESUBSCRIBED LINES**

		AT&T	MCI	SPRINT	WORLD COM	OTHER CARRIERS
1987	DEC	83.7 %	8.2 %	4.8 %		3.3 %
1988	JUNE	82.2	8.9	5.2		3.7
	DEC	80.6	9.8	5.8		3.9
1989	JUNE	78.9	10.8	6.1	0.0 %	4.3
	DEC	77.4	11.7	6.4	0.1	4.5
1990	JUNE	76.2	12.9	6.2	0.1	4.7
	DEC	75.6	13.2	6.6	0.1	4.6
1991	JUNE	75.4	13.1	6.5	0.1	4.8
	DEC	75.0	13.5	6.2	0.2	5.0
1992	JUNE	74.2	14.0	6.2	0.2	5.4
	DEC	73.0	14.5	6.4	0.3	5.8
1993	JUNE	72.4	15.1	6.1	0.7	5.8
	DEC	71.2	15.3	6.5	1.2	5.8
1994	JUNE	70.5	15.3	6.4	1.3	6.5
	DEC	70.0	14.8	6.4	1.3	7.4
1995	JUNE	68.2	15.6	6.4	2.4	7.4
	DEC	66.4	15.7	6.4	2.7	8.8
1996	JUNE	64.0	15.6	7.0	2.6	10.8
	DEC	63.3	14.5	7.4	2.7	12.1



**TABLE 2.3 - SHARE OF LINES SERVED BY ILECS IN THEIR OWN LOCAL SERVICE AREAS**

<b>Year</b>	<b>ILECs with Presubscribed Lines in their own service areas</b>	<b>Study Areas with Lines Presubscribed to the serving ILEC</b>	<b>Lines Presubscribed to ILECs in their own service areas</b>	<b>Total Lines in Study Areas with Lines Presubscribed to the serving ILEC</b>	<b>ILEC's Share of Total Lines</b>
1989	7	21	861,174	4,982,221	17.3 %
1990	9	25	957,969	5,275,279	18.2
1991	12	37	1,101,824	5,922,057	18.6
1992	18	55	1,422,150	7,989,993	17.8
1993	28	75	1,628,055	10,564,681	15.4
1994	42	101	1,819,772	11,357,655	16.0
1995	48	141	2,269,976	12,789,604	17.7
1996	66	254	4,020,982	31,016,942	13.0

**TABLE 2.4 - DISTRIBUTION OF ILECS BY NUMBER OF AREAS IN WHICH THEY PROVIDE BOTH LOCAL AND LONG DISTANCE SERVICE**

<b>Year</b>	<b>ILECs Serving 1 Study Area</b>	<b>ILECs Serving 2 Study Areas</b>	<b>ILECs Serving 3 to 10 Study Areas</b>	<b>ILECs Serving 11 to 24 Study Areas</b>	<b>ILECs Serving 25 or More Study Areas</b>	<b>Total</b>
1989	4	2	0	1	0	7
1990	5	3	0	1	0	9
1991	8	2	1	1	0	12
1992	12	3	2	1	0	18
1993	21	4	1	2	0	28
1994	33	6	0	3	0	42
1995	37	7	1	1	2	48
1996	52	8	0	2	4	66

### 3. TOLL REVENUES

The larger long distance telephone companies (those with \$112 million or more in annual operating revenues for calendar year 1997) are required to report their annual revenues to the FCC. Unlike the information on switched access minutes, which excludes intrastate toll calls, reported revenues include intrastate calls, along with other domestic and interstate calls. For most carriers, no information is publicly available that separates their revenues into interstate versus intrastate service. In 1997, services provided by long distance carriers generated over \$88 billion in revenue. These revenues are shown in Table 3.1.<sup>6</sup> Table 3.1 also contains toll revenues reported by the larger local telephone companies, which provide a substantial amount of intrastate toll service. In 1997, revenues reported by local telephone companies was approximately \$10 billion.<sup>7</sup> When combined, the toll revenues for both local and long distance telephone companies reached nearly \$99 billion in 1997.

In 1997, AT&T's revenues were \$39 billion, having grown slightly from \$35 billion in 1984. MCI's revenues grew from almost \$2 billion in 1984 to over \$17 billion in 1997. Sprint's revenues grew from about \$1 billion in 1984 to about \$9 billion in 1997. WorldCom's revenues, which were first reported to the FCC in 1989, have grown from \$110 million to nearly \$6 billion. In 1997, four other companies, Excel, Frontier, LCI, and Cable & Wireless also had long distance revenues exceeding \$1 billion.

Table 3.2 shows market share information based on revenues for long distance carriers. AT&T's 1984 toll revenues accounted for about 90% of the revenues received by all long distance carriers. In 1997, AT&T's revenues accounted for a little over 44% of all long distance carrier revenues. MCI's long distance carrier market share has increased from over 5% in 1984 to over 19% in 1997. Sprint's long distance carrier market share has increased from 3% in 1984 to 10% in 1997. WorldCom's long distance carrier market share has increased from slightly more than 0% in 1989 to 7% in 1997. Smaller long distance carriers increased their share of the market nearly seven-fold, growing from less than 3% in 1984 to 20% in 1997.

Table 3.3 shows market share information based on revenues for long distance carriers including toll revenues collected by local exchange carriers. AT&T's toll revenues, which accounted for about 68% of all toll calling in 1984, fell to 40% in 1997.

Tables 3.2 and 3.3 also contain annual Hirschman-Herfindahl Indices (HHI). The HHI is the sum of squares of the market shares of the companies in a particular industry and is used by the Department of Justice to measure changes in industry concentration resulting from horizontal mergers or acquisitions. Since 1984, the HHI has fallen dramatically from 8,155 to 2,508 when calculated based on long distance carrier revenue. The HHI for the total toll market, which includes toll revenues for both long distance carriers and local exchange companies, has fallen from 4,734 to 2,048 over the same period of time.

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<sup>6</sup>The revenue information for long distance telephone companies, shown in Table 3.1, is reported annually to the FCC. The revenues received by long distance carriers that are too small to file revenue reports with the FCC are estimated by the FCC staff.

<sup>7</sup>The revenue information for local exchange telephone companies, shown in Table 3.1, is taken from annual ARMIS (Automated Reporting Management Information System) USOA reports to the FCC (FCC Report 43-02). Revenues for local exchange carriers too small to file reports with the FCC are estimated by the FCC staff.

Table 3.4 shows annual toll revenues divided into three toll categories: intrastate, domestic interstate, and international.<sup>8</sup> Though the total toll revenue figures are composed mostly of telephone service revenues, they also include revenues generated from telegraph, telex, and private line services. The intrastate toll figure includes both intraLATA and interLATA toll revenues. Of considerable interest is the enormous growth (almost 400%) in the international toll market from 1984 to 1997.

Quarterly reports to stockholders (the source for SEC 10Q filings) represent an alternative source of data on revenues. There are, however, usually differences between revenues reported to the FCC and the revenues reported to stockholders. These differences are related to the treatment of access charges, international settlements, and miscellaneous communications revenues that carriers include in the financial reports to stockholders but exclude in reports to the FCC. Quarterly market share estimates based on financial reports to shareholders are shown in Table 3.5 and are similar to the results produced from annual data.<sup>9</sup>

In 1976, AT&T and local exchange carrier (LEC) revenues constituted more than 99% of all long distance telephone service revenues. Over time, these traditional carriers have lost market share to new entrants in the long distance market. In the third quarter of 1998 new entrants' long distance revenues constituted nearly 50% of all long distance telephone service. In Table 3.6, along with the market shares of new entrants, long distance revenues are presented for both traditional carriers and new entrants in the long distance market. LEC long distance revenues are also provided in Table 3.6 along with new entrant revenues as a fraction of all non-LEC revenues.

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<sup>8</sup>The total toll revenue figures reported in Table 3.4 are taken from Table 3.1. The total international revenue figures, which become available for each year in the second half of the following year, are taken from Table 1 in the *Trends in the International Telecommunications Industry* report published by the FCC. This revenue information includes facilities-based, facilities-resale, and pure resale revenue. Domestic revenues are divided between the intrastate and interstate jurisdictions based on FCC staff estimates and revenue divisions reported in the FCC report *Telecommunications Industry Revenue*.

<sup>9</sup>Quarterly revenue information for AT&T, MCI, Sprint, and WorldCom, shown in Table 3.5, is based on initial reports to stockholders. Quarterly revenue figures for all other carriers are estimated by the FCC staff. Accounting differences have caused some inconsistencies in the revenue measures over time. For example, AT&T, which has been subject to the FCC's Uniform System of Accounts (USA), and MCI, which has chosen to report in a similar manner, have deducted settlement payments to foreign correspondents and added settlement receipts from foreign correspondents before reporting revenues to the FCC, but have not netted out settlement payments and receipts when reporting revenues to stockholders. When carrier reporting detail permits, inconsistencies are eliminated.

**TABLE 3.1 - TOTAL OPERATING REVENUES OF LONG DISTANCE SERVICE PROVIDERS**

COMPANY	1997	1996	1995	1994	1993	1992	1991
AT&T COMPANIES 1/ AT&T COMMUNICATIONS, INC.	\$39,470	\$39,264	\$38,069	\$37,166	\$35,731	\$35,495	\$34,384
ALASCOM, INC.			325	329	320	333	338
MCI COMPANIES 2/ MCI COMMUNICATIONS CORP.	17,150	16,372	14,617	11,715	10,947	9,719	8,266
TELECOM*USA							
SPRINT COMPANIES 3/ SPRINT COMMUNICATIONS CO.	8,595	7,944	7,277	6,805	6,139	5,658	5,378
GTE SPRINT							
US TELECOM							
WORLDCOM COMPANIES 4/ WORLDCOM, INC.	5,897	4,485	3,640	2,221	1,145	801	263
ADVANCED TELECOMMUNICATIONS CORP.							356
METROMEDIA COMMUNICATIONS CORP.					297	369	369
ITT COMMUNICATION SERVICES, INC.							
COMSYSTEMS NETWORK SERVICES					116	135	131
WILTEL, INC.				917	664	494	405
MFS INTELENET, INC.		122	118				
EXCEL COMPANIES 5/ EXCEL TELECOMMUNICATIONS, INC.	1,180	1,091	363	156			
TELCO HOLDINGS, INC.	379	429	215				
LONG DISTANCE WHOLESALE GROUP	176						
FRONTIER COMPANIES 6/ ALLNET COMM. SVCS. dba FRONTIER COMM. SVCS.	775	1,119	827	568	436	376	347
LEXITEL							
FRONTIER COMMUNICATIONS INT'L, INC.	223	323	309	306	213	168	155
FRONTIER COMMUNICATIONS OF THE WEST, INC.	324		127	144			
FRONTIER COMM. OF THE NORTH CENTRAL REGION		121	133	123			
LCI COMPANIES 7/ LCI INTERNATIONAL TELECOM CORP.	1,001	1,103	671	453	317	243	208
USLD COMMUNICATIONS CORP.	241	188	155	136	100		
CABLE & WIRELESS, INC.	1,066	919	700	654	557	495	406
VARTEC TELECOM, INC.	820	470	125	107			
STAR TELECOMMUNICATIONS, INC.	376	208					
PT-1 COMMUNICATIONS, INC.	358	117					
COMMUNICATION TELESYSTEMS INT'L.	345	196	115				
GTE COMMUNICATIONS CORP.	340						
TELEGROUP, INC.	337	213	129				
TEL-SAVE, INC.	305	232	180				
PACIFIC GATEWAY EXCHANGE, INC.	299	162					
IXC LONG DISTANCE, INC.	258						
WILLIAMS COMMUNICATIONS, INC.	227						
BUSINESS TELECOM, INC. 8/ RSL COMMUNICATIONS, LTD.	195	149	115				
CHERRY COMMUNICATIONS, INC. 9/ GENERAL COMMUNICATION, INC.	180	354		106	92		
TRESCOM INTERNATIONAL, INC.	158	143	120				
SNET AMERICA, INC.	158	140					
TOTAL-TEL USA COMMUNICATIONS, INC.	142						
ACC LONG DISTANCE CORP.	123						
ONE CALL COMMUNICATIONS, INC.	122	118					
MIDCOM COMMUNICATIONS, INC. 10/ GE CAPITAL COMMUNICATIONS SERVICES CORP.	118	114					
ONCOR COMMUNICATIONS, INC.		149	204	109			
THE FURST GROUP, INC.			120				
AMERICAN NETWORK EXCHANGE, INC.			111	172	140	159	181
TELESPHERE NETWORK, INC. 11/ NATIONAL TELEPHONE SERVICES, INC.			109	101			
OTHERS 12/	7,097	5,788	5,168	5,055	4,319	3,923	2,948
<b>TOTAL LONG DISTANCE CARRIERS</b>	<b>88,627</b>	<b>82,033</b>	<b>74,143</b>	<b>67,351</b>	<b>61,533</b>	<b>58,368</b>	<b>54,443</b>
<b>TOLL SERVICE REVENUES:</b>							
BELL OPERATING COMPANIES	7,138	7,950	8,189	9,527	9,849	9,718	10,066
OTHER LOCAL TELEPHONE COMPANIES 12/	2,804	3,298	3,143	3,848	3,908	3,897	4,049
<b>TOTAL LOCAL EXCHANGE COMPANIES</b>	<b>9,942</b>	<b>11,248</b>	<b>11,332</b>	<b>13,375</b>	<b>13,757</b>	<b>13,615</b>	<b>14,115</b>
<b>TOTAL REVENUES OF LONG DISTANCE SERVICE PROVIDERS</b>	<b>\$98,569</b>	<b>\$93,281</b>	<b>\$85,475</b>	<b>\$80,726</b>	<b>\$75,290</b>	<b>\$71,983</b>	<b>\$68,558</b>



**TABLE 3.1 - TOTAL OPERATING REVENUES OF LONG DISTANCE SERVICE PROVIDERS**

COMPANY	1990	1989	1988	1987	1986	1985	1984
AT&T COMPANIES 1/ AT&T COMMUNICATIONS, INC.	\$33,880	\$34,549	\$35,407	\$35,219	\$36,514	\$36,770	\$34,935
ALASCOM, INC.	259	278	272	262	267	271	255
MCI COMPANIES 2/ MCI COMMUNICATIONS CORP.	7,392	6,171	4,886	3,938	3,372	2,331	1,761
TELECOM*USA		713	524	396	291	201	105
SPRINT COMPANIES 3/ SPRINT COMMUNICATIONS CO.	5,041	4,320	3,405	2,592	1,141		
GTE SPRINT					779	1,122	1,052
US TELECOM					212	387	
WORLDCOM COMPANIES 4/ WORLDCOM, INC.	154	110					
ADVANCED TELECOMMUNICATIONS CORP.	342	326	178	162	124	86	72
METROMEDIA COMMUNICATIONS CORP.	381	127					
ITT COMMUNICATION SERVICES, INC.		404	379	287	282	241	161
COMSYSTEMS NETWORK SERVICES	130						
WILTEL, INC.	376	300					
MFS INTELENET, INC.							
EXCEL COMPANIES 5/ EXCEL TELECOMMUNICATIONS, INC.							
TELCO HOLDINGS, INC.							
LONG DISTANCE WHOLESALE GROUP							
FRONTIER COMPANIES 6/ ALLNET COMM. SVCS. dba FRONTIER COMM. SVCS.	326	334	394	395	450	309	
LEXITEL						127	
FRONTIER COMMUNICATIONS INT'L, INC.	142	104					
FRONTIER COMMUNICATIONS OF THE WEST, INC.							
FRONTIER COMM. OF THE NORTH CENTRAL REGION							
LCI COMPANIES 7/ LCI INTERNATIONAL TELECOM CORP.	215	197					
USLD COMMUNICATIONS CORP.							
CABLE & WIRELESS, INC.	359	275	218	180	171	146	
VARTEC TELECOM, INC.							
STAR TELECOMMUNICATIONS, INC.							
PT-1 COMMUNICATIONS, INC.							
COMMUNICATION TELESYSTEMS INT'L.							
GTE COMMUNICATIONS CORP.							
TELEGROUP, INC.							
TEL-SAVE, INC.							
PACIFIC GATEWAY EXCHANGE, INC.							
IXC LONG DISTANCE, INC.							
WILLIAMS COMMUNICATIONS, INC.							
BUSINESS TELECOM, INC. 8/ RSL COMMUNICATIONS, LTD.							
CHERRY COMMUNICATIONS, INC. 9/ GENERAL COMMUNICATION, INC.							
TRESCOM INTERNATIONAL, INC.							
SNET AMERICA, INC.							
TOTAL-TEL USA COMMUNICATIONS, INC.							
ACC LONG DISTANCE CORP.							
ONE CALL COMMUNICATIONS, INC.							
MIDCOM COMMUNICATIONS, INC. 10/ GE CAPITAL COMMUNICATIONS SERVICES CORP.							
ONCOR COMMUNICATIONS, INC.	230	275					
THE FURST GROUP, INC.							
AMERICAN NETWORK EXCHANGE, INC.							
TELESPHERE NETWORK, INC. 11/ NATIONAL TELEPHONE SERVICES, INC.	293	192	150				
OTHERS 12/	2,582	2,359	1,823	1,352	992	639	414
<b>TOTAL LONG DISTANCE CARRIERS</b>	<b>52,102</b>	<b>51,184</b>	<b>47,487</b>	<b>44,783</b>	<b>44,595</b>	<b>42,630</b>	<b>38,755</b>
<b>TOLL SERVICE REVENUES:</b>							
BELL OPERATING COMPANIES	10,578	10,549	10,668	10,268	9,599	9,026	9,037
OTHER LOCAL TELEPHONE COMPANIES 12/	4,112	4,291	4,445	3,468	3,274	3,159	3,364
<b>TOTAL LOCAL EXCHANGE COMPANIES</b>	<b>14,690</b>	<b>14,840</b>	<b>15,113</b>	<b>13,736</b>	<b>12,873</b>	<b>12,185</b>	<b>12,401</b>
<b>TOTAL REVENUES OF LONG DISTANCE SERVICE PROVIDERS</b>	<b>\$66,792</b>	<b>\$66,024</b>	<b>\$62,600</b>	<b>\$58,519</b>	<b>\$57,468</b>	<b>\$54,815</b>	<b>\$51,156</b>

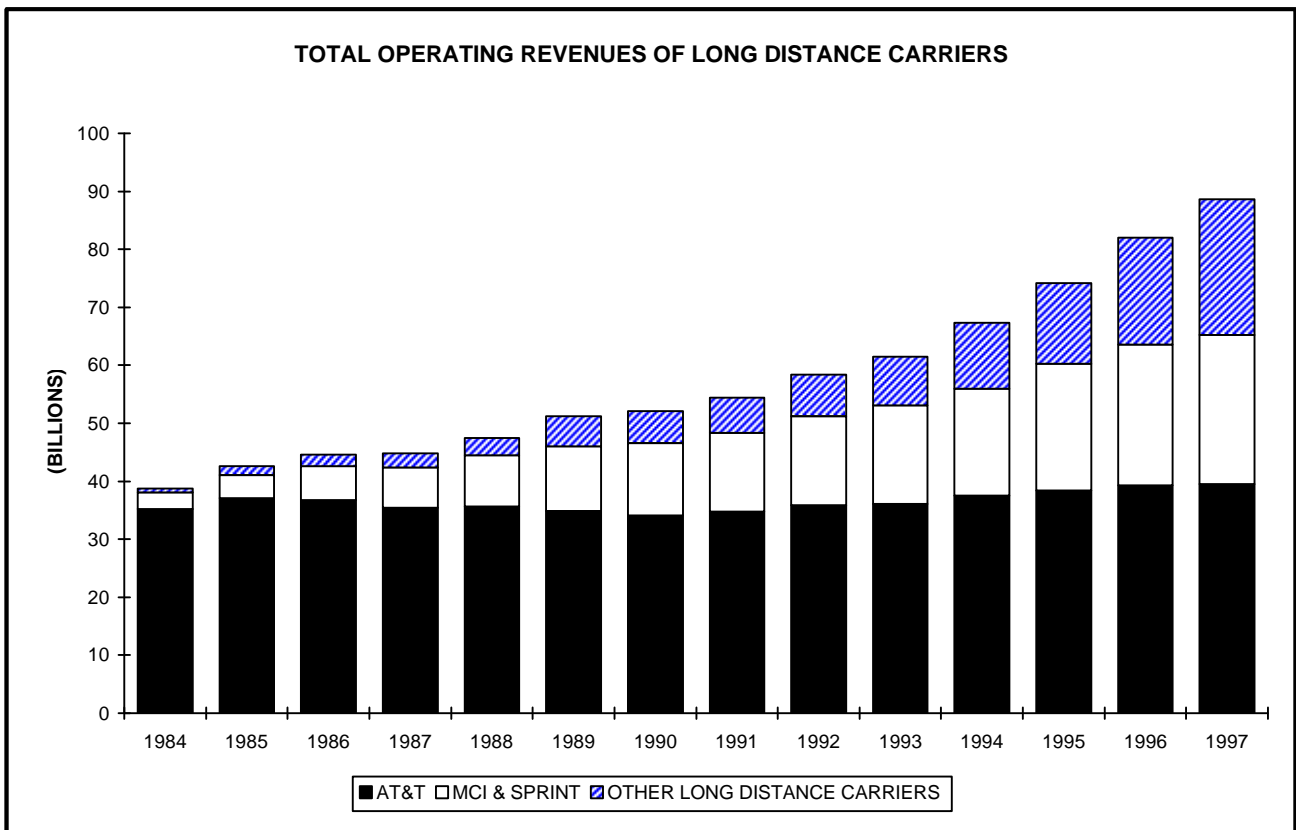
### Notes for Table 3.1 - Total Toll Service Revenues

- 1/ AT&T Communications, Inc. acquired Alascom, Inc. August 7, 1995 and began filing consolidated revenues in 1996.
- 2/ MCI Communications Corp. and Telecom\*USA merged in 1989 and began filing consolidated revenues in 1990.
- 3/ In July 1986, GTE Sprint and US Telecom merged into US Sprint. The information shown for GTE Sprint and US Telecom for 1986 is for January 1 - June 30. The information shown for Sprint Communications Corp. (then US Sprint) for 1986 is for July 1 - December 31. United Telecommunications, Inc., then majority owner of US Sprint, purchased the remaining interest from GTE in July 1992. Effective February 26, 1992, the company's name became Sprint Communications Co.
- 4/ Metromedia Communications Corp. and ITT Communications Services, Inc. merged during 1988, but reported 1989 revenue separately. LDDS Communications, Inc. and Advanced Telecommunications Corp. merged in 1992. In 1993, LDDS merged with Metromedia Communications Corp. and Comsystems Network Services. For 1993, only the revenues that were received after the merger are included in LDDS's revenues. Those revenues up to the merger are listed individually for 1993. LDDS and Wiltel merged January 5, 1995. In May 1995 LDDS changed its name to WorldCom, Inc. WorldCom acquired MFS Intelenet December 31, 1996.
- 5/ Excel Telecommunications, Inc. acquired Telco Holdings, Inc. in October 1997. Telco Holdings, Inc. and its affiliate Long Distance Wholesale Group filed a consolidated revenue statement for 1996. Excel Telecommunications, Inc., Telco Holdings, Inc., and Long Distance Wholesale Club each filed separate revenue statements for 1997.
- 6/ Allnet Communications Services and Lexitel merged at the end of 1985. In 1994, RCI Long Distance, Inc. changed its name to Frontier Communications International, Inc. Frontier Corporation, the parent company of Frontier Communications International, Inc., acquired ALC Communications, the parent company of Allnet, August 16, 1995. May 18, 1995, Frontier Corporation acquired WCT Communications, the parent company of West Coast Telecommunications, which is now known as Frontier Communications of the West, Inc. In addition, March 17, 1995, Frontier Corporation acquired American Sharecom, which is now Frontier Communications of the North Central Region.
- 7/ In September 1997 U.S. Long Distance, Inc. changed its name to USLD Communications, Inc. LCI International Telecom Corp. and USLD Communications, Inc. merged in December 1997, and filed separate revenue statements for 1997.
- 8/ Data for 1996 taken from the Annual Report to the Colorado Public Utilities Commission for telecommunications carriers regulated pursuant to §40-15-301 C.R.S.
- 9/ Cherry Communications, Inc. filed for bankruptcy protection in October 1997.
- 10/ MC Liquidating Corp. F/K/A Midcom Communications, Inc. filed for bankruptcy protection in November 1997.
- 11/ Telesphere Network, Inc. and National Telephone Services, Inc. merged during 1989. In 1991 Telesphere Network, Inc. went into bankruptcy.
- 12/ Estimated by FCC staff.

**TABLE 3.2 - REVENUES: MARKET SHARE BASED ON OPERATING REVENUES OF LONG DISTANCE CARRIERS ONLY**

YEAR	AT&T	MCI	SPRINT	WORLDCOM	ALL OTHER LONG DISTANCE CARRIERS	HERFINDAHL-HIRSCHMAN INDEX (HHI) *
1984	90.1 %	4.5 %	2.7 %		2.6 %	8,155
1985	86.3	5.5	2.6		5.6	7,479
1986	81.9	7.6	4.3		6.3	6,783
1987	78.6	8.8	5.8		6.8	6,298
1988	74.6	10.3	7.2		8.0	5,720
1989	67.5	12.1	8.4	0.2 %	11.8	4,778
1990	65.0	14.2	9.7	0.3	10.8	4,527
1991	63.2	15.2	9.9	0.5	11.3	4,321
1992	60.8	16.7	9.7	1.4	11.5	4,074
1993	58.1	17.8	10.0	1.9	12.3	3,795
1994	55.2	17.4	10.1	3.3	14.0	3,466
1995	51.8	19.7	9.8	4.9	13.8	3,197
1996	47.9	20.0	9.7	5.5	17.0	2,823
1997	44.5	19.4	9.7	6.7	19.8	2,508

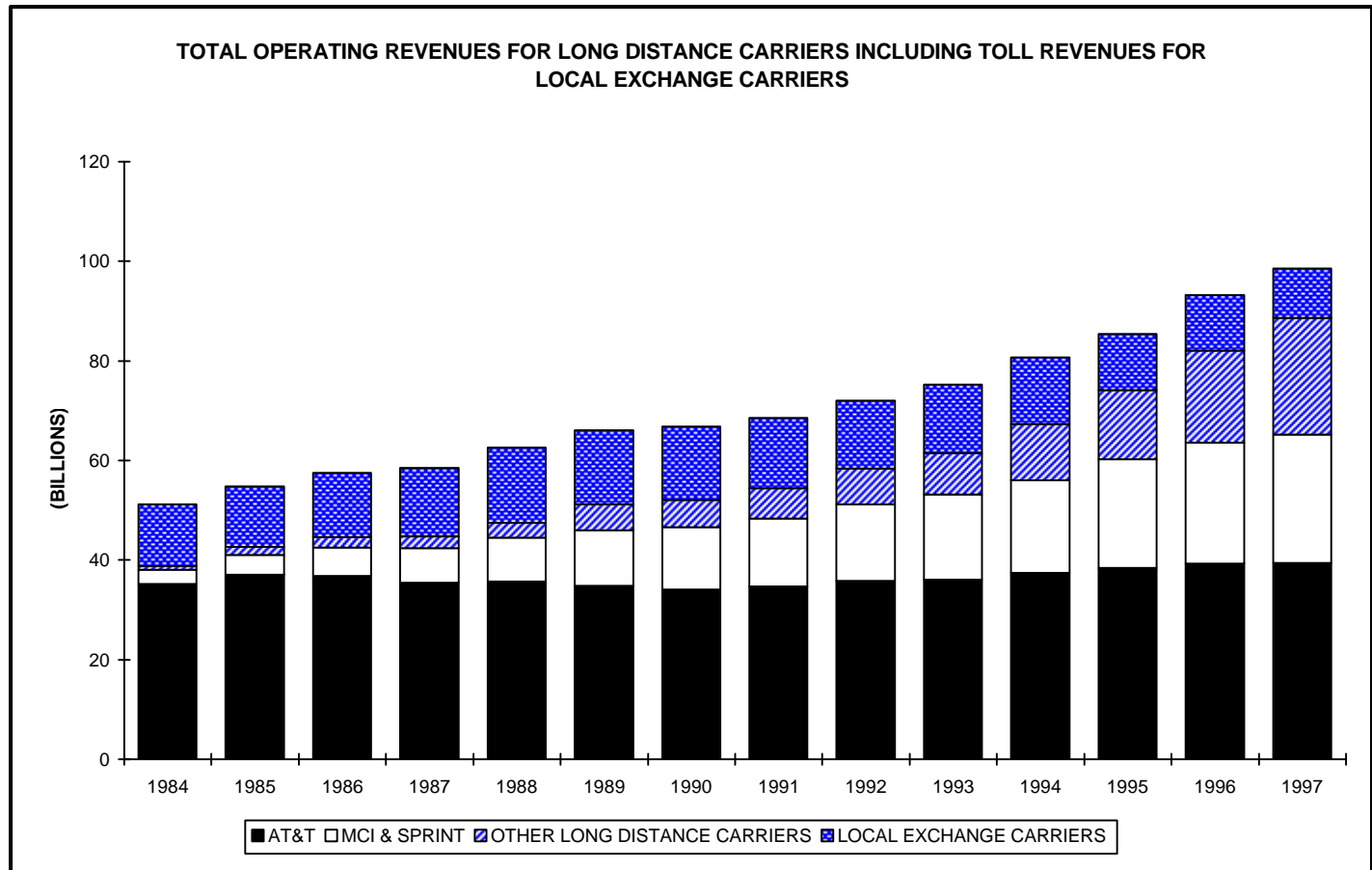
\* FCC estimate.



**TABLE 3.3 - REVENUES: MARKET SHARE BASED ON TOTAL OPERATING REVENUES OF LONG DISTANCE CARRIERS AND TOTAL TOLL REVENUES FOR LOCAL EXCHANGE CARRIERS**

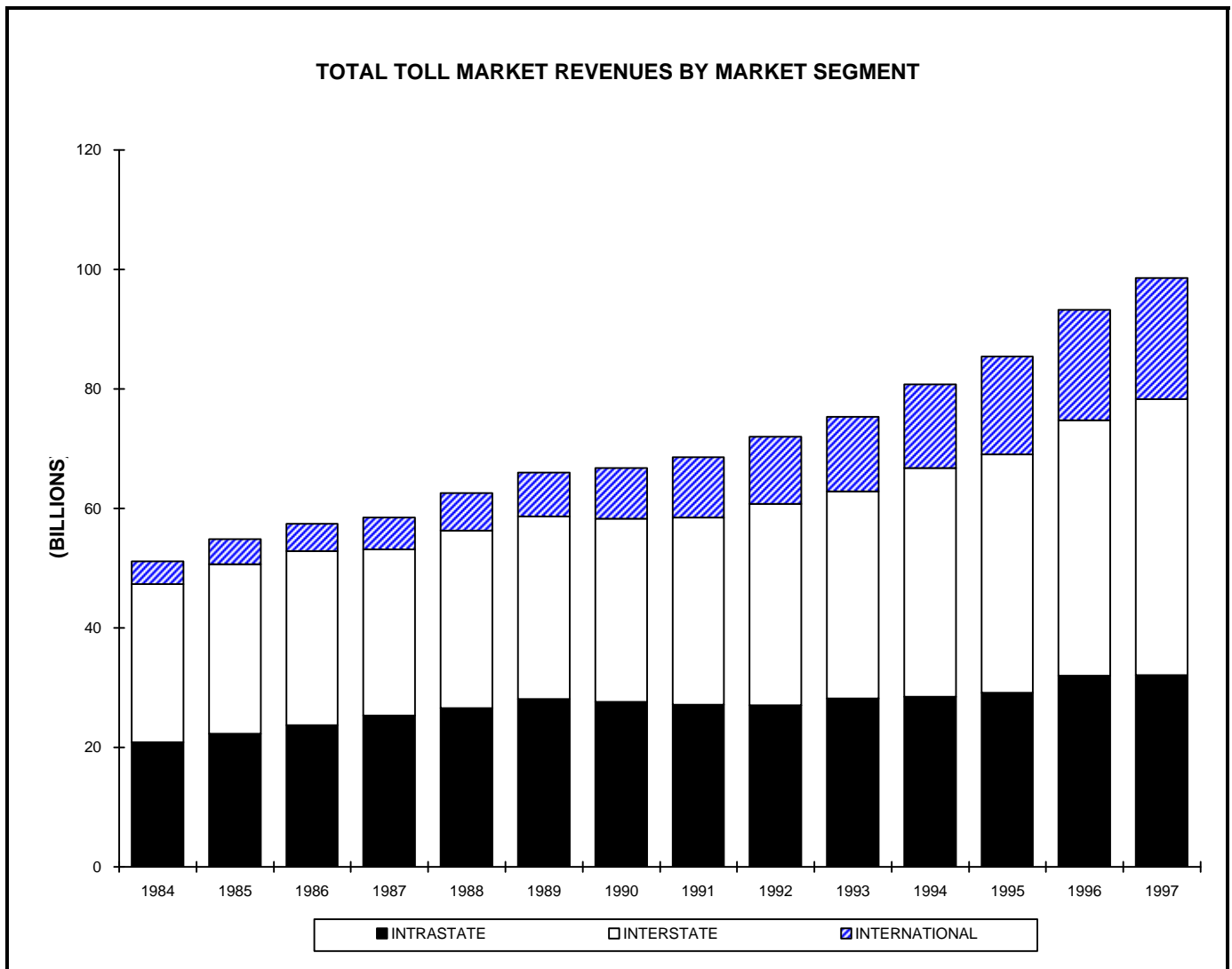
YEAR	AT&T	MCI	SPRINT	WORLDCOM	ALL OTHER LONG DISTANCE CARRIERS	BELL OPERATING COMPANIES	OTHER LOCAL TELEPHONE COMPANIES	HERFINDAHL-HIRSCHMAN INDEX (HHI) *
1984	68.3 %	3.4 %	2.1 %		2.0 %	17.7 %	6.6 %	4,734
1985	67.1	4.3	2.0		4.4	16.5	5.8	4,571
1986	63.5	5.9	3.3		4.9	16.7	5.7	4,129
1987	60.2	6.7	4.4		5.2	17.5	5.9	3,742
1988	56.6	7.8	5.4		6.1	17.0	7.1	3,344
1989	52.3	9.3	6.5	0.2 %	9.1	16.0	6.5	2,920
1990	50.7	11.1	7.5	0.2	8.4	15.8	6.2	2,801
1991	50.2	12.1	7.8	0.4	9.0	14.7	5.9	2,768
1992	49.3	13.5	7.9	1.1	9.3	13.5	5.4	2,715
1993	47.5	14.5	8.2	1.5	10.1	13.1	5.2	2,568
1994	46.0	14.5	8.4	2.8	11.7	11.8	4.8	2,440
1995	44.9	17.1	8.5	4.3	12.0	9.6	3.7	2,390
1996	42.1	17.6	8.5	4.8	15.0	8.5	3.5	2,197
1997	40.0	17.4	8.7	6.0	17.8	7.2	2.8	2,048

\* FCC estimate.



**TABLE 3.4 - THE TOLL MARKET**  
(DOLLAR AMOUNTS SHOWN IN MILLIONS)

	REVENUES			TOTAL TOLL REVENUES	AS PERCENTAGE OF TOTAL TOLL REVENUES		
	DOMESTIC				DOMESTIC		
	INTRASTATE	INTERSTATE	INTERNATIONAL		INTRASTATE	INTERSTATE	INTERNATIONAL
1984	\$20,872	\$26,490	\$3,794	\$51,156	40.8 %	51.8 %	7.4 %
1985	22,310	28,387	4,119	54,815	40.7	51.8	7.5
1986	23,734	29,123	4,611	57,468	41.3	50.7	8.0
1987	25,339	27,844	5,336	58,519	43.3	47.6	9.1
1988	26,542	29,724	6,334	62,600	42.4	47.5	10.1
1989	28,060	30,585	7,379	66,024	42.5	46.3	11.2
1990	27,652	30,676	8,464	66,792	41.4	45.9	12.7
1991	27,149	31,331	10,078	68,558	39.6	45.7	14.7
1992	27,066	33,719	11,199	71,983	37.6	46.8	15.6
1993	28,158	34,661	12,470	75,290	37.4	46.0	16.6
1994	28,496	38,262	13,968	80,726	35.3	47.4	17.3
1995	29,147	39,903	16,425	85,475	34.1	46.7	19.2
1996	31,995	42,771	18,515	93,281	34.3	45.9	19.8
1997	32,133	46,142	20,293	98,569	32.6	46.8	20.6



**TABLE 3.5 - QUARTERLY TOLL REVENUES REPORTED TO SHAREHOLDERS**  
(DOLLAR AMOUNTS SHOWN IN MILLIONS)

						MARKET SHARE					
	AT&T	MCIWORLD MCI	COM 1/ WORLD COM	SPRINT	OTHERS	TOTAL	AT&T	MCIWORLD MCI	COM 1/ WORLD COM	SPRINT	OTHERS
1Q84	\$8,684	\$475		\$302	\$63	\$9,524	91.2 %	5.0 %		3.2 %	0.7 %
2Q84	9,169	485		317	85	10,055	91.2	4.8		3.1	0.8
3Q84	9,097	478		307	114	9,995	91.0	4.8		3.1	1.1
4Q84	9,272	521		320	152	10,265	90.3	5.1		3.1	1.5
1Q85	9,369	571		320	283	10,543	88.9	5.4		3.0	2.7
2Q85	9,840	601		322	297	11,060	89.0	5.4		2.9	2.7
3Q85	9,742	649		335	312	11,038	88.3	5.9		3.0	2.8
4Q85	9,838	721		368	328	11,255	87.4	6.4		3.3	2.9
1Q86	9,865	819		395	383	11,462	86.1	7.1		3.4	3.3
2Q86	9,705	943		432	396	11,476	84.6	8.2		3.8	3.5
3Q86	9,642	910		552	410	11,514	83.7	7.9		4.8	3.6
4Q86	9,502	920		589	423	11,435	83.1	8.0		5.2	3.7
1Q87	9,085	1,005		615	452	11,156	81.4	9.0		5.5	4.0
2Q87	9,298	1,002		546	471	11,317	82.2	8.8		4.8	4.2
3Q87	9,474	1,044		685	492	11,694	81.0	8.9		5.9	4.2
4Q87	9,413	1,088		746	513	11,759	80.1	9.2		6.3	4.4
1Q88	9,229	1,212	\$9	760	538	11,748	78.6	10.3	0.1 %	6.5	4.6
2Q88	9,272	1,300	11	799	583	11,965	77.5	10.9	0.1	6.7	4.9
3Q88	9,378	1,437	14	916	631	12,377	75.8	11.6	0.1	7.4	5.1
4Q88	9,578	1,512	18	930	683	12,722	75.3	11.9	0.1	7.3	5.4
1Q89	9,326	1,625	21	984	951	12,906	72.3	12.6	0.2	7.6	7.4
2Q89	9,251	1,719	26	1,038	965	12,998	71.2	13.2	0.2	8.0	7.4
3Q89	9,175	1,792	31	1,111	978	13,087	70.1	13.7	0.2	8.5	7.5
4Q89	9,239	1,835	32	1,191	992	13,289	69.5	13.8	0.2	9.0	7.5
1Q90	9,511	2,001	34	1,215	1,007	13,768	69.1	14.5	0.2	8.8	7.3
2Q90	9,553	2,061	37	1,239	1,026	13,916	68.6	14.8	0.3	8.9	7.4
3Q90	9,626	2,197	43	1,279	1,046	14,191	67.8	15.5	0.3	9.0	7.4
4Q90	9,693	2,197	41	1,331	1,067	14,329	67.6	15.3	0.3	9.3	7.4
1Q91	9,594	2,283	134	1,339	1,086	14,436	66.5	15.8	0.9	9.3	7.5
2Q91	9,637	2,354	142	1,358	1,120	14,611	66.0	16.1	1.0	9.3	7.7
3Q91	9,820	2,412	164	1,348	1,155	14,900	65.9	16.2	1.1	9.0	7.8
4Q91	9,792	2,442	177	1,343	1,192	14,945	65.5	16.3	1.2	9.0	8.0
1Q92	9,873	2,513	184	1,357	1,287	15,214	64.9	16.5	1.2	8.9	8.5
2Q92	9,851	2,606	198	1,378	1,322	15,356	64.2	17.0	1.3	9.0	8.6
3Q92	10,132	2,682	206	1,432	1,359	15,811	64.1	17.0	1.3	9.1	8.6
4Q92	9,724	2,761	213	1,490	1,396	15,584	62.4	17.7	1.4	9.6	9.0
1Q93	9,967	2,810	219	1,491	1,430	15,917	62.6	17.7	1.4	9.4	9.0
2Q93	9,833	2,929	252	1,510	1,503	16,027	61.4	18.3	1.6	9.4	9.4
3Q93	10,142	3,054	282	1,541	1,580	16,599	61.1	18.4	1.7	9.3	9.5
4Q93	9,921	3,128	392	1,598	1,661	16,699	59.4	18.7	2.3	9.6	9.9
1Q94	10,224	3,221	524	1,660	1,934	17,563	58.2	18.3	3.0	9.5	11.0
2Q94	10,335	3,309	555	1,696	2,009	17,904	57.7	18.5	3.1	9.5	11.2
3Q94	10,378	3,407	569	1,740	2,087	18,181	57.1	18.7	3.1	9.6	11.5
4Q94	10,331	3,400	573	1,709	2,168	18,181	56.8	18.7	3.2	9.4	11.9
1Q95	10,736	3,561	839	1,753	2,320	19,208	55.9	18.5	4.4	9.1	12.1
2Q95	11,035	3,706	869	1,772	2,451	19,833	55.6	18.7	4.4	8.9	12.4
3Q95	11,330	3,862	908	1,827	2,590	20,517	55.2	18.8	4.4	8.9	12.6
4Q95	11,250	3,912	924	1,926	2,736	20,748	54.2	18.9	4.5	9.3	13.2

**TABLE 3.5 - QUARTERLY TOLL REVENUES REPORTED TO SHAREHOLDERS - (CONT'D)**  
**(DOLLAR AMOUNTS SHOWN IN MILLIONS)**

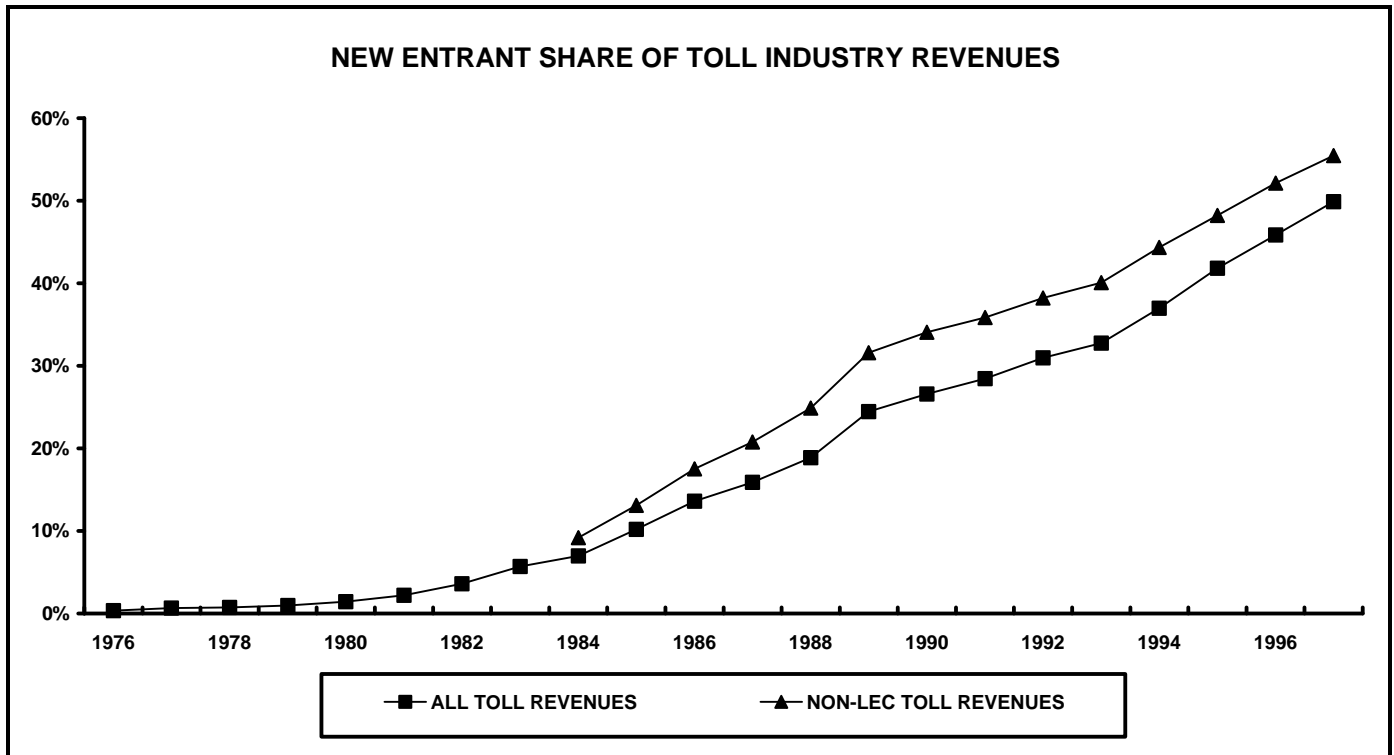
	AT&T	MCIWORLDCOM 1/ MCI WORLDCOM		SPRINT	OTHERS	TOTAL	MARKET SHARE				
		AT&T	MCI				WORLDCOM	SPRINT	OTHERS		
1Q96	\$11,313	\$4,050	\$1,006	\$2,002	\$3,245	\$21,616	52.3 %	18.7 %	4.7 %	9.3 %	15.0 %
2Q96	11,223	4,158	1,038	2,053	3,385	21,857	51.3	19.0	4.7	9.4	15.5
3Q96	11,552	4,274	1,111	2,084	3,532	22,552	51.2	19.0	4.9	9.2	15.7
4Q96	11,541	4,302	1,215	2,164	3,684	22,906	50.4	18.8	5.3	9.4	16.1
1Q97	11,509	4,384	1,305	2,172	4,066	23,436	49.1	18.7	5.6	9.3	17.4
2Q97	11,582	4,353	1,339	2,219	4,268	23,760	48.7	18.3	5.6	9.3	18.0
3Q97	11,695	4,343	1,416	2,252	4,479	24,185	48.4	18.0	5.9	9.3	18.5
4Q97	11,388	4,539	1,508	2,312	4,701	24,449	46.6	18.6	6.2	9.5	19.2
1Q98	11,264	4,838	1,658	2,368	5,393	25,521	44.1	19.0	6.5	9.3	21.1
2Q98	11,301	4,935	1,744	2,382	5,628	25,990	43.5	19.0	6.7	9.2	21.7
3Q98	11,382	6,427		2,458	5,873	26,140	43.5	24.6		9.4	22.5
4Q98	10,995	6,613		2,582	6,128	26,318	41.8	25.1		9.8	23.3

1/ WorldCom completed a merger with MCI 9/14/98. Beginning 3Q98 the revenues for the combined company, MCIWorldCom are reported in the MCI column. MCI and WorldCom Revenues for 1Q98 and 2Q98 and MCIWorldCom revenues for 3Q98 include local revenues, which were not separated from long distance revenues in reports to shareholders.

**TABLE 3.6 - TOLL REVENUES BY TYPE OF PROVIDER**  
(DOLLAR AMOUNTS SHOWN IN MILLIONS)

YEAR	TOTAL TOLL INDUSTRY REVENUE	TRADITIONAL TOLL CARRIER REVENUE 1/		NEW ENTRANTS TOLL REVENUE 2/	NEW ENTRANTS SHARE OF	
		AT&T AND ALASCOM TOLL REVENUE	LOCAL EXCHANGE CARRIERS TOLL REVENUE		NEW ENTRANTS SHARE OF TOTAL TOLL	SHARE OF NON-LEC TOLL
1976	\$19,867	\$19,800		\$67	0.3 %	
1977	22,575	22,429		146	0.6	
1978	26,079	25,891		188	0.7	
1979	29,551	29,262		289	1.0	
1980	33,335	32,855		480	1.4	
1981	39,180	38,309		871	2.2	
1982	43,919	42,332		1,587	3.6	
1983	46,970	44,298		2,672	5.7	
1984	51,156	35,190	\$12,401	3,565	7.0	9.2 %
1985	54,815	37,041	12,185	5,589	10.2	13.1
1986	57,468	36,782	12,873	7,813	13.6	17.5
1987	58,519	35,481	13,736	9,302	15.9	20.8
1988	62,600	35,679	15,113	11,807	18.9	24.9
1989	66,024	34,827	14,840	16,160	24.5	31.6
1990	66,792	34,139	14,690	17,748	26.6	34.1
1991	68,558	34,722	14,115	19,513	28.5	35.8
1992	71,983	35,828	13,615	22,297	31.0	38.2
1993	75,290	36,051	13,757	24,660	32.8	40.1
1994	80,726	37,495	13,375	29,856	37.0	44.3
1995	85,475	38,394	11,332	35,749	41.8	48.2
1996	93,281	39,264	11,248	42,769	45.8	52.1
1997	98,569	39,470	9,942	49,157	49.9	55.5

1/ Prior to 1984 AT&T and Alascom toll revenue includes local exchange carrier toll revenue, which was not reported separately to the FCC prior to  
2/ FCC staff estimates.





#### 4. RESIDENTIAL LONG DISTANCE MARKET SHARES

Bill Harvesting data collected by PNR and Associates, Inc. (PNR) provides information on market shares in the long distance residential market, as opposed to the overall market for toll service. The Bill Harvesting data also provide information on the market shares of long distance carriers by state.

PNR is an economic research and consulting firm located in Jenkinstown, Pennsylvania. PNR conducts nationwide surveys of residential telephone usage and household expenditures on telephone service. These surveys, in which households are asked to mail copies of their phone bills for one month to PNR, are called Bill Harvesting studies.<sup>10</sup>

PNR has donated databases containing information from their 1995, 1996, and 1997 Bill Harvesting studies to the Commission.<sup>11</sup> PNR has granted the Commission permission to use these databases for research purposes and to publish the results. Tables 4.1, 4.2, and 4.3, which are based on this information, present market shares for the residential long distance market based on lines, revenues and direct dial minutes. These tables include long distance market shares for AT&T, MCI, Sprint and other long distance carriers.<sup>12</sup>

Results of the Bill Harvesting surveys are interesting in several respects. For instance, AT&T's share of the residential long distance market is larger than its share of the total toll market. This result is consistent regardless of whether market shares are measured in lines, revenues or minutes. AT&T's share of the residential long distance market, by all three measures, dropped sharply from 1995 to 1997. As was the case in the overall toll market for long distance services, most of the growth occurred among smaller competitors. The Bill Harvesting data suggest that AT&T had 67% of presubscribed residential lines in 1997.

The Bill Harvesting data also indicate that competition is present in all parts of the country. Indeed, smaller competitors appear to be as successful in rural states as in more urban states. Although the Bill Harvesting surveys include several thousand households, sample sizes for individual states can be quite small and therefore subject to large margins of error. Thus, these small sample sizes may limit the usefulness of these data in analyzing differences among states and differences over time.

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<sup>10</sup>PNR and Associates, Inc. can be contacted by phone at (215) 886-9200, and by e-mail at info@pnr.com. Their address is 101 Greenwood Avenue, Suite 502, Jenkinstown, PA 19046.

<sup>11</sup>PNR first conducted a Bill Harvesting study in 1994 but the 1994 survey apparently is not fully comparable with later surveys. The 1995 survey is known as *Bill Harvesting II* and the 1996 survey, *Bill Harvesting III*. The expanded 1997 survey, which contains over twice as many observations, was conducted by both PNR and Associates, Inc. and by Market Facts, Inc. and is known as *TLC MarketShare Monitor*.

<sup>12</sup>Market share for WorldCom is not separated from other long distance carriers in the residential market share data since WorldCom has a small share of the end user residential market.

**TABLE 4.1 - MARKET SHARE OF RESIDENTIAL ACCESS LINES BY STATE**

STATE	1997					1996					1995				
	AT&T	MCI	SPRINT	OTHERS	SAMPLE SIZE	AT&T	MCI	SPRINT	OTHERS	SAMPLE SIZE	AT&T	MCI	SPRINT	OTHERS	SAMPLE SIZE
Alabama	73.8 %	8.2 %	1.9 %	16.1 %	286	69.5 %	14.7 %	2.1 %	13.7 %	95	73.6 %	12.0 %	3.2 %	11.2 %	125
Arizona	66.2	11.8	9.7	12.3	293	73.2	8.7	11.6	6.5	138	78.2	12.1	5.8	3.9	206
Arkansas	68.9	7.8	4.7	18.6	172	72.5	13.0	1.4	13.0	69	75.3	12.3	4.9	7.4	81
California	66.5	15.5	7.0	11.0	1,888	75.6	12.8	6.3	5.3	742	75.9	15.3	4.8	4.0	793
Colorado	64.5	16.0	3.9	15.6	256	72.6	11.9	9.6	5.9	135	62.3	19.4	6.9	11.4	175
Connecticut	42.4	9.7	3.0	44.9	216	44.6	9.2	6.2	40.0	65	83.1	8.4	2.4	6.0	83
Delaware	65.6	13.1	8.2	13.1	61	64.7	23.5	11.8	0.0	17	87.5	8.3	0.0	4.2	24
Dist. of Columbia	52.0	18.0	8.0	22.0	25	69.2	15.4	0.0	15.4	13	90.9	9.1	0.0	0.0	11
Florida	69.3	10.0	8.4	12.2	1,115	71.4	10.2	6.4	12.0	451	75.6	12.5	4.3	7.6	536
Georgia	72.3	9.2	5.5	12.9	417	79.5	8.9	4.1	7.5	146	73.3	16.8	3.8	6.1	131
Idaho	61.9	8.3	8.3	21.4	84	72.5	10.0	7.5	10.0	40	78.7	14.8	3.3	3.3	61
Illinois	69.7	12.1	4.7	13.5	774	73.8	15.2	3.8	7.2	290	77.4	13.1	3.3	6.1	359
Indiana	66.8	10.3	3.1	19.8	382	77.0	12.1	3.0	7.9	165	75.3	10.5	4.7	9.5	190
Iowa	57.5	18.8	5.1	18.6	226	72.8	13.2	1.8	12.3	114	78.7	11.6	4.9	4.9	164
Kansas	64.7	10.2	8.6	16.6	187	60.7	14.8	8.2	16.4	61	72.1	13.5	3.6	10.8	111
Kentucky	71.1	8.0	6.2	14.7	268	71.6	14.7	2.0	11.8	102	74.7	11.6	2.1	11.6	146
Louisiana	66.8	10.2	4.9	18.1	274	70.5	12.5	4.5	12.5	88	70.0	18.5	4.6	6.9	130
Maine	72.5	11.9	3.1	12.5	80	81.5	18.5	0.0	0.0	27	74.6	14.3	1.6	9.5	63
Maryland	60.3	19.2	4.4	16.0	377	59.8	23.6	3.9	12.6	127	71.2	17.8	3.1	8.0	163
Massachusetts	76.3	10.9	3.7	9.1	340	74.6	9.8	4.1	11.5	122	82.8	8.9	2.2	6.1	180
Michigan	61.9	16.1	6.0	16.0	576	59.7	18.1	5.0	17.2	221	73.0	12.8	2.8	11.4	359
Minnesota	66.4	19.5	3.6	10.6	405	64.7	17.3	4.0	13.9	173	70.4	15.6	3.2	10.8	250
Mississippi	71.1	8.9	5.4	14.6	140	76.6	4.3	8.5	10.6	47	80.3	13.1	3.3	3.3	61
Missouri	66.7	13.0	6.0	14.3	300	59.1	17.4	3.8	19.7	132	73.8	11.6	6.7	7.9	164
Montana	66.9	14.9	1.4	16.9	74	67.7	16.1	0.0	16.1	31	80.8	11.5	1.9	5.8	52
Nebraska	67.1	14.7	4.2	14.0	143	71.2	17.3	1.9	9.6	52	73.6	13.9	1.4	11.1	72
Nevada	64.2	6.4	14.7	14.7	109	66.0	16.0	16.0	2.0	50	67.5	15.0	10.0	7.5	40
New Hampshire	76.5	9.1	3.8	10.6	66	77.5	10.0	10.0	2.5	40	80.5	7.3	7.3	4.9	41
New Jersey	74.9	11.3	4.5	9.3	462	77.5	11.9	5.6	5.0	160	84.2	10.4	1.0	4.5	202
New Mexico	61.8	13.7	6.9	17.6	102	64.9	10.5	7.0	17.5	57	78.7	11.5	4.9	4.9	61
New York	71.7	11.9	5.1	11.3	1,079	69.4	15.4	3.7	11.5	461	78.3	11.9	4.1	5.7	663
North Carolina	69.8	4.7	9.5	16.0	425	63.6	14.9	6.7	14.9	195	78.3	11.1	4.4	6.2	226
North Dakota	46.4	26.8	3.6	23.2	56	50.0	18.8	6.3	25.0	16	69.2	7.7	5.1	17.9	39
Ohio	66.0	12.2	6.3	15.5	717	68.3	14.4	4.8	12.5	271	71.5	10.9	5.2	12.4	386
Oklahoma	68.4	9.3	3.0	19.3	236	64.1	12.5	4.7	18.8	64	75.8	12.5	3.3	8.3	120
Oregon	72.5	6.1	4.9	16.4	244	64.1	11.7	6.8	17.5	103	79.6	7.3	4.4	8.8	137
Pennsylvania	65.6	14.2	4.6	15.6	873	66.2	18.0	1.6	14.1	305	70.5	12.4	4.1	13.1	590
Rhode Island	80.5	9.8	0.0	9.8	41	74.1	11.1	3.7	11.1	27	95.7	4.3	0.0	0.0	23
South Carolina	67.7	9.4	4.2	18.8	240	70.4	7.0	5.6	16.9	71	76.9	8.3	2.8	12.0	108
South Dakota	66.7	4.4	1.8	27.2	57	73.9	13.0	0.0	13.0	23	61.7	25.5	2.1	10.6	47
Tennessee	71.5	10.5	7.3	10.8	324	71.5	9.3	4.0	15.2	151	77.0	9.1	3.9	10.0	230
Texas	63.4	13.6	6.1	16.9	1,072	71.4	14.3	4.0	10.2	420	66.2	15.6	5.4	12.8	461
Utah	52.3	15.7	9.9	22.1	86	59.6	14.0	14.0	12.3	57	68.2	10.6	10.6	10.6	85
Vermont	68.2	16.7	9.1	6.1	33	94.1	0.0	5.9	0.0	17	64.7	17.6	11.8	5.9	17
Virginia	64.8	17.1	6.9	11.3	444	66.9	18.9	4.0	10.3	175	76.5	12.4	5.3	5.8	226
Washington	66.8	11.1	5.8	16.3	361	67.3	10.1	6.9	15.7	159	65.9	15.3	7.6	11.2	170
West Virginia	64.5	11.0	3.5	20.9	172	74.4	18.6	0.0	7.0	43	69.6	17.7	1.3	11.4	79
Wisconsin	70.1	14.7	3.5	11.7	536	67.9	13.9	4.2	13.9	165	75.5	14.9	2.5	7.1	322
Wyoming	75.0	12.5	2.1	10.4	48	80.0	6.7	0.0	13.3	15	94.1	0.0	0.0	5.9	17
<b>Total</b>	<b>67.2</b>	<b>12.6</b>	<b>5.7</b>	<b>14.5</b>	<b>17,140</b>	<b>69.9</b>	<b>13.7</b>	<b>5.0</b>	<b>11.4</b>	<b>6,708</b>	<b>74.6</b>	<b>13.0</b>	<b>4.2</b>	<b>8.3</b>	<b>8,980</b>

Source: PNR and Associates Inc., Bill Harvesting II and III and PNR and Associates Inc. and Market Facts Inc., TLC MarketShare Monitor.

**TABLE 4.2 - MARKET SHARE OF RESIDENTIAL TOLL REVENUE BY STATE**

STATE	1997					1996					1995				
	AT&T	MCI	SPRINT	OTHERS	SAMPLE SIZE	AT&T	MCI	SPRINT	OTHERS	SAMPL E SIZE	AT&T	MCI	SPRINT	OTHERS	SAMPLE SIZE
Alabama	71.2 %	10.9 %	2.2 %	15.7 %	331	60.5 %	17.4 %	5.2 %	16.9 %	99	59.9 %	19.4 %	4.2 %	16.5 %	121
Arizona	55.6	15.9	13.6	15.0	346	56.9	10.4	19.6	13.2	107	74.8	14.1	3.9	7.1	192
Arkansas	62.6	9.7	3.7	24.1	205	70.5	12.3	2.6	14.6	76	65.9	11.5	4.7	17.9	73
California	58.7	17.3	7.2	16.8	2,125	68.4	15.3	7.1	9.2	752	70.4	16.2	6.9	6.5	741
Colorado	63.7	16.3	2.3	17.7	294	65.5	13.2	5.9	15.5	115	61.5	17.5	6.5	14.4	154
Connecticut	45.3	17.8	5.7	31.2	241	39.0	28.7	6.0	26.3	63	71.2	18.6	1.3	9.0	87
Delaware	66.5	11.1	10.5	12.0	72	55.9	19.5	10.7	13.9	18	79.4	10.9	0.0	9.7	23
Dist. of Columbia	46.2	27.3	6.4	20.1	29	74.6	20.5	1.8	3.1	15	83.6	9.0	0.0	7.4	11
Florida	67.5	12.9	5.2	14.4	1,251	65.0	12.7	9.2	13.0	438	67.6	12.7	8.8	10.9	503
Georgia	60.8	12.3	6.5	20.5	471	75.7	9.7	3.2	11.4	169	73.6	11.7	6.5	8.2	127
Idaho	64.8	6.8	5.6	22.9	102	75.3	8.3	5.5	11.0	31	71.2	16.5	4.1	8.2	60
Illinois	61.2	15.5	5.2	18.0	892	63.5	14.4	11.5	10.6	289	69.0	19.7	2.6	8.7	342
Indiana	62.7	13.1	6.2	18.0	446	64.0	15.4	4.9	15.7	161	73.0	11.2	4.3	11.5	183
Iowa	53.3	21.3	3.3	22.0	256	65.1	11.7	2.5	20.8	104	70.6	12.6	10.0	6.7	146
Kansas	57.7	9.8	9.6	22.9	222	48.1	17.2	11.4	23.4	73	73.4	11.6	4.2	10.9	108
Kentucky	65.5	10.0	5.8	18.7	333	66.9	18.6	1.6	12.9	109	68.6	16.4	1.1	14.0	143
Louisiana	55.8	15.3	5.7	23.3	340	72.4	8.3	2.9	16.4	106	62.5	12.6	5.4	19.5	128
Maine	64.5	8.5	4.5	22.6	97	55.6	18.5	0.0	25.9	25	63.1	17.3	0.3	19.4	58
Maryland	54.7	22.1	4.8	18.4	436	52.0	26.6	8.0	13.3	135	73.8	13.2	5.5	7.5	154
Massachusetts	73.4	12.4	3.6	10.6	378	75.4	10.6	1.6	12.4	117	75.6	10.6	5.4	8.4	169
Michigan	52.1	18.9	7.8	21.2	684	57.0	20.7	3.5	18.9	217	63.3	16.2	5.0	15.5	341
Minnesota	60.2	22.0	5.2	12.6	450	51.9	27.6	6.7	13.9	138	60.2	22.5	4.0	13.3	230
Mississippi	61.8	12.5	1.9	23.8	167	62.4	8.9	2.9	25.9	49	89.7	6.0	0.9	3.3	60
Missouri	58.3	15.7	7.2	18.8	368	55.3	19.9	4.0	20.8	135	68.0	14.2	3.3	14.6	151
Montana	59.1	14.1	1.7	25.1	89	62.4	16.1	0.0	21.5	25	78.0	18.7	1.7	1.6	50
Nebraska	57.1	25.5	6.8	10.5	166	63.5	20.2	1.6	14.7	46	60.4	17.5	4.3	17.8	69
Nevada	65.6	4.0	14.7	15.7	121	57.8	17.4	18.6	6.2	47	67.9	11.7	6.4	14.0	33
New Hampshire	80.2	8.9	1.4	9.6	79	67.5	10.0	15.5	7.0	39	68.1	16.3	5.4	10.2	40
New Jersey	66.2	14.5	5.0	14.3	514	71.7	14.2	5.1	9.0	166	77.6	15.1	1.4	5.9	195
New Mexico	55.6	17.5	5.7	21.2	119	61.2	8.9	7.8	22.1	48	71.4	7.3	9.0	12.3	56
New York	66.6	15.8	3.3	14.3	1,267	63.8	18.8	7.4	10.0	449	71.1	15.0	5.6	8.2	603
North Carolina	65.0	7.7	9.6	17.6	504	60.6	16.2	7.2	16.1	189	78.4	9.4	6.0	6.1	216
North Dakota	52.4	19.0	9.5	19.1	65	36.7	24.4	7.5	31.4	13	68.7	5.0	5.5	20.8	34
Ohio	61.5	14.9	6.0	17.6	858	66.1	15.5	4.3	14.1	275	69.1	10.8	5.3	14.8	358
Oklahoma	67.6	9.4	4.0	19.0	274	58.4	16.6	8.2	16.8	77	65.6	23.5	3.5	7.4	109
Oregon	58.0	7.7	5.0	29.3	299	66.0	15.4	3.2	15.5	105	69.8	7.8	6.0	16.4	132
Pennsylvania	59.5	15.2	4.6	20.7	1,054	62.0	19.1	2.3	16.6	322	62.4	14.8	4.2	18.5	574
Rhode Island	79.1	10.7	0.7	9.5	50	68.6	21.0	2.9	7.5	26	89.6	8.1	0.0	2.2	23
South Carolina	58.7	9.9	4.7	26.8	262	52.9	22.3	9.7	15.1	76	72.2	7.7	10.3	9.8	108
South Dakota	57.5	2.6	5.6	34.4	66	70.2	19.2	0.0	10.6	22	56.8	25.1	3.5	14.5	45
Tennessee	63.8	14.1	4.9	17.3	381	67.3	16.4	4.3	12.0	171	71.1	12.0	6.4	10.5	219
Texas	56.2	17.8	5.4	20.6	1,272	58.2	17.5	8.8	15.5	471	58.2	20.6	6.7	14.4	418
Utah	51.7	13.1	9.6	25.6	104	65.7	9.3	12.6	12.4	39	76.9	10.2	10.5	2.3	73
Vermont	58.3	34.9	1.9	4.9	38	89.6	0.0	10.4	0.0	14	58.1	13.1	0.5	28.3	15
Virginia	55.7	23.3	6.1	14.9	510	65.5	18.5	3.7	12.3	177	69.4	13.2	9.1	8.3	211
Washington	64.7	11.7	5.4	18.2	435	57.4	8.5	11.1	23.0	156	59.7	13.2	11.8	15.2	153
West Virginia	56.9	17.7	3.3	22.1	204	74.4	7.3	0.8	17.5	40	67.4	15.1	0.5	17.1	74
Wisconsin	62.8	17.4	3.1	16.7	610	64.3	17.1	3.4	15.2	157	68.3	15.4	4.0	12.3	321
Wyoming	77.2	10.3	1.2	11.3	53	88.8	4.3	0.0	6.8	10	78.2	2.8	17.1	1.9	16
<b>Total</b>	<b>60.9</b>	<b>15.4</b>	<b>5.6</b>	<b>18.1</b>	<b>19,930</b>	<b>63.3</b>	<b>16.0</b>	<b>6.6</b>	<b>14.1</b>	<b>6,701</b>	<b>68.5</b>	<b>14.6</b>	<b>5.6</b>	<b>11.3</b>	<b>8,450</b>

Source: PNR and Associates Inc., Bill Harvesting II and III and PNR and Associates Inc. and Market Facts Inc., TLC MarketShare Monitor. Taxes are not included in residential toll revenue.

**TABLE 4.3 - MARKET SHARE OF RESIDENTIAL DIRECT DIAL  
TOLL MINUTES BY STATE**

STATE	1997					1996					1995				
	AT&T	MCI	SPRINT	OTHERS	MINUTES*	AT&T	MCI	SPRINT	OTHERS	MINUTES*	AT&T	MCI	SPRINT	OTHERS	MINUTES*
Alabama	73.2 %	8.2 %	1.8 %	16.8 %	39,443	58.5 %	12.4 %	6.4 %	22.7 %	11,787	67.3 %	16.0 %	5.7 %	11.0 %	16,385
Arizona	58.1	11.4	16.2	14.3	43,786	49.5	14.5	17.5	18.5	14,300	76.2	13.9	3.0	6.9	26,871
Arkansas	70.3	6.9	3.1	19.7	24,759	58.8	22.8	4.8	13.7	5,802	52.9	20.9	4.6	21.6	6,936
California	59.3	17.1	7.1	16.4	328,378	68.3	15.4	7.5	8.9	104,144	70.9	17.3	7.6	4.1	96,752
Colorado	61.5	18.5	3.5	16.4	36,811	58.4	16.5	6.3	18.8	14,565	59.6	21.4	4.3	14.7	20,972
Connecticut	46.9	14.3	6.6	32.2	32,204	35.8	37.8	5.4	20.9	8,674	76.0	15.0	1.3	7.7	11,673
Delaware	64.4	14.1	9.6	11.9	8,229	45.0	11.9	16.1	27.1	1,544	77.3	11.4	0.0	11.3	2,387
Dist. of Columb	38.4	38.0	9.3	14.3	4,035	61.0	32.8	0.0	6.2	3,690	75.6	14.5	0.0	10.0	1,334
Florida	69.0	10.8	6.7	13.5	187,628	61.1	14.1	9.8	15.0	61,047	71.6	13.4	6.9	8.1	72,362
Georgia	61.5	12.0	7.3	19.1	65,843	69.1	15.7	3.9	11.3	23,987	72.4	13.3	7.0	7.3	19,640
Idaho	61.3	8.7	4.9	25.1	10,120	73.3	7.4	4.7	14.6	3,591	69.4	18.4	6.0	6.3	5,638
Illinois	63.4	15.7	4.7	16.2	125,319	61.3	17.3	10.0	11.4	38,738	70.4	22.3	2.1	5.3	45,772
Indiana	66.3	11.1	4.7	17.9	56,457	68.1	9.7	6.8	15.3	18,238	76.0	10.2	2.6	11.1	19,449
Iowa	54.4	23.3	3.6	18.8	34,479	61.8	14.2	1.7	22.3	13,762	67.1	15.5	11.3	6.2	23,683
Kansas	58.4	8.2	11.6	21.7	23,412	46.4	17.2	12.9	23.5	10,014	71.2	11.8	4.2	12.8	12,259
Kentucky	68.1	11.0	4.7	16.2	33,209	71.4	11.8	0.7	16.1	12,504	71.1	17.1	1.6	10.2	12,544
Louisiana	56.5	13.9	7.2	22.3	37,346	70.2	7.7	2.9	19.2	9,366	63.9	21.0	10.9	4.2	15,285
Maine	66.6	8.6	5.1	19.7	10,802	40.9	11.8	0.0	47.3	2,037	56.7	18.6	0.0	24.7	4,986
Maryland	55.6	18.7	5.1	20.6	64,160	49.6	25.9	7.1	17.3	16,987	68.7	16.4	4.1	10.9	19,365
Massachusetts	70.9	12.7	4.9	11.4	40,035	67.0	11.5	3.3	18.2	10,437	74.8	9.8	5.2	10.2	21,182
Michigan	55.7	18.6	7.1	18.5	87,551	56.4	22.7	3.2	17.7	26,766	62.4	15.8	4.8	17.0	38,142
Minnesota	61.5	21.2	4.5	12.8	61,230	48.7	27.0	8.6	15.6	17,077	56.4	26.2	4.9	12.6	21,698
Mississippi	63.9	12.2	3.2	20.7	15,893	57.7	7.1	5.3	30.0	5,276	92.5	5.4	0.2	1.9	6,860
Missouri	59.8	16.0	6.4	17.8	46,470	51.6	13.7	1.3	33.4	16,546	74.9	14.7	5.3	5.1	16,175
Montana	56.0	14.8	2.0	27.2	11,115	63.8	9.4	0.0	26.8	4,125	63.2	30.8	0.0	6.0	6,185
Nebraska	56.1	19.1	12.1	12.6	20,733	60.0	24.9	3.3	11.9	5,094	61.8	13.4	6.8	18.0	6,534
Nevada	62.7	3.8	15.0	18.5	17,011	61.3	13.0	23.4	2.3	6,279	65.8	12.0	8.4	13.8	5,605
New Hampshire	77.6	9.0	2.1	11.4	9,505	64.0	9.5	14.9	11.6	4,919	76.4	5.2	8.1	10.2	4,870
New Jersey	67.9	12.8	5.5	13.8	78,978	76.1	10.2	4.5	9.2	23,931	79.6	13.3	3.0	4.1	26,503
New Mexico	50.4	18.5	8.9	22.2	14,798	58.8	9.3	13.0	18.9	6,425	74.0	8.0	7.2	10.8	9,266
New York	64.4	18.5	4.1	13.0	162,745	64.6	18.0	6.9	10.4	54,840	68.2	18.3	6.7	6.8	76,245
North Carolina	65.8	5.3	12.3	16.7	69,927	58.1	15.2	9.0	17.7	24,741	76.9	10.0	7.6	5.5	31,630
North Dakota	45.9	20.9	6.8	26.4	8,402	35.8	23.0	0.0	41.2	1,550	67.2	6.3	1.6	24.9	4,837
Ohio	61.4	14.4	6.7	17.4	98,565	63.2	16.4	5.7	14.7	31,973	71.8	9.7	4.0	14.5	40,054
Oklahoma	65.7	9.9	2.8	21.7	34,317	38.9	17.0	17.1	27.1	5,272	66.4	22.3	3.4	7.9	12,569
Oregon	63.0	7.2	4.2	25.5	32,673	62.0	16.8	4.9	16.3	11,164	68.0	9.2	6.9	15.8	14,035
Pennsylvania	59.8	16.6	5.9	17.8	117,069	56.8	20.2	2.4	20.6	34,951	60.6	16.4	5.3	17.7	58,224
Rhode Island	81.3	8.2	0.0	10.5	5,623	61.9	22.1	3.8	12.3	2,783	88.3	9.8	0.0	1.9	2,447
South Carolina	59.1	8.4	5.5	27.0	36,609	59.0	14.9	13.4	12.7	9,329	74.4	12.4	7.2	6.0	14,387
South Dakota	58.4	1.7	0.3	39.5	8,025	72.8	17.1	0.0	10.1	1,976	54.6	32.2	2.8	10.4	7,173
Tennessee	65.9	10.5	6.9	16.7	48,659	64.7	16.3	5.2	13.9	24,508	75.2	11.6	4.4	8.9	24,362
Texas	55.7	16.8	5.9	21.5	163,883	58.3	15.2	9.9	16.6	59,461	57.8	23.9	7.3	11.1	58,182
Utah	45.5	14.6	13.8	26.0	11,041	41.6	18.1	14.5	25.8	3,923	68.9	18.1	9.6	3.3	7,160
Vermont	74.2	9.7	11.2	4.8	4,867	80.2	0.0	19.8	0.0	1,190	34.6	39.9	0.6	24.9	2,677
Virginia	57.8	23.8	6.5	12.0	77,465	64.0	20.2	4.8	11.0	24,394	67.1	15.7	11.6	5.7	30,744
Washington	63.1	11.3	7.0	18.6	48,929	58.3	10.4	6.7	24.6	17,264	56.6	15.9	13.0	14.5	15,038
West Virginia	63.8	11.9	1.4	23.0	22,992	65.4	9.7	2.0	23.0	3,896	78.3	13.3	0.0	8.4	6,186
Wisconsin	63.7	17.9	3.6	14.8	66,962	55.2	22.7	4.1	18.0	20,015	70.7	17.1	2.7	9.5	28,385
Wyoming	73.7	12.2	1.1	12.9	8,017	80.9	7.3	0.0	11.7	939	65.1	0.0	31.5	3.4	1,588
<b>Total</b>	<b>61.7</b>	<b>14.8</b>	<b>6.2</b>	<b>17.3</b>	<b>2,596,506</b>	<b>61.3</b>	<b>16.4</b>	<b>7.0</b>	<b>15.4</b>	<b>835,817</b>	<b>68.6</b>	<b>16.2</b>	<b>5.8</b>	<b>9.4</b>	<b>1,033,236</b>

\* Total minutes of direct dial toll calling for households in the Bill Harvesting study.

Source: PNR and Associates Inc., Bill Harvesting II and III and PNR and Associates Inc. and Market Facts Inc., TLC MarketShare Monitor.

## 5. THE INTERNATIONAL LONG DISTANCE TELEPHONE MARKET

Prior to 1985, AT&T was the monopoly provider of international long distance telephone service for U.S. customers. Since 1985 new firms have entered the international long distance business, reducing AT&T's share of this market.

Table 5.1 summarizes the portion of international toll revenues directly attributable to international telephone service.<sup>13</sup> The information in this table is from reports to the FCC by international long distance carriers and does not include international revenues generated from sources such as telegraph, telex, and private line services. In this respect the figures reported in Table 5.1 are different from those shown in Table 3.4.

In 1997 AT&T's international telephone revenues were two and one-half times their 1985 values. International telephone market revenues for the entire industry have grown even faster during this time. In 1997 industry revenues were over \$19 billion, over five times 1985 industry revenues. Consequently, AT&T's formerly monopolized share of the market has fallen to 44%. At the same time MCI has amassed a 22% share of this market followed by Sprint with 8%. More recently WorldCom, who had no international revenues in 1985, has increased its share of the international long distance market to over 4%.

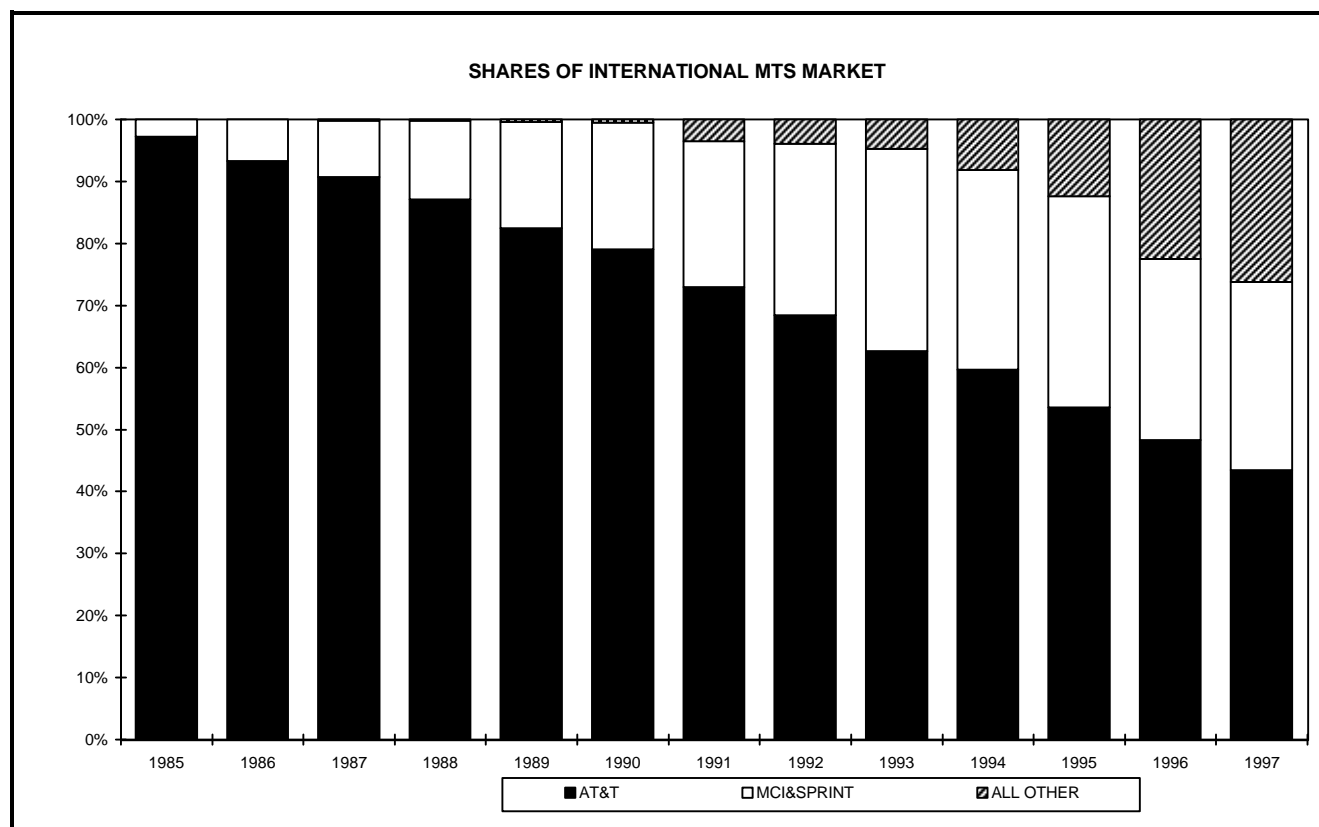
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<sup>13</sup>The international telephone service revenue figures shown in Table 5.1, which become available for each year in the second half of the following year, are taken from Table 2 in the *Trends in the International Telecommunications Industry* report published by the FCC.

**TABLE 5.1 - INTERNATIONAL TELEPHONE SERVICE**

	REVENUES FOR FACILITIES-BASED AND RESALE SERVICE 1/ (DOLLARS AMOUNTS SHOWN IN MILLIONS)					MARKET SHARES					
	AT&T 2/	MCI 3/	SPRINT 3/	WORLD COM 4/	OTHER 4/	TOTAL	AT&T	MCI	SPRINT	WORLD COM	OTHER
1984	\$3,197					\$3,197	100.0 %				
1985	3,392	\$78	\$18			3,487	97.3	2.2 %	0.5 %		
1986	3,738	197	70			4,004	93.3	4.9	1.7		
1987	4,307	305	127		\$10	4,750	90.7	6.4	2.7		0.2 %
1988	5,050	517	219		13	5,800	87.1	8.9	3.8		
1989	5,693	795	387		26	6,901	82.5	11.5	5.6		0.4
1990	6,361	1,175	464		43	8,042	79.1	14.6	5.8		0.5
1991	6,962	1,552	692		\$5 325	9,536	73.0	16.3	7.3	0.1 %	3.4
1992	7,314	2,113	849		40 374	10,690	68.4	19.8	7.9	0.4	3.5
1993	7,482	2,814	1,076		100 472	11,944	62.6	23.6	9.0	0.8	4.0
1994	7,984	3,008	1,285		338 759	13,375	59.7	22.5	9.6	1.9	6.3
1995	8,425	4,019	1,357		479 1,465	15,745	53.5	25.5	8.6	3.0	9.3
1996	8,559	3,592	1,581		775 3,209	17,715	48.3	20.3	8.9	4.4	18.1
1997	8,394	4,282	1,573		801 4,258	19,309	43.5	22.2	8.1	4.1	22.1

- 1/ International message telephone service of the domestic United States for the year ending December 31. Company specific revenue information
- 2/ AT&T 1984-1990 data are from 43.61 international traffic reports, minus revenue for Alaska, Hawaii, and Puerto Rico, plus revenue for Canada and Mexico were taken from Appendices B & C of Trends in the International Telecommunications Industry.
- 3/ MCI and Sprint 1985-1990 data are from 43.61 international traffic reports, less data for Alaska. MCI and Sprint were not required to report. For these years, non-AT&T traffic estimated in Appendices B & C of Trends in the International Telecommunications Industry have been applied to Sprint based on reported international revenues.
- 4/ Data for 1984-1990 exclude international calls placed from or to Alaska, Hawaii, and Puerto Rico. Data for 1984 do not include about \$5 million of American Telephone and Telegraph Company.

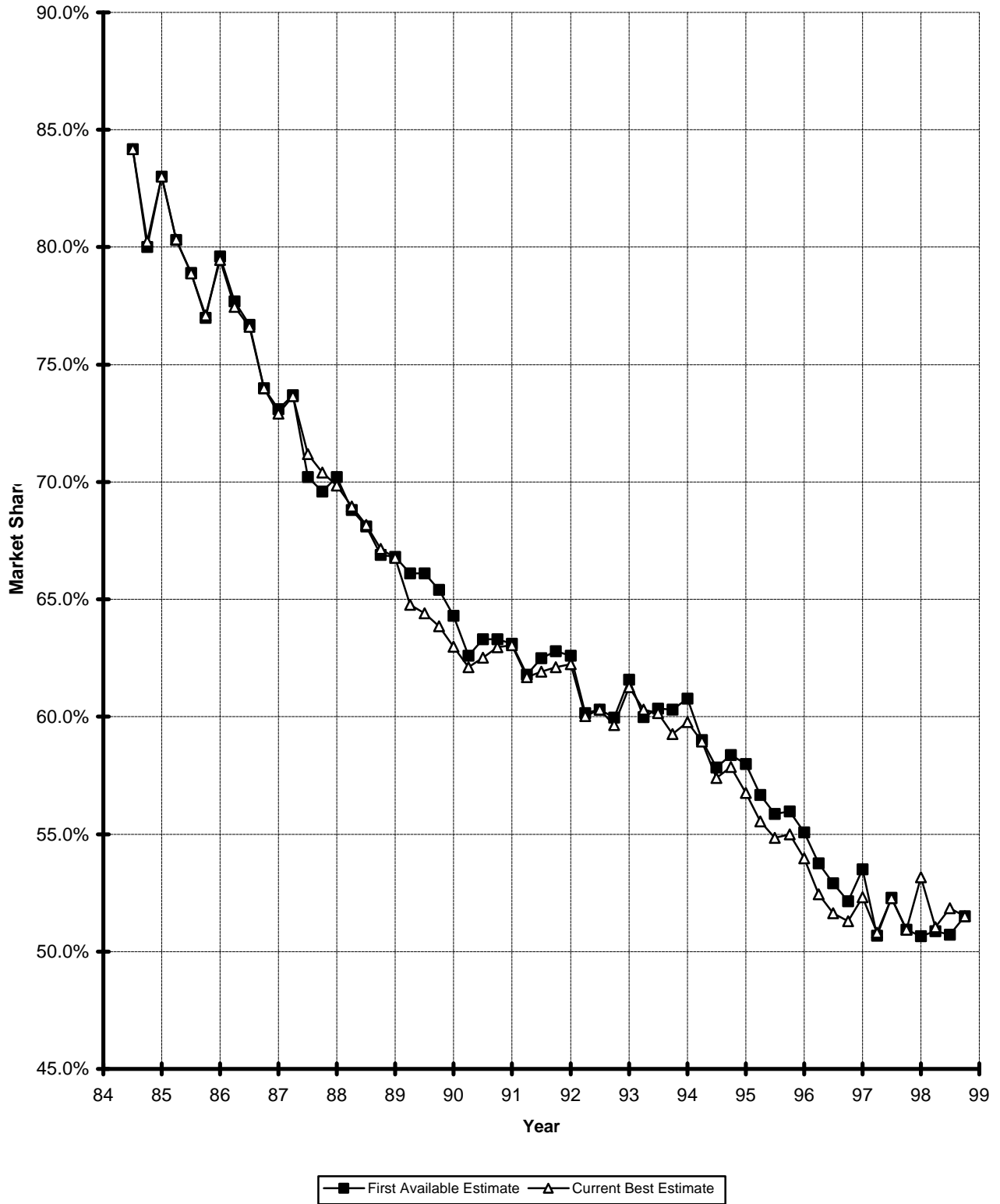


## APPENDIX 1: AT&T'S MARKET SHARE

NECA revisions of total industry minutes affect the market share calculated for AT&T because total minutes represent the denominator of the market-share ratio. In Chart A1.1, AT&T's share of interstate switched minutes (based on current information) is compared with its market share as first published. As shown there, AT&T's market share is usually highest initially and then decreases after NECA revises the estimates.

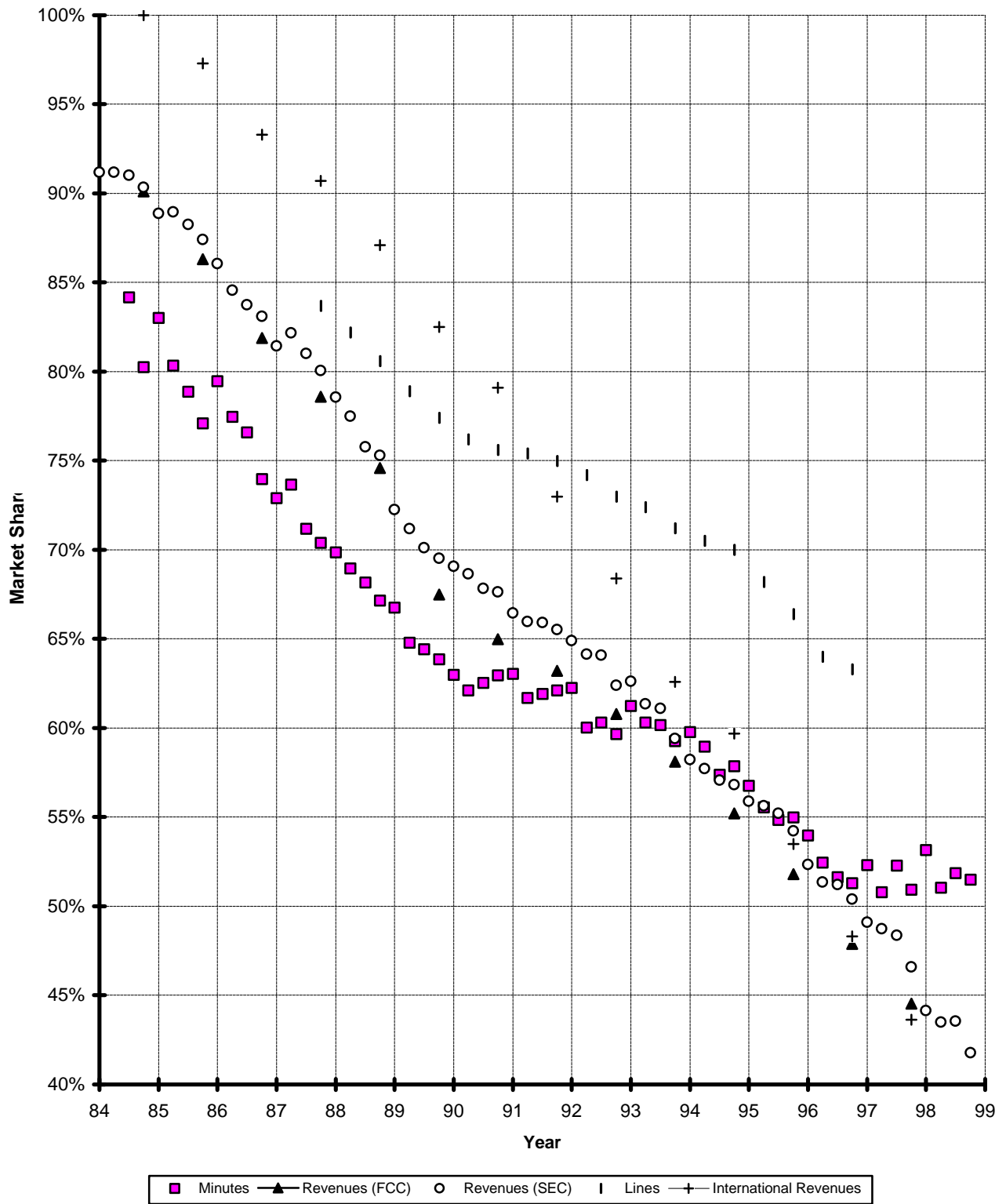
Chart A1.2 is a composite of the alternative measures of AT&T's market share based on minutes, lines and revenues. By all measures AT&T's share of the long distance market has decreased significantly since 1984.

CHART A1.1 - AT&T SHARE OF INTERSTATE MINUTES





**CHART A1.2 - INDICATORS OF AT&T MARKET SHARE**



## APPENDIX 2: PREMIUM VS. NON-PREMIUM ACCESS MINUTES

Table A2.1 shows "premium" minutes as reported by NECA separately from "non-premium" minutes. Premium minutes consist of all carriers dial 1 access minutes in equal access areas and only AT&T's access minutes in areas where equal access is not available. Prior to AT&T's divestiture of its local operating companies in 1984, competitors were unable to obtain connections with local telephone companies that were of equal quality to those offered to AT&T. After the divestiture, local companies began to offer equal access to all long distance carriers. More than 99% of the nation's lines have now been converted to equal access. As non-equal access minutes have virtually disappeared, there is no longer any significant difference between the number of total minutes and the number of equal access minutes.

**APPENDIX 2**

**TABLE A2.1 - PREMIUM VS. NON-PREMIUM ACCESS MINUTES  
(FIGURES SHOWN IN BILLIONS)**

	TOTAL INDUSTRY		
	PREMIUM MINUTES	NON-PREMIUM MINUTES	TOTAL MINUTES
1984 THIRD QUARTER	32.0	5.5	37.5
FOURTH QUARTER	33.6	6.0	39.6
1985 FIRST QUARTER	32.9	6.6	39.6
SECOND QUARTER	34.9	6.6	41.5
THIRD QUARTER	36.6	6.2	42.8
FOURTH QUARTER	38.0	5.3	43.3
TOTAL 1985	142.4	24.7	167.1
1986 FIRST QUARTER	38.8	4.3	43.0
SECOND QUARTER	41.0	3.8	44.8
THIRD QUARTER	43.2	3.5	46.7
FOURTH QUARTER	45.5	3.0	48.5
TOTAL 1986	168.5	14.6	183.1
1987 FIRST QUARTER	48.0	3.2	51.2
SECOND QUARTER	49.3	3.1	52.5
THIRD QUARTER	52.1	2.9	55.0
FOURTH QUARTER	54.4	2.6	57.0
TOTAL 1987	203.9	11.9	215.7
1988 FIRST QUARTER	56.6	2.4	59.0
SECOND QUARTER	57.3	2.3	59.6
THIRD QUARTER	59.8	2.3	62.1
FOURTH QUARTER	61.8	2.2	64.0
TOTAL 1988	235.4	9.2	244.6
1989 FIRST QUARTER	64.1	2.1	66.2
SECOND QUARTER	66.5	2.0	68.5
THIRD QUARTER	67.7	2.0	69.7
FOURTH QUARTER	70.7	1.9	72.6
TOTAL 1989	269.1	8.0	277.1
1990 FIRST QUARTER	72.9	1.9	74.7
SECOND QUARTER	74.0	1.8	75.8
THIRD QUARTER	76.1	1.8	77.9
FOURTH QUARTER	77.4	1.6	79.1
TOTAL 1990	300.4	7.1	307.4
1991 FIRST QUARTER	77.7	1.5	79.2
SECOND QUARTER	80.4	1.5	81.9
THIRD QUARTER	81.2	1.4	82.6
FOURTH QUARTER	83.0	1.4	84.4
TOTAL 1991	322.2	5.8	328.0

**APPENDIX 2**

**TABLE A2.1 - PREMIUM VS. NON-PREMIUM ACCESS MINUTES (CONT'D)  
(FIGURES SHOWN IN BILLIONS)**

	TOTAL INDUSTRY		
	PREMIUM MINUTES	NON-PREMIUM MINUTES	TOTAL MINUTES
1992 FIRST QUARTER	84.5	1.2	85.6
1992 SECOND QUARTER	85.4	1.1	86.5
1992 THIRD QUARTER	86.8	1.0	87.9
1992 FOURTH QUARTER	88.8	1.0	89.8
1992 TOTAL	345.5	4.2	349.7
1993 FIRST QUARTER	89.8	0.9	90.6
1993 SECOND QUARTER	90.4	0.8	91.2
1993 THIRD QUARTER	92.9	0.7	93.6
1993 FOURTH QUARTER	95.2	0.6	95.9
1993 TOTAL	368.3	3.0	371.2
1994 FIRST QUARTER	98.1	0.6	98.7
1994 SECOND QUARTER	97.4	0.5	97.9
1994 THIRD QUARTER	101.4	0.5	101.9
1994 FOURTH QUARTER	102.4	0.5	102.9
1994 TOTAL	399.3	2.1	401.4
1995 FIRST QUARTER	105.1	0.4	105.6
1995 SECOND QUARTER	106.4	0.4	106.8
1995 THIRD QUARTER	108.6	0.4	109.0
1995 FOURTH QUARTER	110.2	0.4	110.6
1995 TOTAL	430.3	1.6	431.9
1996 FIRST QUARTER	115.3	0.3	115.7
1996 SECOND QUARTER	114.4	0.3	114.7
1996 THIRD QUARTER	117.2	0.3	117.5
1996 FOURTH QUARTER	120.0	0.2	120.2
1996 TOTAL	466.9	1.2	468.1
1997 FIRST QUARTER	121.9	0.2	122.1
1997 SECOND QUARTER	124.3	0.2	124.4
1997 THIRD QUARTER	124.8	0.2	124.9
1997 FOURTH QUARTER	125.7	0.1	125.8
1997 TOTAL	496.6	0.7	497.3
1998 FIRST QUARTER	123.9	0.1	124.0
1998 SECOND QUARTER	131.3	0.1	131.4
1998 THIRD QUARTER	131.8	0.1	131.9
1998 FOURTH QUARTER	132.7	0.1	132.8
1998 TOTAL	519.8	0.4	520.1

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Publication: Long Distance Market Shares, March 1999

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