



# NEWS

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FOR IMMEDIATE RELEASE  
April 3, 2001

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## FCC RELEASES INTERNATIONAL TRENDS REPORT

Washington, D.C. -- The Federal Communications Commission (FCC) today released a report prepared by the Common Carrier Bureau's Industry Analysis Division entitled *Trends in the International Telecommunications Industry*.

The report consists of 29 statistical tables tracing trends in the U.S. international telecommunications industry. These tables contain information relating to international traffic, circuits, pricing, and accounting rates.

### Statistical Findings

- The average revenue billed for a minute of international telephone service declined from \$1.34 in 1980 to \$0.53 in 1999. The number of U.S. billed minutes increased from 1.6 billion to 28.4 billion during the same period. U.S. billed minutes increased by 17% in 1999 compared to the year before.
- In 1975, international telephone service represented less than 5% of the revenues U.S. carriers received from providing long distance services. It grew to 19% of overall toll revenues over the next 20 years and then dropped to 18% in 1998 and 17% in 1999. The relative amount of international toll revenue declined because of significant price reductions for international calling.
- Private line service revenues, although only a small percentage of total international service revenues, have grown rapidly in recent years, from about \$0.5 billion in 1995 to \$1.2 billion in 1999.
- The decrease in settlement rates has more than offset the increase in U.S. billed minutes. The result was that net settlement payments from U.S. carriers to foreign carriers declined from \$5.7 billion in 1996 to \$4.6 billion in 1999.
- Declines in prices and increases in traffic are linked to dramatic increases in cable capacity and decreasing costs per circuit. Cable investment costs represent less than one-cent per-conversation minute on new systems and new per-circuit cable costs continue to fall.

The report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, S.W., Washington, D.C. 20554. Copies may be purchased by calling International Transcription Services, Inc. (ITS) at (202) 857-3800. The report, including the spreadsheets containing the report's statistical tables and the figures, can be downloaded [file names: ITRND00.ZIP or ITRND00.PDF] from the **FCC-State Link** Internet site at <http://www.fcc.gov/ccb/stats>.

-FCC-

Common Carrier Bureau contacts: Linda Blake or Jim Lande at (202) 418-0940; TTY (202) 418-0484.

# Trends in the International Telecommunications Industry

April 2001

Linda Blake  
Jim Lande

Industry Analysis Division  
Common Carrier Bureau  
Federal Communications Commission  
Washington, DC 20554



This report is available for reference in the FCC's Information Center at 445 12<sup>th</sup> Street, S.W., Courtyard Level. Copies may be purchased by calling International Transcription Service, Inc. at (202) 857-3800. The report can also be downloaded [file names: ITRND00.ZIP, ITRND00.PDF] from the **FCC-State Link** Internet site at <http://www.fcc.gov/ccb/stats>.

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## Customer Response

Publication: Trends in the International Telecommunications Industry (April 2001).

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

1. Please check the category that best describes you:

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- business customer evaluating vendors/service options
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Questions? Contact Linda Blake (202-418-0945) or [ <a href="mailto:lblake@fcc.gov">lblake@fcc.gov</a> ] Jim Lande (202-418-0948) or [ <a href="mailto:jlande@fcc.gov">jlande@fcc.gov</a> ]		
Fax this response to 202-418-0520	Or	Mail this response to FCC/IAD Mail Stop 1600 F Washington, DC 20554

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# Trends in the International Telecommunications Industry

## Overview

This report traces the development of the international telecommunications industry from 1950 to the present. Most of the data presented herein came from carrier tariffs, accounting rate agreements, and annual statistical reports, such as the international traffic data and circuit status reports filed pursuant to sections 43.61 and 43.82 of the Commission's rules. Much of the data presented in this report were previously published in the *Statistics of Communications Common Carriers (SOCC)* and in annual *Section 43.61 International Telecommunications Data* reports released by the Common Carrier Bureau and *Section 43.82 Circuit Status Data* reports released by the International Bureau. Annual volumes of the SOCC and recent editions of the traffic data and circuit status reports are available in the Federal Communications Commission's Reference Information Center, Courtyard Level, 445 12th Street S.W., Washington, D.C. 20554, (202) 418-0270. Recent data from these sources also are available from the **FCC-State Link** at <http://www.fcc.gov/ccb/stats> and <http://www.fcc.gov/ib/td/pf/csmanual.html>.

Tables 1 through 5 present an overview of economic trends in the industry. Tables 6 through 14 provide detailed data for 40 countries. Tables 15 through 19 provide detailed traffic data by region of the world. Tables 20 through 25 provide price and accounting rate information for the same 40 countries. Tables 26 through 29 provide traffic information for selected carriers. Figures 1 through 16 use information from these tables to highlight selected trends. Appendix A presents technical notes on the traffic data. Appendix B provides sources of additional information.

## Trends

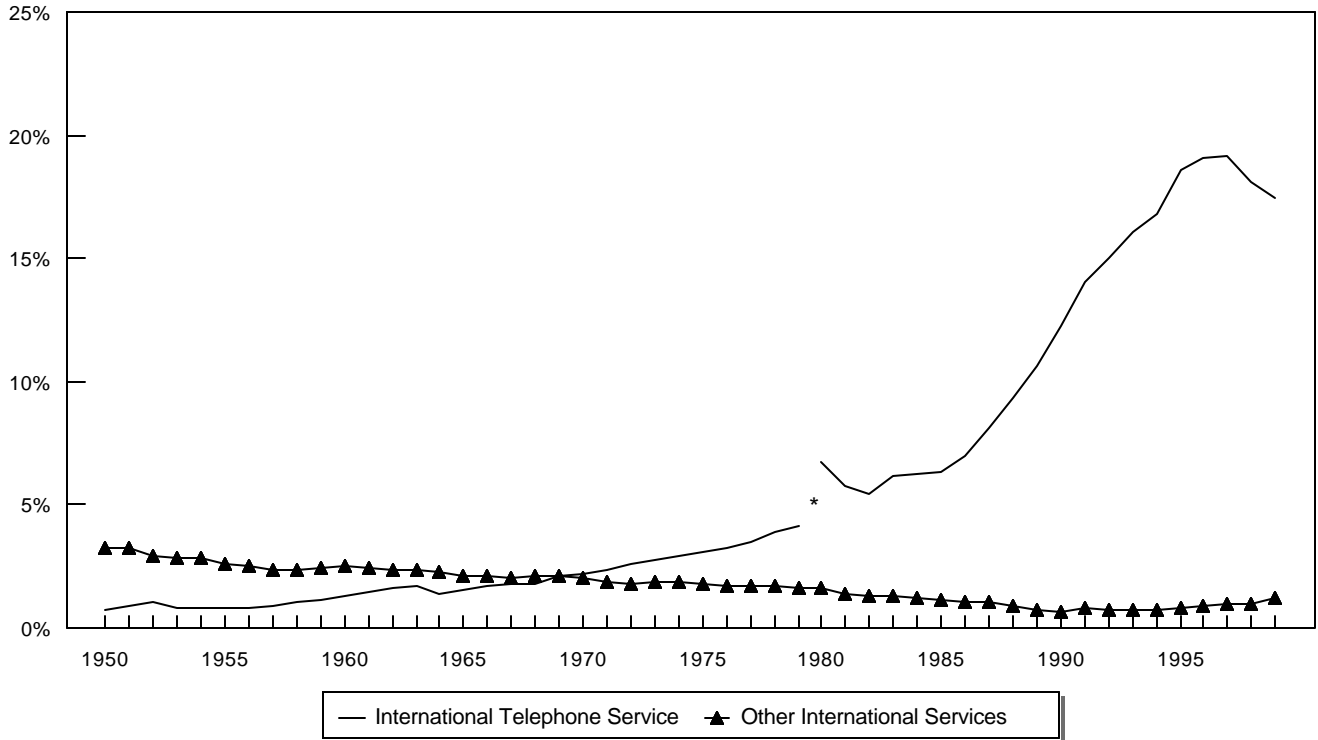
- In 1975, international service represented less than 5% of the revenues U.S. carriers received from providing all long distance services. It grew to 19% of overall toll revenues over the next 20 years and then dropped to 18% in 1998 and 17% in 1999. The relative amount of international toll revenue declined because of significant price reductions for international calling. See Figure 1 and Table 1, Table 2, and Table 3.
- In 1950, telegraph service accounted for 80% of international service revenues. Today, telephone service accounts for about 95% of international service revenues. See Figure 2 and Table 1.
- Private line service revenues, although only a small percentage of total international service revenues, have grown rapidly in recent years from about \$0.5 billion in 1995 to \$1.2 billion in 1999. See Table 1.
- The average revenue billed to end users for a minute of international telephone service declined from \$1.34 in 1980 to \$0.53 in 1999. The number of U.S. billed minutes increased from 1.6 billion to 28.4 billion during the same period. U.S. billed minutes increased by 17% in 1999 compared to the year before. See Table 2.
- When a call originates in the United States, typically a U.S. carrier provides for the origination of the call and a foreign carrier provides for termination of the call. The two carriers jointly carry the call between the countries. The U.S. carrier bills the customer and owes a settlement payment to the foreign carrier. At one point in the early 1980s these settlement payments represented almost three-quarters of the amounts billed to U.S. customers for international calls. Today, these payments represent less than half of the billed revenues for international calls. See Figure 3 and Table 2.
- For almost all countries, the per-minute settlement payments are symmetrical – with the U.S. carrier receiving the same per-minute payment when it completes a call for a foreign carrier as it pays when the foreign carrier completes a call for it. The U.S. settlement payments owed, however, have been significantly higher than the average U.S. settlement receipts due. See Table 2. Some of this is due to traffic imbalances. Another significant factor is that U.S. carriers terminate a significant amount of collect calls and pay foreign carriers surcharges for these calls. U.S. carriers receive surcharges when U.S. residents place collect calls to other countries, but it is much more common for U.S. residents to receive collect calls.
- U.S. carriers net retained revenue per-minute (billed amounts less settlement payments plus settlement receipts, divided by all originating and terminating minutes) has dropped significantly. See Figure 4 and Table 2.



- International calling has grown rapidly over time. Over the last 6 years, U.S. billed minutes of calling have been growing at about 16% per year compared with about 12% per year for foreign billed minutes of calling. See Figure 5 and Table 3.
- New traffic arrangements such as “country direct” and “call reorigination account for some of the differential in growth rates. With country direct service, U.S. carriers bill for calls that otherwise might be billed by foreign carriers. With call reorigination, U.S. carriers report as U.S. billed calls traffic that otherwise might be reported as a foreign billed call. U.S. billed minutes grew at 14% per year if this traffic is removed. See Table 3. The growth rate would be even lower if call-back traffic could be removed from the traffic statistics. See annual *Section 43.61 International Telecommunications Data* reports for detailed descriptions of different traffic arrangements.
- From 1980 through 1996, the imbalance in growth rates more than offset the decline in settlement rates. The result was that net settlement payments to foreign carriers grew from \$300 million in 1980 to \$5.7 billion in 1996. During the last three years, the decline in settlement rates more than offset the growth rate in U.S. billed minutes. The settlement amount declined to \$4.6 billion in 1999. See Figure 6 and Table 3.
- Relatively little information is available concerning the use of international telephone service in other countries. Generally, U.S. carrier billings have grown more rapidly than foreign carrier billings. See Table 4.
- Declines in prices and increases in traffic are linked to dramatic increases in cable capacity at decreasing costs per circuit. Cable investment costs represent less than one cent per-conversation minute on new systems and new per-circuit cable costs continue to fall. See Table 5.
- In 1990, almost half of all U.S. international calling was to Canada, Germany, Mexico, and the United Kingdom. However, traffic growth generally has been greater to other countries. As a result, international calling to Canada, Germany, Mexico, and the United Kingdom represented about 40% of traffic in 1999. See Figure 7 and Table 6.
- Return traffic is more concentrated. Canada, Germany, Mexico, and the United Kingdom accounted for about 60% of foreign billed minutes in 1999, up from 57% in 1990. See Figure 8 and Table 7.

- For routes with the most traffic, growth in minutes tends to be fairly smooth over time. Routes with lower volumes of traffic are more likely to show changes in growth rates over time. This may indicate that reporting is more reliable for the routes with the most traffic. See Figures 9 and 10 and Table 6.
- Over the past five years, prices for calls to each of the 40 countries tracked in the tables have declined. In general, declines have been greatest where the per-minute charges were highest initially. See Figure 11 and Table 9.
- Net settlement payments to an individual country change because of changes in traffic patterns and changes in settlement rates. Country-to-country and period-to-period differences for net settlement payments are much greater than for other traffic statistics. For example, the net settlement payments from U.S. carriers to carriers in Canada decreased from \$125 million in 1995 to \$48 million in 1999. The net settlement payments to carriers in India more than doubled over the same period. See Figure 12 and Table 10.
- AT&T basic schedule international rates have increased significantly in recent years. AT&T discount rates have increased slightly. Billed revenue per minute, however, has declined significantly. See Figure 13 and Tables 20 through 23. This may reflect several factors including customers shifting from basic rate plans to discount plans, price decreases to high volume business customers, and an increasing share of minutes being sold through resellers (some as calling card traffic).
- For ordinary calls, the settlement payout per minute is equal to half the accounting rate shown in Table 24. In recent years, the average price charged to customers has been roughly equal to the average accounting rate. Prices have been declining by about the same amount as accounting rates. The net amount that carriers retain for handling all international traffic is a function of both the amounts they retain for calls they bill and the amounts they receive when they terminate calls for foreign carriers. The net amount has not declined as rapidly as either billed revenue per minute or accounting rates. See Figure 14 and Tables 2, 3, 9, and 25.
- Total U.S. billed revenues for international telephone service declined from 1997 to 1999 even as U.S. billed international minutes increased by about 25%. AT&T's share of international telephone service revenues has fallen significantly in recent years. See Figure 15, Table 3, and Tables 26 through 28.
- AT&T's U.S. billed minutes grew by about 7% per year from 1993 through 1999. However, since other carriers' traffic grew more rapidly, AT&T's share of U.S. billed minutes dropped a total of 24 percentage points over this period. Smaller carriers made the greatest gains. See Figure 16 and Table 29.

Figure 1: International Revenues: Percentages of Total Toll Revenues



\* IMTS revenue includes traffic to Canada and Mexico starting in 1980.

Figure 2: Types of Individual International Service Revenues: Percentages of Total International Revenues

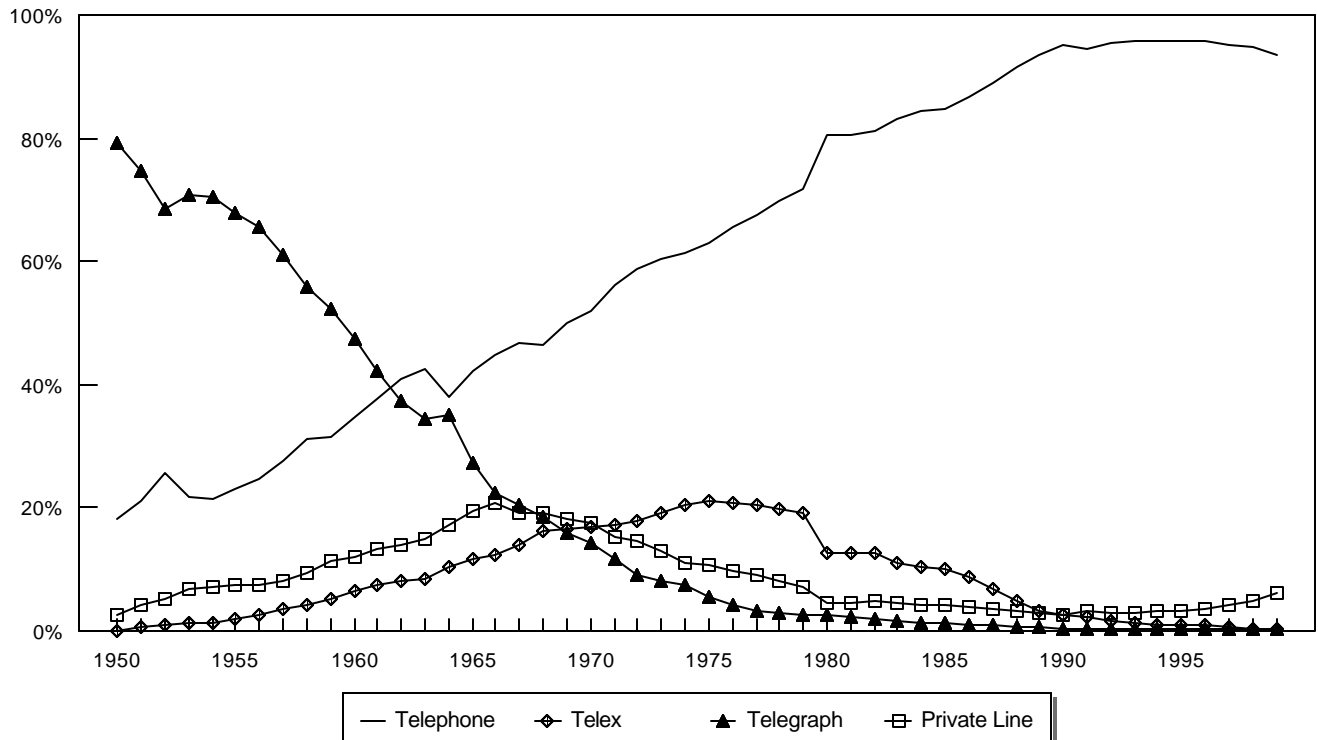


Figure 3: Total Revenues per U.S. Billed Minute

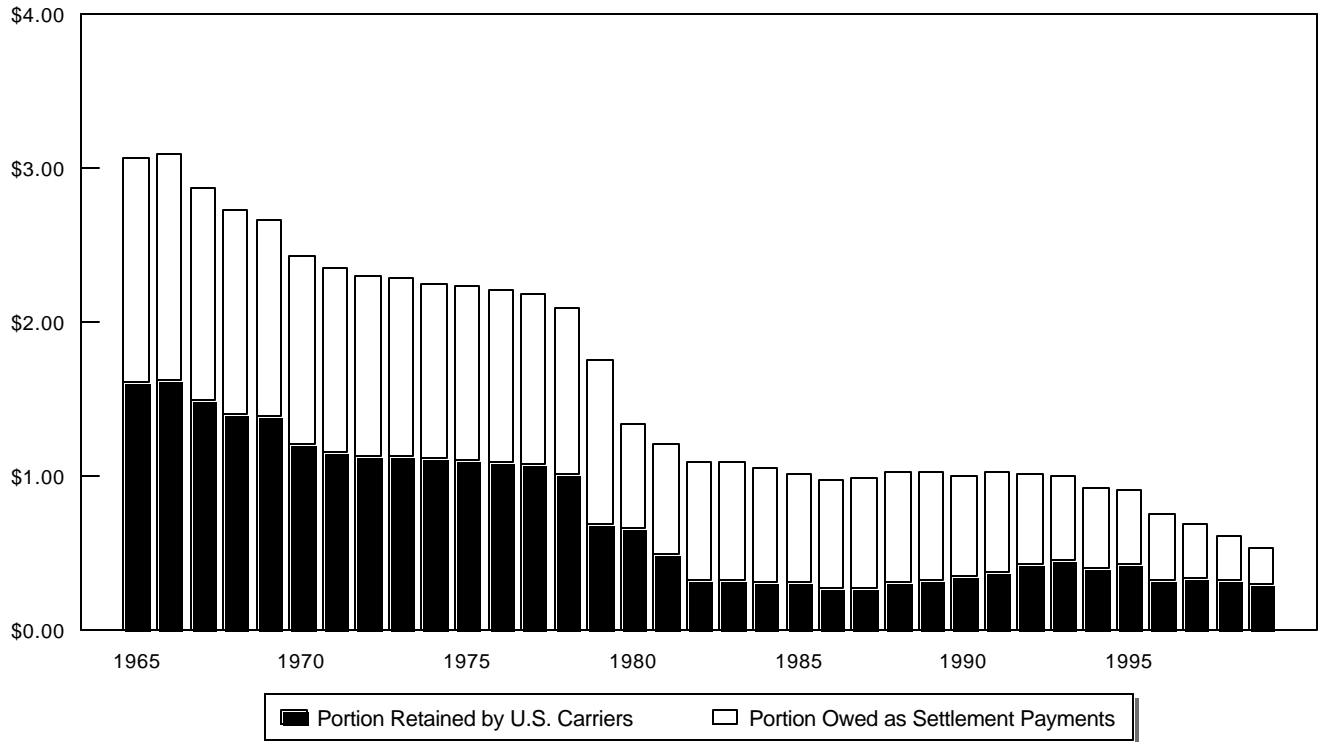


Figure 4: U.S. Carrier Retained Revenues per Minute: Weighted Average of U.S. and Foreign Billed Traffic

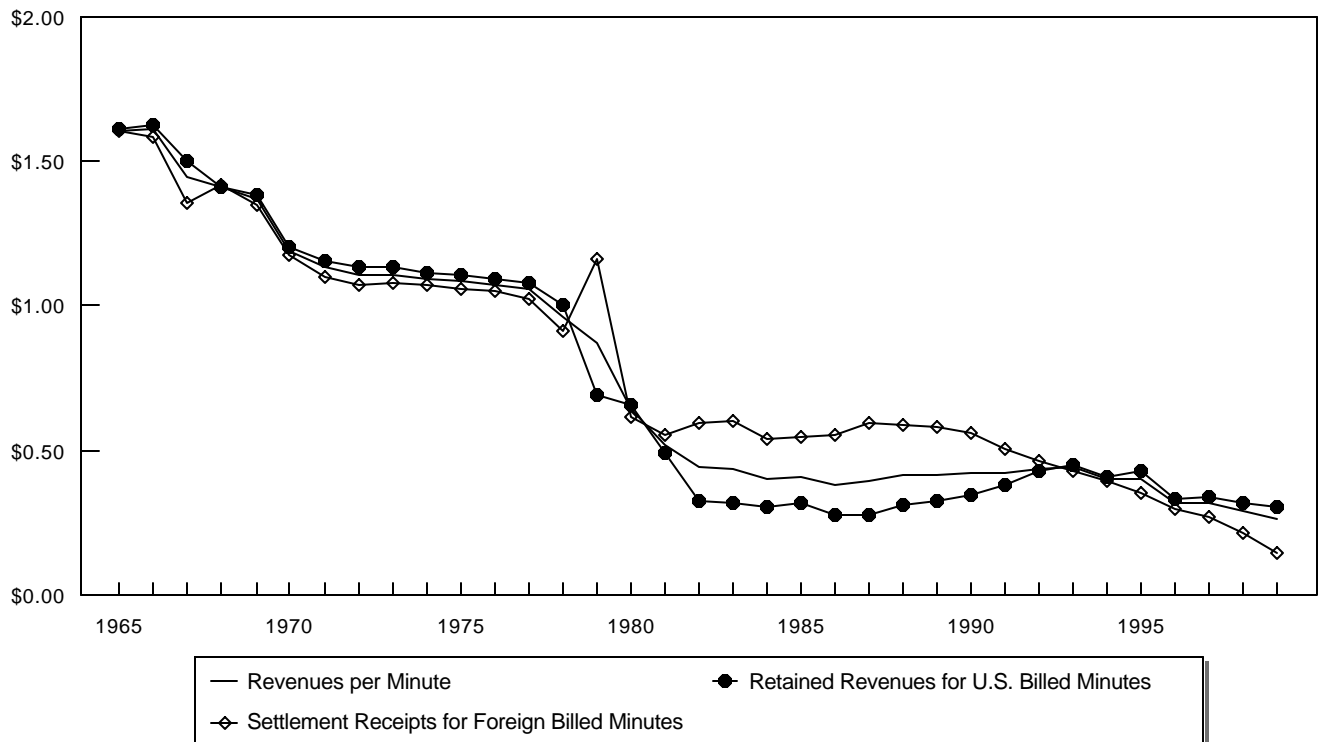


Figure 5: International Telephone Service: Minutes of Traffic

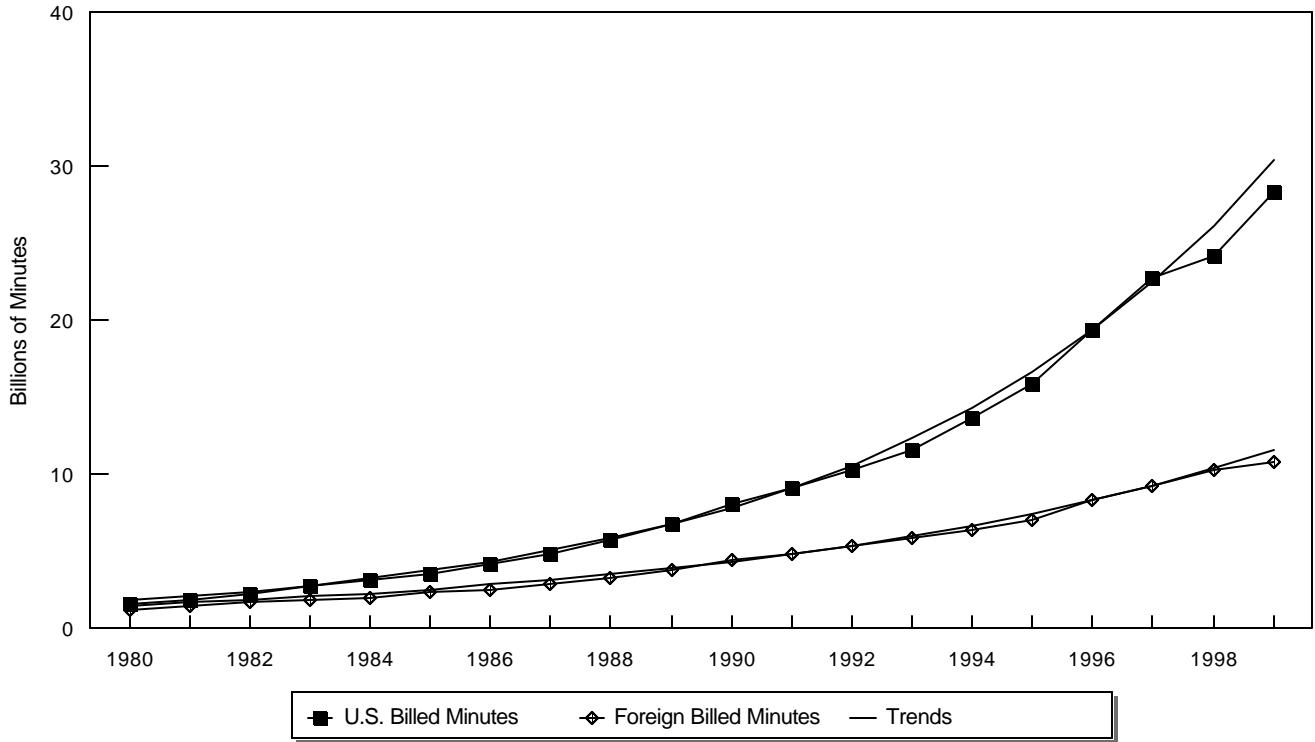


Figure 6: U.S. Carrier Net Settlement Payments

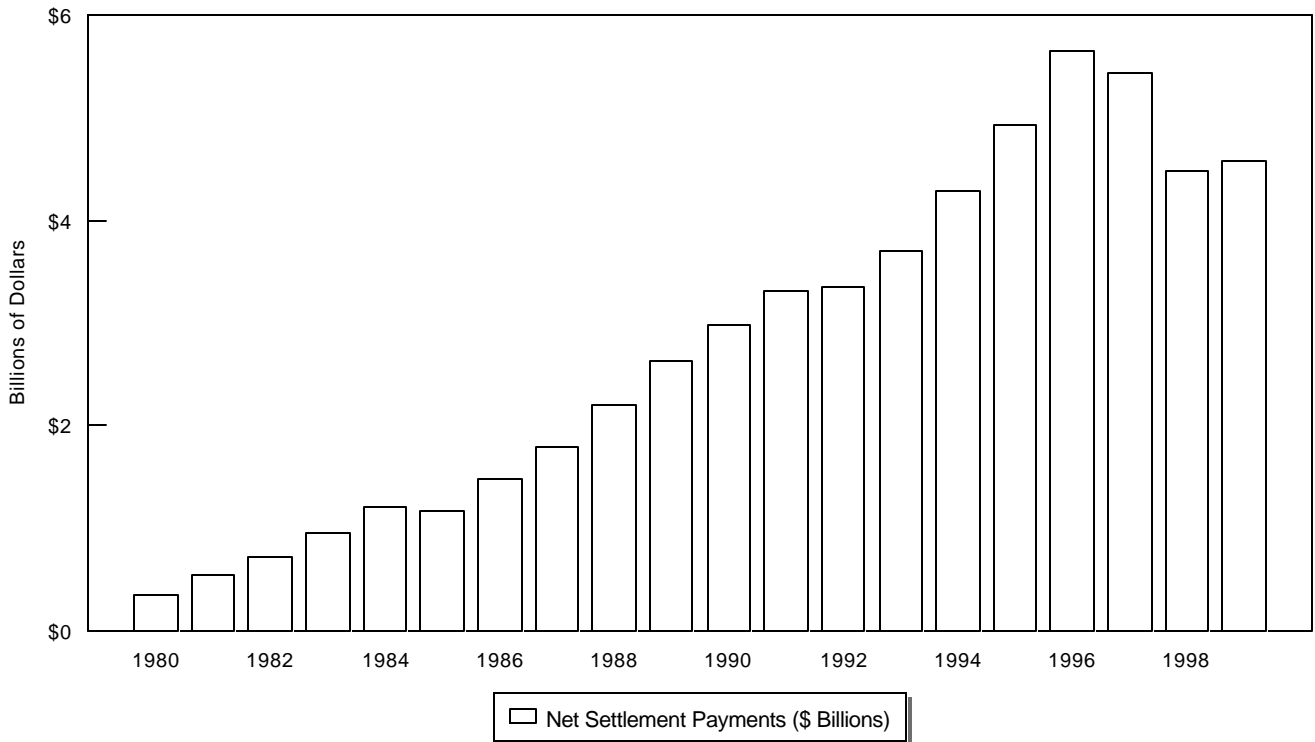


Figure 7: U.S. Billed Minutes of International Telephone Service by Groups of Countries

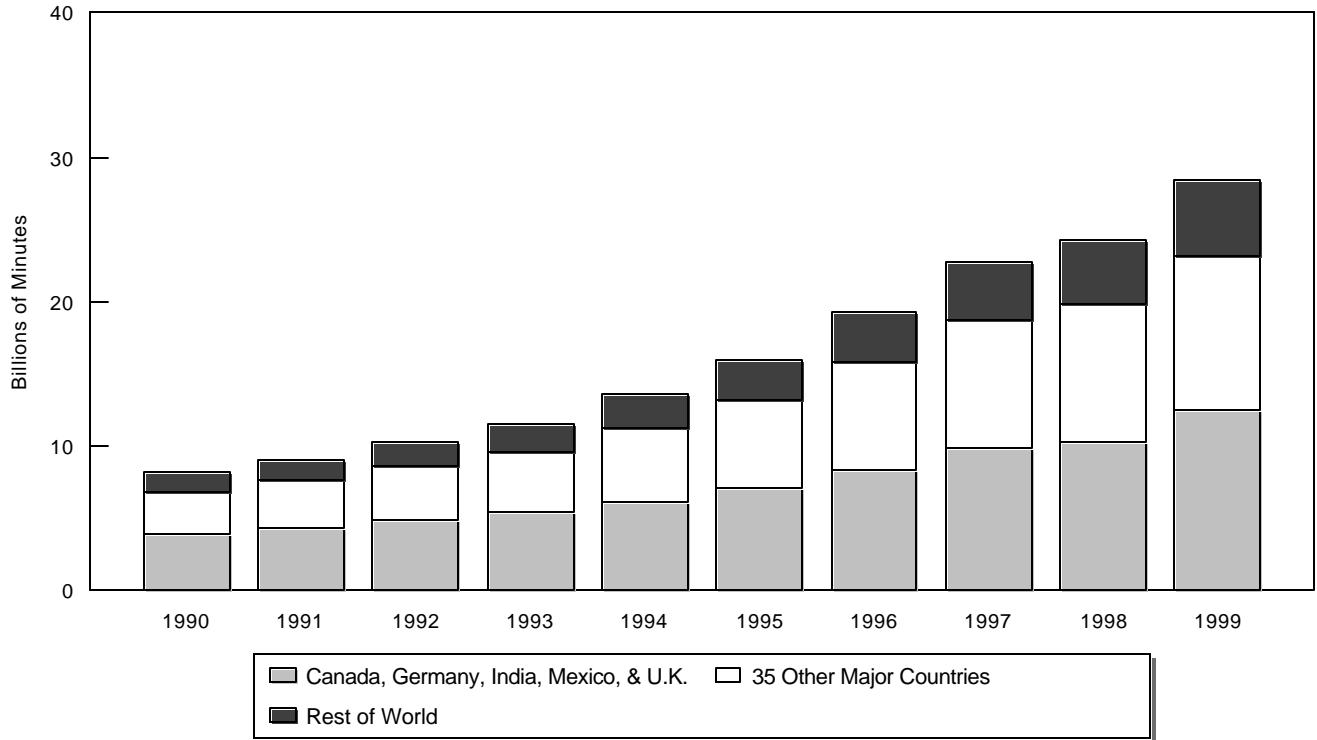


Figure 8: Foreign Billed Minutes of International Telephone Service by Groups of Countries

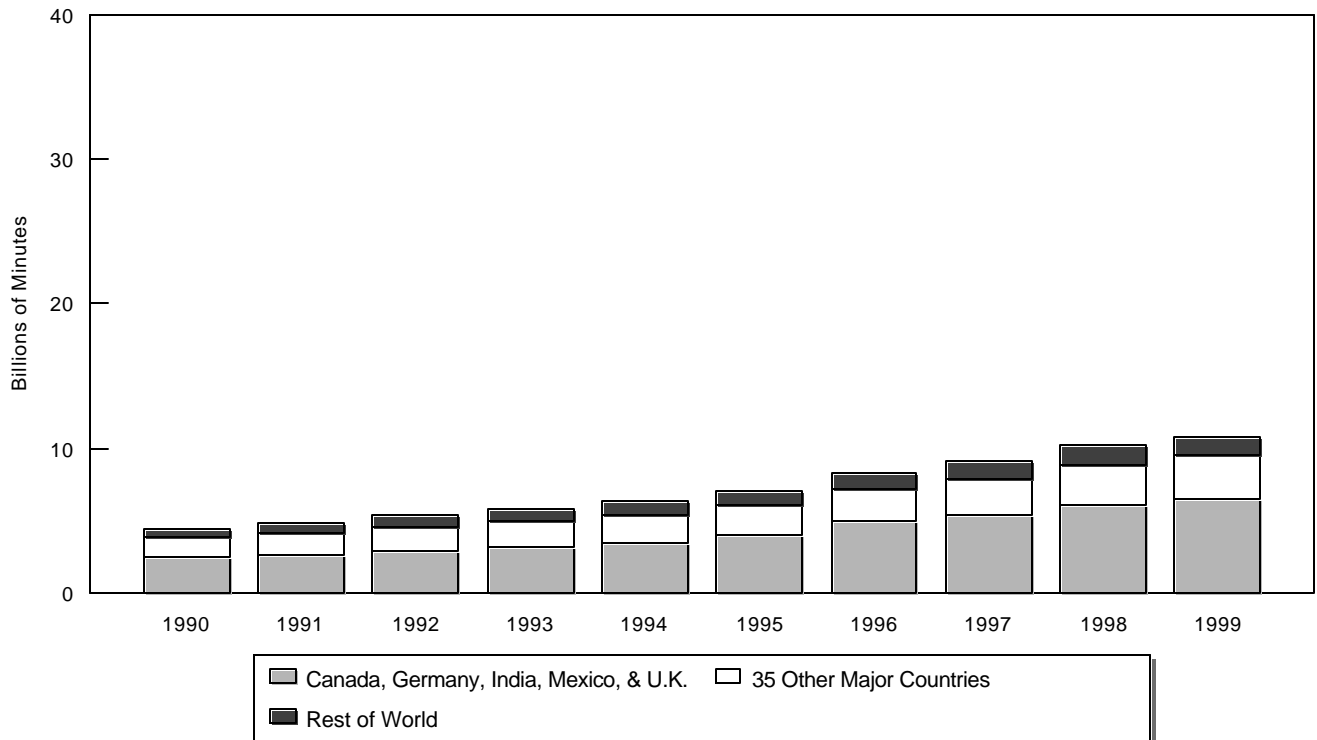


Figure 9: Minutes of U.S. Billed International Telephone Service for Countries with Greatest Volumes of Traffic

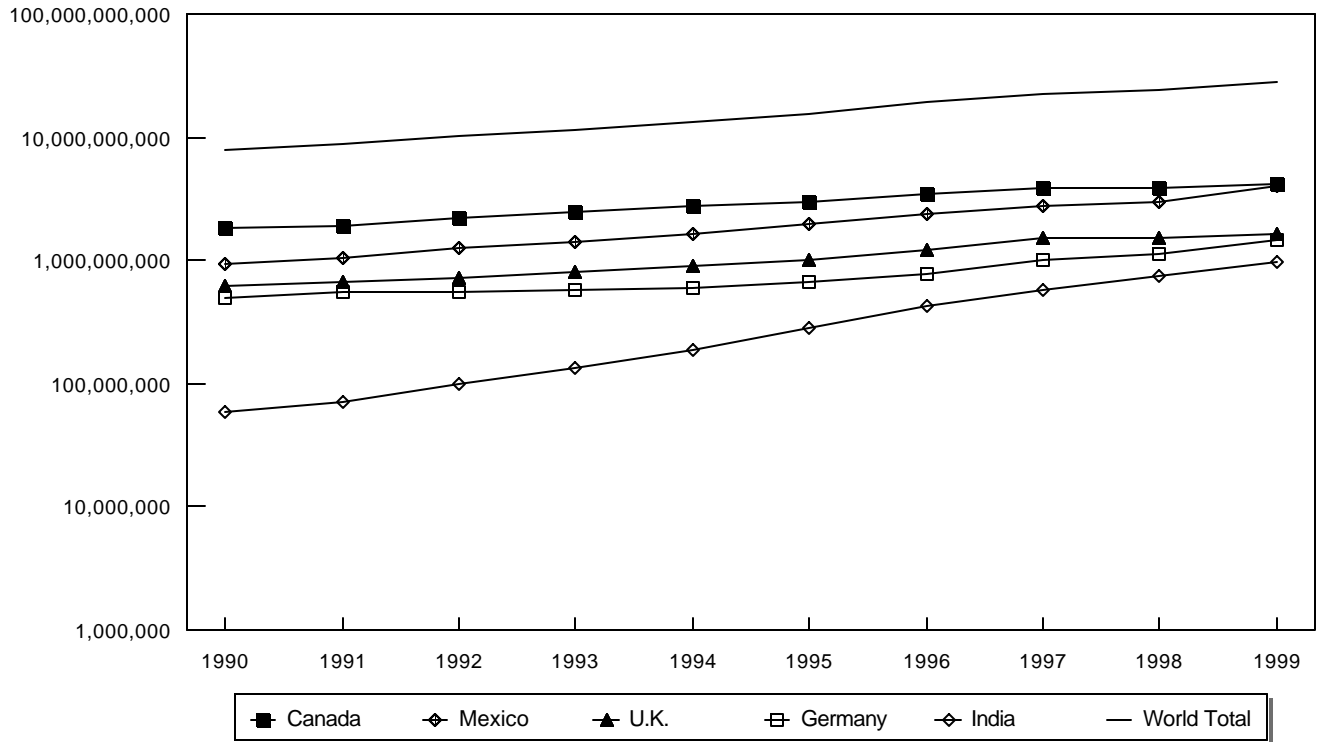


Figure 10: Minutes of U.S. Billed International Telephone Service for Countries with Lower Volumes of Traffic

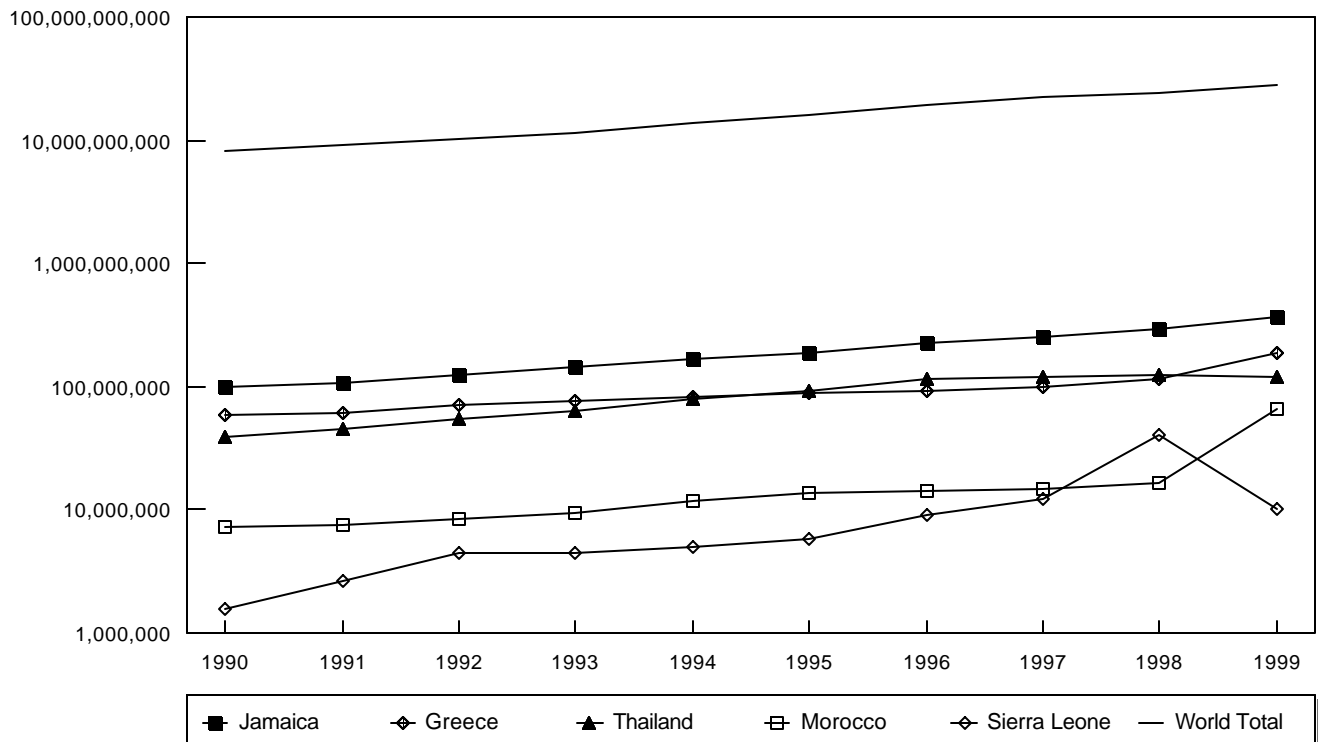


Figure 11: Costs of Calling Selected Countries Indicated by Billed Revenue per Minute

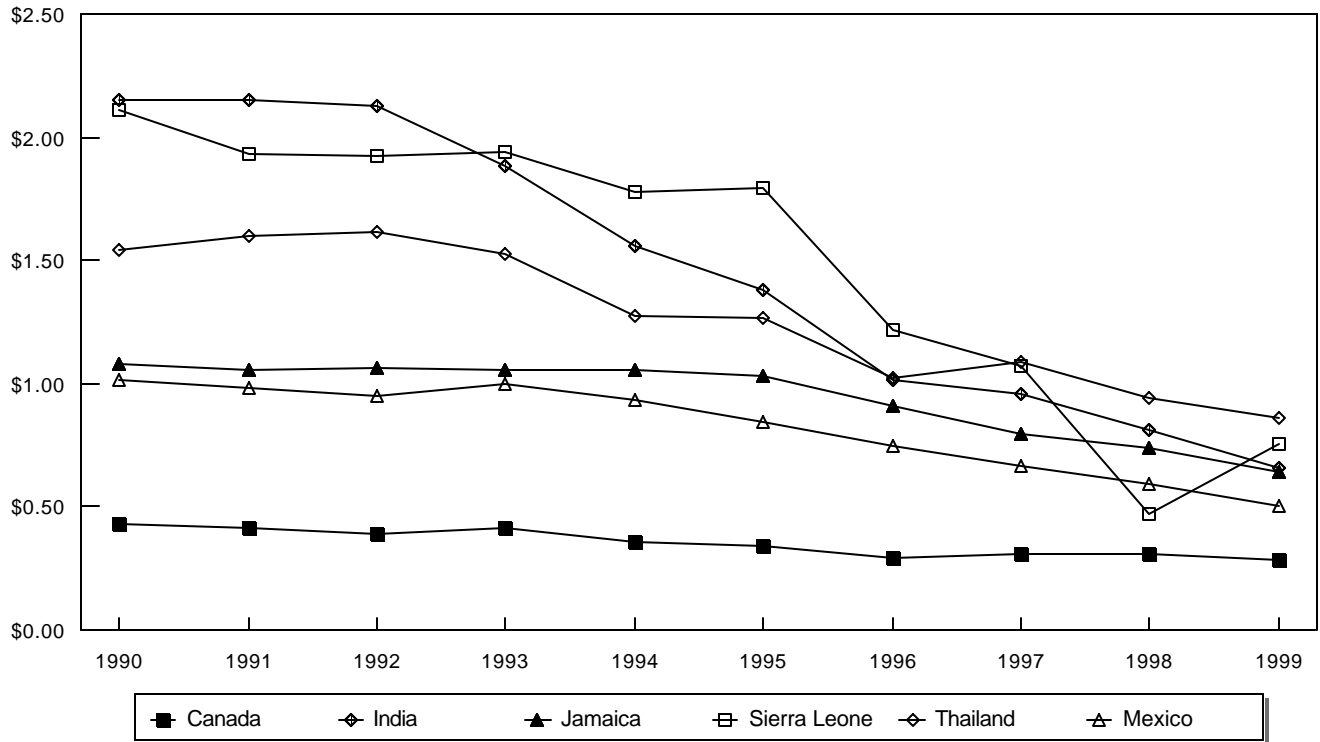


Figure 12: U.S. Carrier Net Settlement Payments for Selected Countries

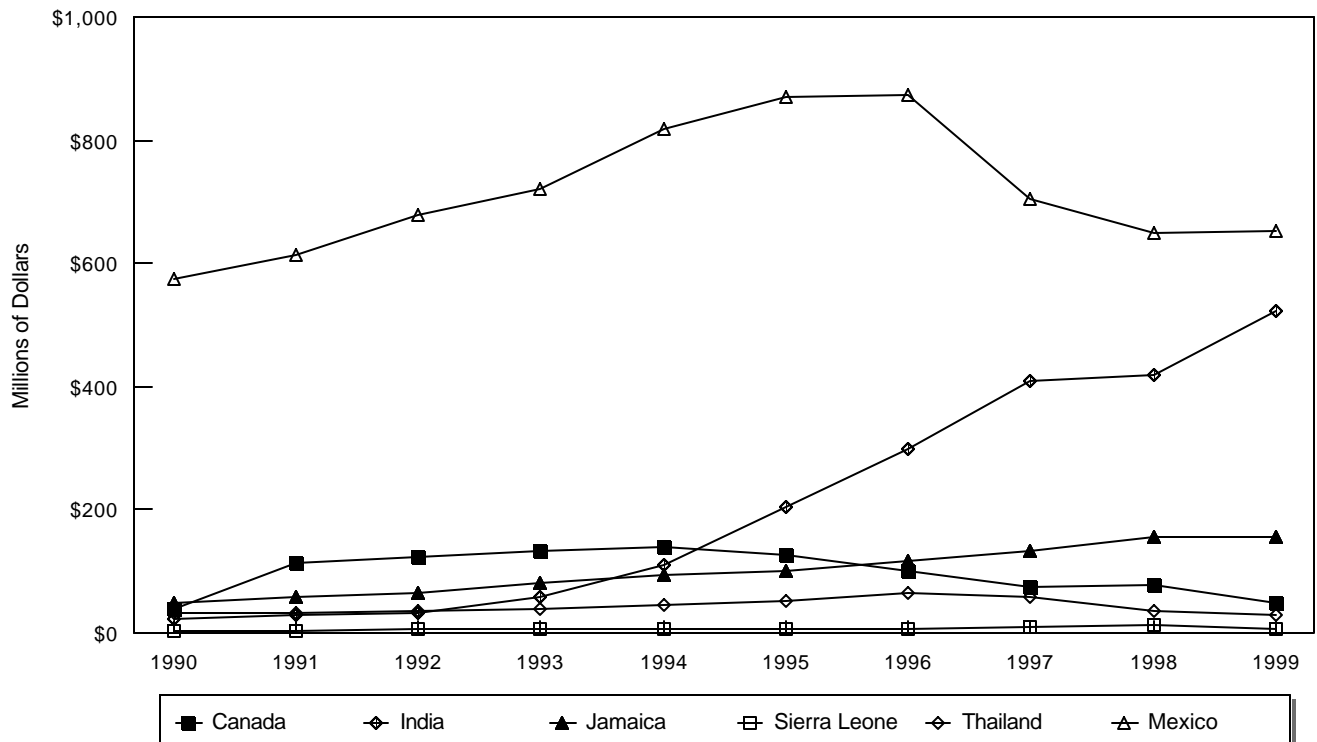




Figure 13: Peak-Period Basic Schedule Rates Compared with Average Billed Revenue per Minute

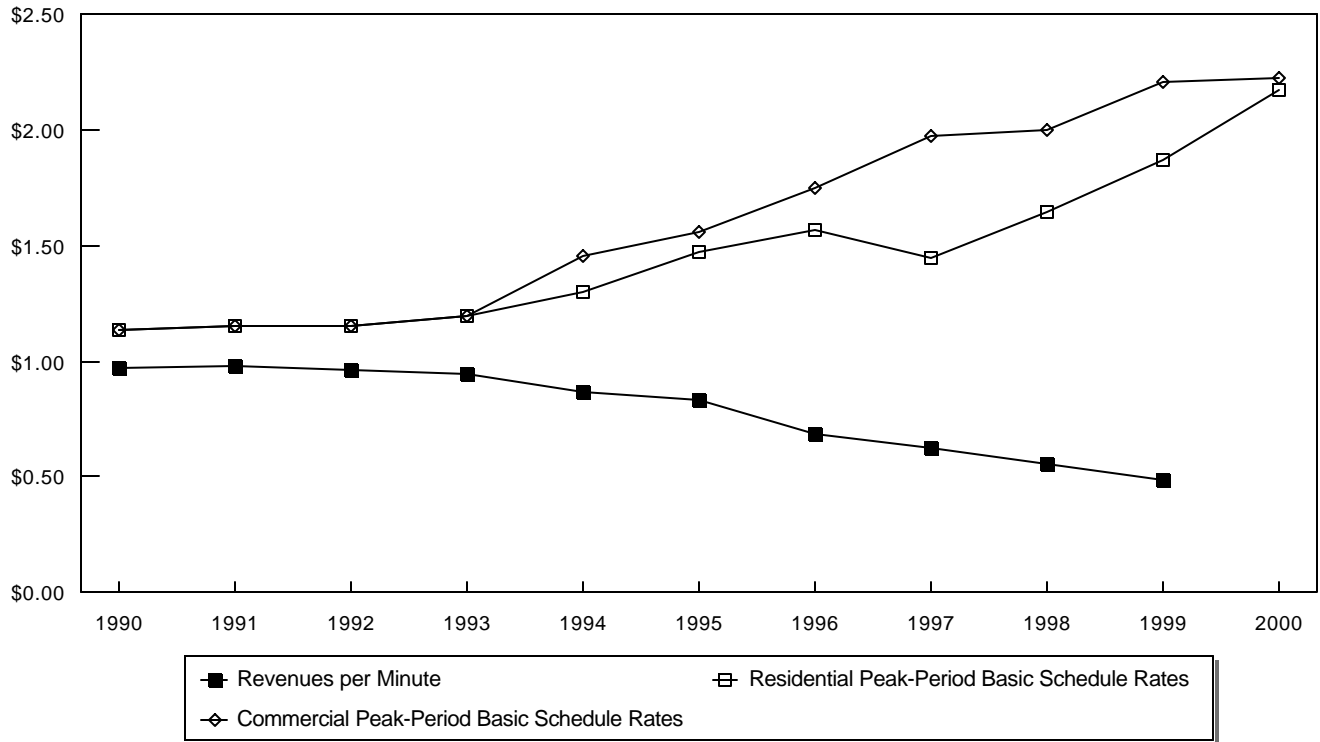


Figure 14: Accounting Rate per Minute  
U.S. Carrier Billed Revenues per U.S. Billed Minute  
U.S. Carrier Retained Revenues per international Minute

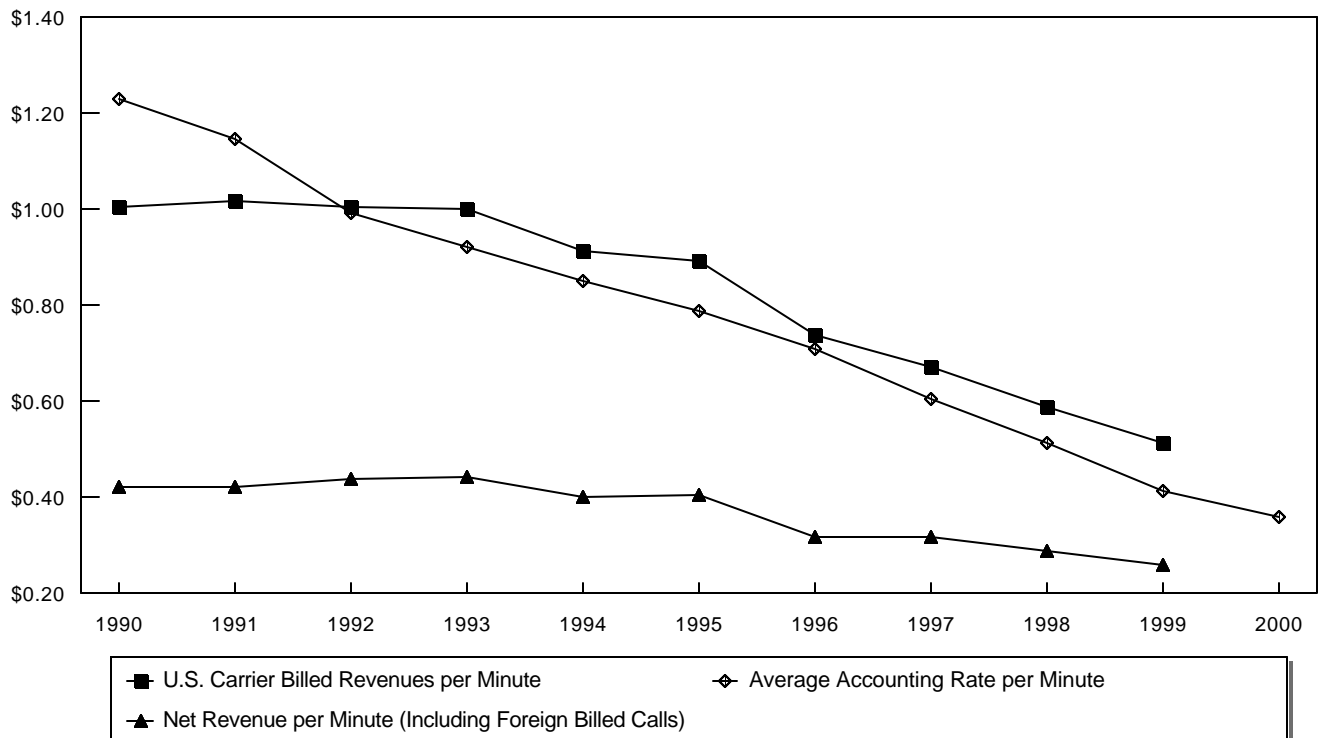


Figure 15: International Message Telephone Service: U.S. Billed Revenues by Carrier (Including Pure Resale Service)

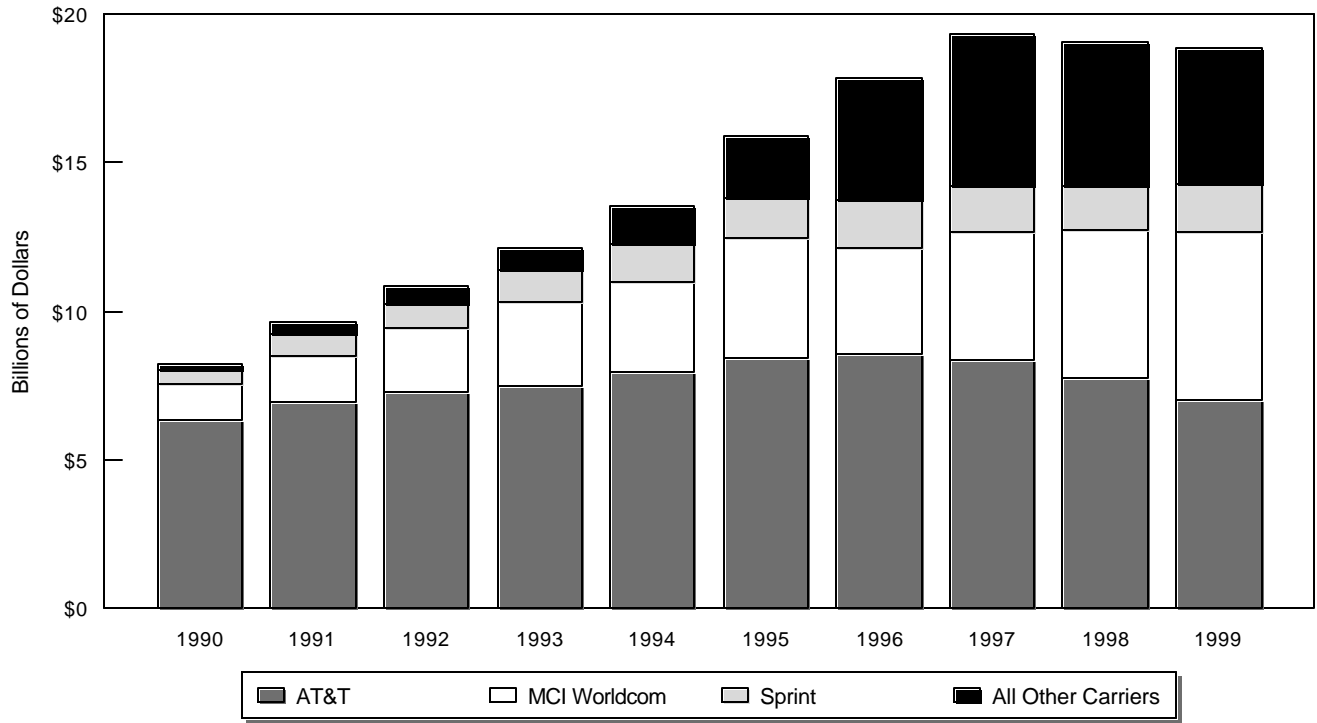
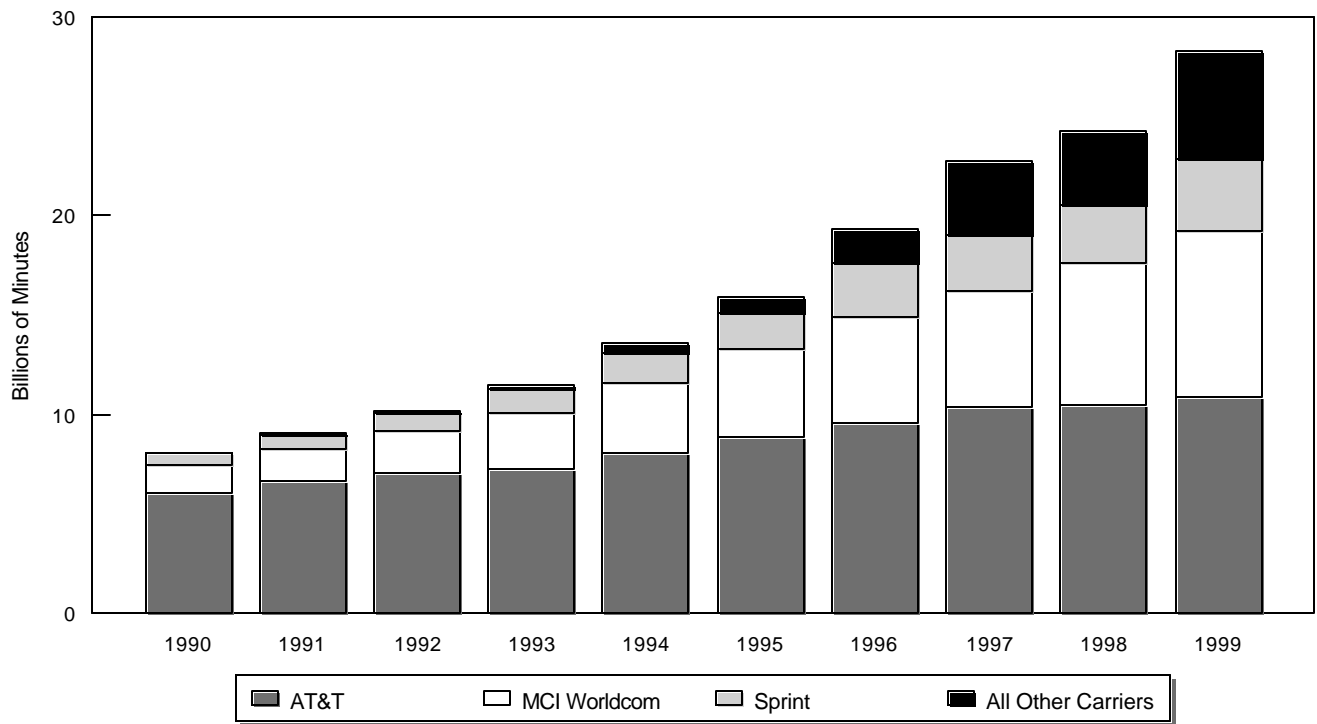


Figure 16: International Message Telephone Service: U.S. Billed Minutes by Carrier (Excluding Pure Resale Service)



**Table 1**  
**International and Domestic Toll Service Revenues**  
**(Revenue Amounts Shown in Millions)**

	International Service Revenues <u>1/</u>						Domestic Service Revenues	Total Toll Revenues <u>3/</u>	International as % of Total Toll Revenues		
	Telephone		Private Line		Miscellaneous					Total	
	Facilities-Based, Facilities-Resale, and ISR	Pure Resale <u>2/</u>	Telephone	Record	Telex	Telegraph					Other
1950	\$9.0		\$0.2	\$1.1		\$39.3	\$49.5	\$1,195	\$1,245	4.0 %	
1951	12.1		0.3	1.9	\$0.2	42.6	57.2	1,346	1,403	4.1	
1952	15.4		0.3	2.8	0.4	41.3	60.3	1,475	1,535	3.9	
1953	13.1		0.3	3.7	0.7	42.5	60.2	1,582	1,642	3.7	
1954	13.7		0.2	4.3	0.8	45.0	64.0	1,732	1,796	3.6	
1955	15.7		0.2	4.8	1.2	46.6	68.6	1,980	2,049	3.3	
1956	18.7		0.3	5.3	1.9	49.8	76.0	2,201	2,277	3.3	
1957	22.7		0.6	6.0	2.8	50.3	82.4	2,443	2,525	3.3	
1958	27.8		1.4	6.8	3.6	50.2	89.8	2,590	2,680	3.4	
1959	33.1		3.4	8.4	5.4	55.0	105.3	2,903	3,008	3.5	
1960	42.3		7.1	7.5	7.5	57.9	122.3	3,121	3,243	3.8	
1961	50.9		9.1	8.6	10.0	57.1	135.7	3,359	3,495	3.9	
1962	61.4		11.1	9.5	12.2	56.2	150.3	3,636	3,786	4.0	
1963	69.4		12.4	12.1	13.7	56.3	163.9	3,931	4,095	4.0	
1964	62.9		13.6	14.6	17.2	58.0	166.3	4,449	4,615	3.6	
1965	78.2		15.9	20.2	21.3	50.6	186.2	4,906	5,092	3.7	
1966	100.1		17.6	29.0	27.3	49.7	223.7	5,619	5,843	3.8	
1967	114.2		15.1	31.3	33.7	49.8	244.0	6,131	6,375	3.8	
1968	126.9		15.4	36.6	44.3	50.5	273.8	6,852	7,126	3.8	
1969	172.0		16.8	45.4	56.0	53.8	344.0	7,888	8,232	4.2	
1970	196.6		15.5	49.9	63.1	53.1	378.2	8,578	8,956	4.2	
1971	237.4		12.7	52.0	72.5	49.2	423.8	9,538	9,962	4.3	
1972	291.8		14.2	57.7	88.3	44.8	496.9	10,826	11,323	4.4	
1973	364.9		15.1	62.8	115.0	47.7	605.5	12,521	13,126	4.6	
1974	428.7		12.9	64.1	142.7	52.3	700.8	13,881	14,582	4.8	
1975	490.2		13.2	69.2	163.4	42.5	778.5	15,319	16,098	4.8	
1976	601.1		14.1	74.8	188.0	37.3	915.4	17,765	18,680	4.9	
1977	744.3		13.8	84.4	225.2	35.5	1,103.2	20,056	21,159	5.2	
1978	954.4		14.0	93.3	267.3	37.1	1,366.2	23,060	24,426	5.6	
1979	1,138.2		14.7	96.0	299.4	37.7	1,585.9	26,013	27,599	5.7	
1980	2,097.2		14.8	100.0	324.9	62.6	2,599.5	28,402	31,001	8.4	
1981	2,239.4		14.1	111.9	349.6	61.8	2,776.7	36,403	39,180	7.1	
1982	2,382.1		14.3	123.7	363.3	56.4	2,939.8	40,979	43,919	6.7	
1983	2,876.1		15.1	138.9	378.6	53.8	3,462.6	43,507	46,970	7.4	
1984	3,197.0		7.2	150.4	393.8	45.6	3,794.0	47,362	51,156	7.4	
1985	3,487.4		8.5	163.4	414.7	44.9	4,118.8	50,696	54,815	7.5	
1986	4,004.4		10.7	164.2	389.6	41.6	4,610.5	52,857	57,468	8.0	
1987	4,749.6	14.1	26.8	164.1	360.1	35.1	5,349.9	53,169	58,519	9.1	
1988	5,799.8	65.3		194.2	310.1	29.7	6,399.0	56,201	62,600	10.2	
1989	6,901.1	112.9		208.0	243.1	27.0	7,492.0	58,532	66,024	11.3	
1990	8,042.3	166.9		201.4	196.1	23.9	8,630.7	58,161	66,792	12.9	
1991	9,219.1	440.7		309.0	200.0	15.2	\$22.7	10,206.7	58,351	68,558	14.9
1992	10,331.3	511.4		323.4	155.4	15.6	24.1	11,361.2	60,622	71,983	15.8
1993	11,504.5	591.7		366.1	135.1	11.8	23.4	12,632.5	62,657	75,290	16.8
1994	12,430.9	1,120.6		440.9	122.7	12.4	25.3	14,152.7	66,573	80,726	17.5
1995	14,159.8	1,756.0		514.2	119.3	6.3	47.9	16,603.4	68,872	85,475	19.4
1996	14,234.1	3,637.0		660.7	118.9	5.0	26.1	18,681.9	74,679	93,361	20.0
1997	15,250.4	4,112.0		850.9	109.8	3.5	28.3	20,354.9	80,438	100,793	20.2
1998	14,246.4	4,798.3		921.5	50.5	2.7	36.3	20,055.7	84,999	105,055	19.1
1999	14,504.6	4,369.4		1,201.2	56.8	1.6	30.8	20,164.4	88,082	108,246	18.6

See notes at the end of the tables.

**Table 2**  
**International Telephone Service Per-Minute Data 1/**  
**(Revenues, Payouts, Receipts and Minutes Amounts Shown in Millions)**

	U.S. Billed Amounts				Foreign Billed Amounts		Per-Minute Data				
	Number of Minutes	End-User Billed Revenues <u>4/</u>	Payouts to PTT	Retained Revenues	Number of Minutes <u>5/</u>	Receipts from PTT	End-User Billed Revenues <u>4/</u>	Payout to PTT	Retained Revenues	Receipts from PTT	Net Retained Revenues for all U.S. and Foreign Minutes
1964	20.2	\$62.9	\$30.3	\$32.6	12.0	\$19.6	\$3.11	\$1.50	\$1.62	\$1.63	\$1.62
1965	25.5	78.2	37.2	41.1	15.4	24.7	3.07	1.46	1.61	1.60	1.61
1966	32.3	100.1	47.6	52.5	18.9	30.1	3.10	1.47	1.63	1.59	1.61
1967	39.7	114.2	54.6	59.6	23.4	31.8	2.88	1.38	1.50	1.36	1.45
1968	46.4	126.9	61.5	65.4	28.2	40.0	2.73	1.33	1.41	1.42	1.41
1969	64.6	172.0	82.7	89.4	38.3	51.6	2.66	1.28	1.38	1.35	1.37
1970	81.1	196.6	98.9	97.7	51.0	59.8	2.43	1.22	1.21	1.17	1.19
1971	100.9	237.4	120.7	116.6	68.4	75.1	2.35	1.20	1.16	1.10	1.13
1972	126.5	291.8	148.2	143.6	91.7	98.6	2.31	1.17	1.14	1.08	1.11
1973	159.3	364.9	184.4	180.5	111.5	120.2	2.29	1.16	1.13	1.08	1.11
1974	190.7	428.7	216.6	212.1	142.0	152.2	2.25	1.14	1.11	1.07	1.09
1975	219.4	490.2	247.4	242.9	167.0	176.9	2.23	1.13	1.11	1.06	1.09
1976	272.7	601.1	303.0	298.1	197.2	207.2	2.20	1.11	1.09	1.05	1.08
1977	341.3	744.3	374.9	369.3	253.0	259.6	2.18	1.10	1.08	1.03	1.06
1978	455.6	954.4	496.2	458.2	346.0	314.8	2.09	1.09	1.01	0.91	0.96
1979	646.4	1,138.2	692.7	445.4	409.8	475.1	1.76	1.07	0.69	1.16	0.87
1980	1,569.2	2,097.2	1,063.1	1,034.1	1,162.4	715.9	1.34	0.68	0.66	0.62	0.64
1981	1,857.2	2,239.4	1,329.6	909.8	1,436.6	798.6	1.21	0.72	0.49	0.56	0.52
1982	2,186.6	2,382.1	1,673.6	708.5	1,612.7	961.4	1.09	0.77	0.32	0.60	0.44
1983	2,649.7	2,876.1	2,035.5	840.5	1,808.3	1,085.9	1.09	0.77	0.32	0.60	0.43
1984	3,037.0	3,197.0	2,268.8	928.2	1,970.6	1,065.7	1.05	0.75	0.31	0.54	0.40
1985	3,446.3	3,487.4	2,398.2	1,089.2	2,262.6	1,243.1	1.01	0.70	0.32	0.55	0.41
1986	4,126.1	4,004.4	2,864.6	1,139.9	2,511.0	1,395.9	0.97	0.69	0.28	0.56	0.38
1987	4,819.2	4,751.1	3,422.9	1,328.2	2,822.7	1,670.6	0.99	0.71	0.28	0.59	0.39
1988	5,679.4	5,806.3	4,039.1	1,767.2	3,228.2	1,906.3	1.02	0.71	0.31	0.59	0.41
1989	6,750.7	6,912.3	4,735.4	2,176.9	3,810.3	2,212.7	1.02	0.70	0.32	0.58	0.42
1990	8,029.7	8,059.0	5,297.4	2,761.6	4,340.9	2,426.3	1.00	0.66	0.34	0.56	0.42
1991	9,071.7	9,263.2	5,852.4	3,410.8	4,768.6	2,410.4	1.02	0.65	0.38	0.51	0.42
1992	10,293.8	10,382.5	6,007.7	4,374.8	5,369.7	2,481.2	1.01	0.58	0.42	0.46	0.44
1993	11,513.3	11,563.7	6,372.0	5,191.7	5,786.0	2,476.7	1.00	0.55	0.45	0.43	0.44
1994	13,615.6	12,542.9	7,009.7	5,533.2	6,384.9	2,501.8	0.92	0.51	0.41	0.39	0.40
1995	15,888.8	14,335.4	7,569.0	6,766.4	7,050.6	2,464.1	0.90	0.48	0.43	0.35	0.40
1996	19,325.1	14,597.8	8,252.3	6,345.5	8,293.2	2,450.9	0.76	0.43	0.33	0.30	0.32
1997	22,753.1	15,661.6	8,031.0	7,630.5	9,170.0	2,458.9	0.69	0.35	0.34	0.27	0.32
1998	24,249.9	14,726.3	7,021.7	7,704.5	10,198.5	2,158.2	0.61	0.29	0.32	0.21	0.29
1999	28,363.3	14,941.5	6,360.8	8,580.7	10,764.6	1,575.9	0.53	0.22	0.30	0.15	0.26

See notes at the end of the tables.

**Table 3**  
**Selected Traffic Statistics for International Telephone Service 1/ 9/**  
**(Revenues, Payouts, Receipts and Minutes Amounts Shown in Millions)**

International Telephone Service	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Annual Growth Rates 1993 to 1999 <u>5/</u>
U.S. Minutes												
US Originated and Received Collect or Toll Free <u>6/</u>			8,972	9,999	11,163	13,110	15,135	18,174	21,288	21,712	25,016	14.4 %
US Billed Country Direct and Country Beyond			100	294	350	500	728	1,053	933	1,736	1,935	32.4
Calls Reoriginated by U.S. Carriers						5	26	98	532	802	1,412	
Total U.S. Billed Minutes	6,751	8,030	9,072	10,294	11,513	13,616	15,889	19,325	22,753	24,250	28,363	16.3
Foreign Minutes <u>7/</u>	3,810	4,341	4,769	5,370	5,786	6,385	7,051	8,293	9,170	10,198	10,765	11.6
Transiting Minutes			274	399	505	582	520	562	823	1,599	1,384	21.7
Total Minutes	10,561	12,371	14,114	16,063	17,804	20,583	23,460	28,180	32,746	36,048	40,512	15.0
U.S. Messages	835	984	1,384	1,663	1,945	2,347	2,830	3,520	4,259	4,477	5,290	18.3
Foreign Messages	649	739	911	1,088	1,220	1,408	1,525	1,976	2,103	2,134	2,682	13.4
Total Messages	1,485	1,723	2,295	2,750	3,165	3,755	4,354	5,496	6,361	6,611	7,972	16.5
Average Minutes per Message												
U.S. Calls	7.2	7.3	6.6	6.2	5.9	5.8	5.6	5.5	5.3	5.4	5.4	-1.7
Foreign Calls	5.3	5.3	5.2	4.9	4.7	4.5	4.6	4.2	4.4	4.8	4.0	-1.6
All Telephone Calls	7.1	7.2	6.2	5.8	5.6	5.5	5.4	5.1	5.1	5.5	5.1	-1.3
Billed Revenues	\$6,901	\$8,042	\$9,219	\$10,331	\$11,505	\$12,431	\$14,160	\$14,234	\$15,250	\$14,246	\$14,505	3.8
Settlement Payments	\$4,735	\$5,297	\$5,852	\$6,008	\$6,372	\$7,010	\$7,569	\$8,252	\$8,031	\$7,022	\$6,361	0.2
Retained Billed Revenues	\$2,166	\$2,745	\$3,367	\$4,324	\$5,133	\$5,421	\$6,591	\$5,982	\$7,219	\$7,225	\$8,144	7.6
Settlement Receipts	\$2,213	\$2,426	\$2,410	\$2,481	\$2,477	\$2,502	\$2,464	\$2,451	\$2,459	\$2,158	\$1,576	-5.7
Transiting Traffic Receipts			\$282	\$370	\$452	\$496	\$565	\$369	\$408	\$1,094	\$369	2.3
Transiting Traffic Payments			\$157	\$200	\$261	\$279	\$398	\$226	\$265	\$715	\$163	0.2
Net Settlement Payments	(\$2,620)	(\$2,981)	(\$3,317)	(\$3,357)	(\$3,705)	(\$4,291)	(\$4,938)	(\$5,658)	(\$5,429)	(\$4,484)	(\$4,579)	3.0
Net Revenues <u>8/</u>	\$4,281	\$5,062	\$5,902	\$6,974	\$7,800	\$8,140	\$9,222	\$8,576	\$9,821	\$9,762	\$9,925	4.2
Per Minute of U.S. Traffic:												
U.S. Billings	\$1.02	\$1.00	\$1.02	\$1.00	\$1.00	\$0.91	\$0.89	\$0.74	\$0.67	\$0.59	\$0.51	-10.7
Settlement Payments	\$0.70	\$0.66	\$0.65	\$0.58	\$0.55	\$0.51	\$0.48	\$0.43	\$0.35	\$0.29	\$0.22	-13.8
Retained Revenues	\$0.32	\$0.34	\$0.37	\$0.42	\$0.45	\$0.40	\$0.41	\$0.31	\$0.32	\$0.30	\$0.29	-7.5
Per Minute of Foreign Traffic:												
Settlement Receipts	\$0.58	\$0.56	\$0.51	\$0.46	\$0.43	\$0.39	\$0.35	\$0.30	\$0.27	\$0.21	\$0.15	-15.5
Per Transiting Minute - Revenues			\$0.46	\$0.42	\$0.38	\$0.37	\$0.32	\$0.25	\$0.17	\$0.24	\$0.15	-14.3
Net Revenue per Minute	\$0.41	\$0.41	\$0.42	\$0.43	\$0.44	\$0.40	\$0.39	\$0.30	\$0.30	\$0.27	\$0.24	-9.4
Percent Billings for Settlements	68.6%	65.9%	63.5%	58.2%	55.4%	56.4%	53.5%	58.0%	52.7%	49.3%	43.9%	
Average Price for a U.S. Call	\$7.34	\$7.28	\$6.66	\$6.21	\$5.92	\$5.30	\$5.00	\$4.04	\$3.58	\$3.18	\$2.74	-12.3

See notes at the end of the tables.

**Table 4**  
**International Telephone Service Minutes of Traffic Originating**  
**in the United States Compared with Traffic**  
**Originating in Other Countries 1/ 10/**  
**(In Millions)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Annual Growth Rates 1992 to 1999 5/
Total United States	6,751	8,030	9,072	10,294	11,513	13,616	15,889	19,325	22,753	24,250	28,363	16.5 %
Total Other Countries	21,949	25,470	28,828	32,706	36,687	40,284	44,411	50,675	59,047	68,750	79,437	13.0
Total World	28,700	33,500	37,900	43,000	48,200	53,900	60,300	70,000	81,800	93,000	107,800	13.9
U.S. as a Percent of World	23.5%	24.0%	23.9%	23.9%	23.9%	25.3%	26.3%	27.6%	27.8%	26.1%	26.3%	
AT&T	3,718	4,126	6,596	7,039	7,201	8,040	8,831	9,546	10,331	10,452	10,900	7.7
MCI Worldcom	456	769	1,600	2,101	2,857	3,529	4,486	5,372	5,913	7,195	8,306	22.0
Sprint	258	338	728	946	1,181	1,490	1,772	2,745	2,794	2,916	3,640	22.6
BT			2,105	2,188	2,310	2,489	2,909	3,158	3,735	4,249	4,029	12.1
C&W Communications			493	661	820	1,018	1,107	1,411	2,065	2,646	3,117	25.4
C&W Hong Kong			913	1,137	1,377	1,578	1,692	1,739	1,718	1,682	1,668	6.3
China Telecom			440	635	900	1,170	1,390	1,433	1,632	1,712	1,950	16.9
Deutsche Telekom			3,605	4,087	4,680	5,147	5,244	5,100	4,813	4,711	3,860	1.7
France Telecom			2,295	2,449	2,576	2,603	2,805	3,116	3,545	3,911	4,390	8.0
Stentor			1,425	1,520	1,552	1,525	1,467	1,650	1,778	-	-	
Swisscom			1,429	1,551	1,572	1,649	1,778	1,936	2,164	2,258	2,259	7.1
Telecom Italia			1,220	1,473	1,610	1,708	1,908	2,184	2,352	2,339	2,391	8.9

See notes at the end of the tables.

**Table 5**  
**Cost of Selected Submarine Cable Systems**  
(Including Some Systems Removed from Service and Some Planned Systems)

<b>System <u>11/</u></b>	<b>Year</b>	<b>Technology</b>	<b>Estimated Cost When New (\$ Million)</b>	<b>Total 64 kbps Circuits as Planned <u>12/</u></b>	<b>Usable 64 kbps Circuits as Planned <u>12/</u></b>	<b>Annual Investment Cost per Usable Planned Circuit <u>13/</u></b>	<b>Investment Cost per Minute <u>14/</u></b>
<b>Trans-Atlantic Operational</b>							
TAT-1	1956	Coax Cable	\$50	45	40	\$213,996	\$2.443
TAT-2	1959	Coax Cable	43	49	44	167,308	1.910
TAT-3	1963	Coax Cable	51	88	79	111,027	1.267
TAT-4	1965	Coax Cable	50	69	62	140,238	1.601
TAT-5	1970	Coax Cable	70	720	648	18,773	0.214
TAT-6	1976	Coax Cable	197	4,000	3,200	10,638	0.121
TAT-7	1983	Coax Cable	180	4,246	3,821	8,139	0.093
TAT-8	1988	Fiber Optic	360	7,560	6,048	10,285	0.117
PTAT-1	1989	Fiber Optic	400	17,010	17,010	4,063	0.046
TAT-9	1992	Fiber Optic	406	15,120	15,120	4,640	0.053
TAT-10	1992	Fiber Optic	300	22,680	15,120	3,428	0.039
TAT-11	1993	Fiber Optic	280	22,680	15,120	3,200	0.037
TAT-12/13	1996	Fiber Optic	756	60,480	60,480	2,160	0.025
Gemini	1998	Fiber Optic	520	120,960	120,960	743	0.008
AC-1	1998	Fiber Optic	750	483,840	483,840	268	0.003
<b>Planned</b>							
TAT-14	2001	Fiber Optic	1,500	1,535,360	1,535,360	169	0.002
FLAG-Atlantic-1	2001	Fiber Optic	1,200	1,935,360	1,935,360	107	0.001
360Atlantic	2001	Fiber Optic	630	1,935,360	1,935,360	56	0.001
<b>Americas Operational</b>							
Americas 1 Pan American Cable System	1994	Fiber Optic	268	22,680	22,680	2,042	0.023
Americas II	1998	Fiber Optic	214	120,960	120,960	306	0.003
MAC	2000	Fiber Optic	310	604,800	604,800	89	0.001
PAC	2000	Fiber Optic	200	241,920	241,920	143	0.002
MAYA-1	2000	Fiber Optic	356	241,920	241,920	254	0.003
SAC	2000	Fiber Optic	150	90,720	90,720	286	0.003
	2000	Fiber Optic	700	483,840	483,840	250	0.003
<b>Planned</b>							
SAm-1	2001	Fiber Optic	900	483,840	483,840	321	0.004
<b>Trans-Pacific Operational</b>							
HAW-4/TPC-3	1989	Fiber Optic	601	7,560	7,560	13,737	0.157
TPC-4	1992	Fiber Optic	408	15,120	15,120	4,663	0.053
TPC-5	1996	Fiber Optic	1,348	120,960	120,960	1,926	0.022
PC-1	1999	Fiber Optic	1,200	967,680	967,680	214	0.002
China-U.S. CN	2000	Fiber Optic	1,100	967,680	967,680	196	0.002
<b>Planned</b>							
Japan-U.S. CN	2001	Fiber Optic	1,000	967,680	967,680	179	0.002
Australia-Japan Cable (Guam)	2001	Fiber Optic	350	967,680	967,680	62	0.001
360Pacific Cable Network	2002	Fiber Optic	1,100	967,680	967,680	196	0.002

See notes at the end of the tables.

**Table 6**  
**U.S. Billed Minutes of International Telephone Service 1/**  
**for Selected International Points**  
**(In Millions)**

U.S. Billed Minutes	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Annual Growth Rate 1993 to 1999 <u>5/</u>
Australia	82.2	93.6	99.5	113.6	126.5	157.0	201.3	282.6	389.2	439.9	397.0	24.6 %
Brazil	90.6	108.8	122.5	144.7	171.4	221.9	283.0	374.7	495.3	568.1	586.4	24.5
Canada <u>9/</u>	1,490.9	1,819.4	1,951.6	2,227.1	2,493.8	2,787.3	3,049.3	3,464.9	3,922.1	3,860.6	4,292.2	9.5
China	25.8	32.8	47.4	68.6	110.3	169.5	231.0	299.3	380.2	418.3	396.4	24.5
Colombia	121.1	132.5	150.4	172.5	200.2	231.1	256.5	288.0	263.0	217.8	320.9	4.8
Dominican Republic	146.5	165.0	219.3	251.1	255.2	314.2	410.5	416.4	379.1	438.4	613.7	12.2
Egypt	27.7	30.6	38.1	43.9	49.0	56.9	68.6	90.0	109.9	111.3	169.1	21.8
El Salvador	68.6	84.1	89.1	99.9	107.0	120.8	135.7	141.8	154.9	197.9	235.5	13.3
France	172.1	201.6	210.5	239.9	263.7	304.9	362.8	442.6	511.0	560.3	577.1	15.0
Germany <u>15/</u>	416.8	494.3	561.2	563.1	572.6	604.1	662.3	782.4	1,008.3	1,153.4	1,465.9	17.6
Greece	52.4	57.9	61.1	70.0	75.6	82.1	86.5	91.3	97.5	115.3	183.8	13.2
Guatemala	57.3	70.5	80.6	88.0	93.8	105.4	115.1	128.0	127.3	144.7	189.2	10.7
Haiti	39.9	47.7	50.6	48.6	52.9	62.8	73.6	79.2	93.6	99.6	135.9	15.3
Hong Kong	76.4	85.4	95.6	114.3	143.2	213.9	315.8	539.7	677.3	565.3	193.0	13.7
India	45.4	58.8	71.4	97.9	134.2	191.6	285.7	428.0	583.3	749.7	960.1	39.6
Israel	91.2	107.0	129.9	137.7	162.7	195.7	214.3	239.8	214.2	220.4	363.8	9.9
Italy	145.9	169.2	178.4	207.3	229.7	250.9	279.4	336.3	476.6	515.1	701.1	20.9
Jamaica	78.7	96.8	104.0	124.4	145.0	167.5	186.7	220.9	252.9	289.1	364.4	16.0
Japan	272.9	319.8	339.5	366.6	400.5	469.2	576.3	703.4	857.4	799.4	819.9	13.8
Korea, Republic of	141.7	164.8	185.3	207.8	238.8	283.4	319.3	382.5	428.4	381.3	322.9	6.6
Mexico <u>9/</u>	796.9	934.4	1,038.3	1,277.3	1,398.9	1,656.2	2,012.2	2,390.4	2,766.5	3,013.6	4,053.4	18.3
Morocco	6.7	7.2	7.4	8.2	9.2	11.7	13.6	14.1	14.4	16.3	64.8	26.5
Netherlands	62.1	71.0	78.1	92.7	107.3	130.4	163.6	207.2	225.3	273.0	308.2	19.4
Nigeria	11.5	16.2	27.9	34.3	38.5	39.5	52.1	75.1	105.3	160.7	133.4	29.5
Pakistan	35.6	42.9	55.3	64.3	68.7	84.1	107.2	133.9	164.7	204.4	304.5	26.9
Peru	54.3	64.4	67.5	80.1	89.7	105.8	121.8	145.0	165.2	180.9	241.3	16.8
Philippines	130.3	165.0	190.0	200.3	224.7	267.3	295.7	356.3	452.3	557.1	757.6	21.9
Poland	53.7	64.3	69.2	73.9	81.6	110.3	133.4	161.4	170.8	189.4	273.1	19.4
Russia <u>16/</u>	7.8	13.4	21.5	31.0	45.6	63.7	78.4	100.9	122.5	156.3	193.7	26.5
Saudi Arabia	32.7	68.2	187.5	61.5	67.6	77.5	88.2	101.3	110.1	108.1	111.1	26.5
Sierra Leone	1.1	1.6	2.6	4.4	4.5	4.8	5.8	8.9	12.1	39.7	10.0	30.1
Singapore	27.8	34.0	39.0	47.3	56.8	73.0	100.1	148.7	202.7	168.4	120.3	18.0
South Africa	19.4	22.4	24.3	29.2	36.3	53.7	73.8	97.5	111.6	128.0	163.9	26.9
Spain	57.3	69.0	84.8	105.6	109.5	119.4	130.3	147.9	191.0	245.3	329.1	20.1
Switzerland	69.9	77.6	83.6	93.5	104.4	115.4	135.6	181.1	246.3	197.6	240.3	16.1
Taiwan	100.5	120.2	128.3	162.9	184.7	226.0	271.6	321.7	379.4	325.3	335.6	10.7
Thailand	31.4	38.4	44.0	53.2	62.9	78.4	92.3	114.6	117.2	121.2	117.9	11.3
Turkey	23.2	28.3	34.2	37.6	40.1	45.6	51.3	59.3	62.5	106.9	241.2	29.7
United Kingdom	544.0	627.4	663.3	733.8	800.2	906.4	1,025.1	1,226.4	1,553.8	1,561.2	1,668.9	14.2
Viet Nam	0.0	0.0	0.0	7.1	20.6	45.2	74.3	114.2	165.2	192.0	251.8	49.2
Total for Countries Shown Above	5,710.3	6,806.3	7,632.6	8,585.1	9,577.8	11,204.9	13,139.9	15,837.6	18,760.7	19,791.3	23,208.3	16.0
Total for Other Countries	1,040.3	1,342.1	1,439.1	1,708.7	1,935.5	2,410.8	2,748.9	3,487.6	3,992.4	4,458.6	5,154.9	17.6
Total for All Countries	6,750.7	8,029.7	9,071.7	10,293.8	11,513.3	13,615.6	15,888.8	19,325.1	22,753.1	24,249.9	28,363.3	16.3
Canada, Mexico, Germany, and UK as Percent of Total	48.1%	48.3%	46.5%	46.6%	45.7%	43.7%	42.5%	40.7%	40.7%	39.5%	40.5%	
Other Countries Shown Above as Percent of Total	36.5%	36.5%	37.7%	36.8%	37.5%	38.6%	40.2%	41.3%	41.8%	42.1%	41.3%	
Countries not Shown Above as Percent of Total	15.4%	15.2%	15.9%	16.6%	16.8%	17.7%	17.3%	18.0%	17.5%	18.4%	18.2%	

See notes at the end of the tables.



**Table 7**  
**Foreign Billed Minutes of International Telephone Service 1/**  
**for Selected International Points**  
**(In Millions)**

Foreign Minutes	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Annual Growth Rate 1993 to 1999 <u>5/</u>
Australia	78.3	87.2	93.4	104.1	118.6	140.1	150.1	155.8	131.6	236.6	446.0	19.1 %
Brazil	51.9	56.1	60.5	49.3	46.9	62.1	101.7	123.5	159.2	180.2	185.9	27.1
Canada <u>9/</u>	1,172.1	1,340.9	1,421.0	1,512.2	1,605.6	1,800.8	2,067.3	2,845.9	3,141.9	3,359.0	3,922.1	16.8
China	10.5	12.9	17.2	25.4	41.1	48.5	52.4	58.3	61.8	79.4	46.9	5.7
Colombia	39.4	41.3	46.4	50.5	51.8	58.9	59.7	61.4	67.6	51.2	57.2	0.5
Dominican Republic	37.7	39.0	46.8	50.5	62.3	69.2	97.4	125.1	107.8	113.2	122.0	11.7
Egypt	5.1	6.0	6.7	6.8	8.0	8.6	9.2	9.6	10.7	11.7	11.2	6.5
El Salvador	9.9	8.1	7.8	8.5	7.8	8.0	8.6	9.9	12.7	16.0	24.8	20.6
France	122.2	135.5	147.0	156.6	161.7	170.3	181.2	203.6	216.7	270.8	226.2	7.8
Germany <u>15/</u>	191.9	197.8	211.9	235.9	262.6	277.1	290.6	313.0	325.2	365.9	333.0	5.1
Greece	19.4	17.0	19.8	25.7	25.4	34.2	30.6	33.0	35.1	42.8	38.6	6.8
Guatemala	12.6	12.0	13.1	18.5	14.0	12.8	14.3	11.8	15.4	17.9	18.7	5.9
Haiti	6.6	7.1	6.3	6.4	5.5	6.9	10.4	7.1	5.0	7.1	6.8	-0.1
Hong Kong	60.5	67.2	74.7	82.8	89.9	101.0	102.4	96.3	78.4	50.5	103.7	-4.3
India	32.2	37.5	47.9	60.1	57.3	52.0	51.8	50.1	49.7	58.5	44.2	-2.1
Israel	37.0	40.6	46.4	48.1	53.2	59.3	70.4	78.9	121.6	171.4	237.4	29.1
Italy	70.7	76.9	83.3	118.0	99.1	101.4	104.0	114.4	117.8	134.0	201.1	10.5
Jamaica	25.9	30.1	33.5	42.4	38.4	36.1	44.3	50.1	49.9	51.9	54.2	6.9
Japan	172.0	226.6	261.7	281.8	291.5	308.8	322.5	346.5	342.9	336.4	309.1	1.5
Korea, Republic of	42.0	53.3	78.1	96.3	102.2	125.2	140.7	159.1	199.9	219.7	203.7	13.5
Mexico <u>9/</u>	389.1	457.2	468.3	608.7	676.3	748.8	835.7	948.1	942.2	1,086.3	1,124.1	8.9
Morocco	3.0	3.3	3.0	3.1	4.2	4.5	4.8	4.8	5.8	6.4	6.0	7.1
Netherlands	48.0	54.0	60.2	66.7	77.0	82.5	82.7	85.6	98.7	122.2	136.8	10.1
Nigeria	7.3	13.1	11.4	11.3	11.3	18.5	18.9	9.2	8.7	17.4	9.2	-5.3
Pakistan	3.2	4.2	5.5	7.2	7.6	8.4	9.2	10.0	10.5	15.6	8.8	6.7
Peru	12.5	11.1	11.2	12.5	14.7	20.2	24.0	25.5	24.5	31.4	27.5	10.4
Philippines	12.9	17.8	17.9	23.2	37.0	42.9	42.3	50.2	33.4	50.8	38.9	0.9
Poland	4.9	1.7	7.3	25.0	28.7	34.0	31.5	27.1	27.3	27.8	24.9	-3.4
Russia <u>16/</u>	5.4	8.8	11.2	8.0	31.6	30.2	26.6	31.0	29.8	22.0	17.4	-7.9
Saudi Arabia	21.8	28.9	43.0	30.0	29.8	28.2	24.1	27.2	31.8	36.9	32.0	3.7
Sierra Leone	0.2	0.2	0.1	0.1	0.4	0.5	0.5	1.0	1.2	1.2	0.6	15.9
Singapore	23.6	27.5	31.0	34.2	37.7	43.5	51.1	53.5	61.4	65.8	26.4	-0.2
South Africa	13.4	15.0	16.4	18.8	20.8	24.3	26.7	29.3	31.1	36.5	38.9	10.7
Spain	31.3	35.1	46.9	53.1	45.4	51.8	46.1	61.5	85.3	76.0	85.1	12.4
Switzerland	51.0	59.1	62.8	66.1	66.1	73.0	77.3	91.9	98.0	102.1	81.6	5.7
Taiwan	48.3	61.0	73.0	82.4	88.7	93.9	108.5	112.2	139.1	152.9	121.8	8.1
Thailand	8.1	10.9	13.4	15.8	18.9	22.6	26.3	29.7	26.3	32.2	23.5	5.0
Turkey	8.0	10.2	12.4	16.0	16.8	17.8	21.1	25.9	25.0	28.4	27.0	9.5
United Kingdom	440.4	468.9	475.1	501.6	546.7	590.0	690.7	737.7	945.5	1,175.2	1,119.1	14.7
Viet Nam	0.0	0.0	0.0	0.4	1.0	2.1	3.1	5.2	4.1	4.5	7.4	32.4
Total for Countries Shown Above	3,330.3	3,781.1	4,093.8	4,564.3	4,903.4	5,418.6	6,060.8	7,219.9	7,880.8	8,865.7	9,549.9	12.3
Total for Other Countries	480.0	559.9	674.8	805.5	882.7	966.3	989.7	1,073.2	1,289.3	1,332.8	1,214.7	6.9
Total for All Countries	3,810.3	4,340.9	4,768.6	5,369.7	5,786.0	6,384.9	7,050.6	8,293.2	9,170.0	10,198.5	10,764.6	11.6
Canada, Mexico, Germany, and UK as Percent of Total	57.6%	56.8%	54.0%	53.2%	53.4%	53.5%	55.1%	58.4%	58.4%	58.7%	60.4%	
Other Countries Shown Above as Percent of Total	29.8%	30.3%	31.8%	31.8%	31.3%	31.4%	30.9%	28.6%	27.5%	28.2%	28.3%	
Countries not Shown Above as Percent of Total	12.6%	12.9%	14.2%	15.0%	15.3%	15.1%	14.0%	12.9%	14.1%	13.1%	11.3%	

See notes at the end of the tables.

**Table 8**  
**U.S. Billed Revenues for International Telephone Service 1/**  
**for Selected International Points**  
**(In Millions)**

U.S. Billed Revenues	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Australia	\$117.5	\$128.1	\$134.8	\$150.1	\$158.0	\$170.6	\$202.5	\$192.2	\$118.4	\$186.3	\$220.2
Brazil	107.6	125.9	141.9	163.1	181.5	215.0	271.3	290.7	362.2	382.0	336.1
Canada <u>9/</u>	766.7	785.9	800.7	872.5	1,027.2	991.9	1,039.8	1,020.1	1,203.4	1,195.0	1,204.1
China	43.6	58.7	83.5	138.5	198.5	261.2	338.7	383.9	434.7	375.8	289.5
Colombia	136.5	152.5	175.9	198.6	215.1	232.3	257.5	242.6	234.8	168.2	208.6
Dominican Republic	150.0	176.1	217.7	242.8	249.5	262.3	342.9	292.8	216.5	197.8	184.7
Egypt	35.6	40.2	51.1	58.4	66.2	72.2	85.9	93.9	113.5	108.0	137.0
El Salvador	73.6	95.0	102.5	119.2	132.4	144.7	166.9	165.7	167.6	161.0	162.9
France	185.2	217.1	222.7	250.4	261.9	277.9	294.6	274.4	323.2	280.8	204.7
Germany <u>15/</u>	440.2	532.9	626.8	610.7	600.9	575.5	581.6	510.1	505.8	458.4	544.0
Greece	56.9	65.0	71.7	82.0	86.1	87.9	95.0	90.4	94.3	91.9	112.9
Guatemala	60.4	75.8	89.5	104.0	111.7	121.7	134.8	137.3	127.4	120.8	125.9
Haiti	42.3	54.0	58.1	58.7	64.5	77.1	86.5	78.5	75.4	71.3	77.9
Hong Kong	106.7	122.3	141.1	166.6	195.7	230.4	283.2	319.8	318.1	199.7	104.8
India	107.9	126.6	153.9	208.0	252.8	298.5	395.3	433.9	561.2	610.5	634.5
Israel	124.0	140.9	175.3	184.2	203.3	215.6	248.6	235.5	215.3	174.8	171.8
Italy	156.5	178.0	193.3	223.3	241.2	255.8	278.4	265.8	352.0	358.5	410.4
Jamaica	78.7	104.6	110.1	132.4	152.6	176.4	192.9	201.3	202.1	213.2	233.0
Japan	379.5	427.8	459.6	484.3	494.2	490.9	573.8	537.8	529.6	371.8	368.3
Korea, Republic of	214.2	240.2	276.2	304.2	325.6	325.6	347.3	355.2	379.2	307.9	226.1
Mexico <u>9/</u>	864.5	950.3	1,024.2	1,217.1	1,400.0	1,547.8	1,700.8	1,775.7	1,850.0	1,794.2	2,027.7
Morocco	8.0	9.7	8.9	11.2	12.2	14.4	18.2	16.8	18.3	13.7	47.1
Netherlands	71.1	76.2	82.5	95.2	109.8	112.3	128.0	118.3	112.6	108.5	134.9
Nigeria	11.1	17.6	29.4	39.1	44.9	42.9	56.5	65.0	83.6	109.7	88.8
Pakistan	63.8	75.7	99.7	113.8	116.8	130.9	164.1	166.2	184.4	202.9	225.6
Peru	60.4	72.3	77.4	91.3	95.5	109.4	125.7	126.1	144.2	144.4	161.9
Philippines	192.7	316.4	289.6	304.6	315.8	345.8	382.3	383.9	435.5	424.0	470.3
Poland	54.7	68.7	73.7	81.1	86.1	98.9	113.8	117.8	129.2	107.8	110.9
Russia <u>16/</u>	16.4	27.2	42.2	61.7	88.6	115.9	123.3	129.0	142.9	107.8	120.0
Saudi Arabia	39.9	91.4	257.8	82.2	95.3	96.9	106.1	106.4	118.8	108.3	97.5
Sierra Leone	2.7	3.3	5.0	8.4	8.7	8.6	10.4	10.8	13.0	18.8	7.5
Singapore	40.1	51.2	58.8	69.9	78.4	87.0	107.6	126.3	112.8	93.9	69.7
South Africa	20.7	25.3	26.9	38.4	38.8	50.6	69.8	66.8	87.6	87.1	92.8
Spain	60.6	73.9	93.6	117.4	120.9	127.9	140.4	138.5	150.6	176.6	207.2
Switzerland	42.5	87.1	91.9	100.8	107.9	116.1	119.6	111.9	112.5	96.2	102.7
Taiwan	137.3	165.9	184.2	230.7	239.3	237.5	263.6	238.2	260.4	205.8	181.2
Thailand	47.3	59.4	70.4	85.9	96.0	99.8	117.1	117.4	127.2	113.9	101.3
Turkey	25.6	33.2	41.3	46.4	53.0	56.9	61.5	61.6	66.3	97.8	132.3
United Kingdom	512.9	581.5	616.5	666.9	699.5	719.4	750.7	699.2	761.4	659.4	691.8
Viet Nam	0.0	0.0	0.0	16.2	46.7	82.8	127.1	153.8	209.7	216.8	213.6
Total for Countries Shown Above	5,655.9	6,633.8	7,460.3	8,230.4	9,073.3	9,685.2	10,904.3	10,851.9	11,655.6	10,921.1	11,242.0
Total for Other Countries	1,245.2	1,408.5	1,758.8	2,100.9	2,431.2	2,745.6	3,144.2	3,406.0	3,594.8	3,325.3	3,262.6
Total for All Countries	6,901.1	8,042.3	9,219.1	10,331.3	11,504.5	12,430.9	14,159.8	14,234.1	15,250.4	14,246.4	14,504.6
Canada, Mexico, Germany, and UK as Percent of Total	37.7%	35.4%	33.3%	32.6%	32.4%	30.8%	28.8%	28.1%	28.3%	28.8%	30.8%
Other Countries Shown Above as Percent of Total	44.2%	47.0%	47.6%	47.1%	46.5%	47.1%	48.2%	48.1%	48.1%	47.8%	46.7%
Countries not Shown Above as Percent of Total	18.0%	17.5%	19.1%	20.3%	21.1%	22.1%	23.0%	23.8%	23.6%	23.3%	22.5%

See notes at the end of the tables.

**Table 9**  
**U.S. Billed Revenues per Minute for International Telephone Service**  
**for Selected International Points**

Billed Revenues per Minute	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Australia	\$1.43	\$1.37	\$1.35	\$1.32	\$1.25	\$1.09	\$1.01	\$0.68	\$0.30	\$0.42	\$0.55
Brazil	1.19	1.16	1.16	1.13	1.06	0.97	0.96	0.78	0.73	0.67	0.57
Canada <u>9/</u>	0.53	0.43	0.41	0.39	0.41	0.36	0.34	0.29	0.31	0.31	0.28
China	1.69	1.79	1.76	2.02	1.80	1.54	1.47	1.28	1.14	0.90	0.73
Colombia	1.13	1.15	1.17	1.15	1.07	1.01	1.00	0.84	0.89	0.77	0.65
Dominican Republic	1.02	1.07	0.99	0.97	0.98	0.83	0.84	0.70	0.57	0.45	0.30
Egypt	1.28	1.31	1.34	1.33	1.35	1.27	1.25	1.04	1.03	0.97	0.81
El Salvador	1.07	1.13	1.15	1.19	1.24	1.20	1.23	1.17	1.08	0.81	0.69
France	1.08	1.08	1.06	1.04	0.99	0.91	0.81	0.62	0.63	0.50	0.35
Germany <u>15/</u>	1.06	1.08	1.12	1.08	1.05	0.95	0.88	0.65	0.50	0.40	0.37
Greece	1.09	1.12	1.17	1.17	1.14	1.07	1.10	0.99	0.97	0.80	0.61
Guatemala	1.05	1.08	1.11	1.18	1.19	1.15	1.17	1.07	1.00	0.83	0.67
Haiti	1.06	1.13	1.15	1.21	1.22	1.23	1.18	0.99	0.81	0.72	0.57
Hong Kong	1.40	1.43	1.48	1.46	1.37	1.08	0.90	0.59	0.47	0.35	0.54
India	2.37	2.15	2.16	2.13	1.88	1.56	1.38	1.01	0.96	0.81	0.66
Israel	1.36	1.32	1.35	1.34	1.25	1.10	1.16	0.98	1.01	0.79	0.47
Italy	1.07	1.05	1.08	1.08	1.05	1.02	1.00	0.79	0.74	0.70	0.59
Jamaica	1.00	1.08	1.06	1.06	1.05	1.05	1.03	0.91	0.80	0.74	0.64
Japan	1.39	1.34	1.35	1.32	1.23	1.05	1.00	0.76	0.62	0.47	0.45
Korea, Republic of	1.51	1.46	1.49	1.46	1.36	1.15	1.09	0.93	0.89	0.81	0.70
Mexico <u>9/</u>	1.08	1.02	0.99	0.95	1.00	0.93	0.85	0.74	0.67	0.60	0.50
Morocco	1.19	1.35	1.20	1.36	1.33	1.23	1.35	1.19	1.27	0.84	0.73
Netherlands	1.14	1.07	1.06	1.03	1.02	0.86	0.78	0.57	0.50	0.40	0.44
Nigeria	0.96	1.09	1.06	1.14	1.17	1.09	1.08	0.86	0.79	0.68	0.67
Pakistan	1.79	1.76	1.80	1.77	1.70	1.56	1.53	1.24	1.12	0.99	0.74
Peru	1.11	1.12	1.15	1.14	1.07	1.03	1.03	0.87	0.87	0.80	0.67
Philippines	1.48	1.92	1.52	1.52	1.41	1.29	1.29	1.08	0.96	0.76	0.62
Poland	1.02	1.07	1.07	1.10	1.06	0.90	0.85	0.73	0.76	0.57	0.41
Russia <u>16/</u>	2.11	2.03	1.97	1.99	1.94	1.82	1.57	1.28	1.17	0.69	0.62
Saudi Arabia	1.22	1.34	1.37	1.34	1.41	1.25	1.20	1.05	1.08	1.00	0.88
Sierra Leone	2.49	2.11	1.93	1.93	1.94	1.78	1.80	1.22	1.07	0.47	0.75
Singapore	1.44	1.51	1.51	1.48	1.38	1.19	1.08	0.85	0.56	0.56	0.58
South Africa	1.07	1.13	1.11	1.32	1.07	0.94	0.95	0.69	0.78	0.68	0.57
Spain	1.06	1.07	1.10	1.11	1.10	1.07	1.08	0.94	0.79	0.72	0.63
Switzerland	0.61	1.12	1.10	1.08	1.03	1.01	0.88	0.62	0.46	0.49	0.43
Taiwan	1.37	1.38	1.44	1.42	1.30	1.05	0.97	0.74	0.69	0.63	0.54
Thailand	1.51	1.55	1.60	1.61	1.53	1.27	1.27	1.02	1.09	0.94	0.86
Turkey	1.10	1.17	1.21	1.23	1.32	1.25	1.20	1.04	1.06	0.91	0.55
United Kingdom	0.94	0.93	0.93	0.91	0.87	0.79	0.73	0.57	0.49	0.42	0.41
Viet Nam				2.29	2.27	1.83	1.71	1.35	1.27	1.13	0.85
Average for Countries Shown Above	0.99	0.97	0.98	0.96	0.95	0.86	0.83	0.69	0.62	0.55	0.48
Average for Other Countries	1.20	1.05	1.22	1.23	1.26	1.14	1.14	0.98	0.90	0.75	0.63
Average for All Countries	1.02	1.00	1.02	1.00	1.00	0.91	0.89	0.74	0.67	0.59	0.51
Average for Canada, Mexico, Germany, and UK	0.80	0.74	0.73	0.70	0.71	0.64	0.60	0.51	0.47	0.43	0.39
Average for Other Countries Shown Above	1.25	1.29	1.28	1.29	1.24	1.11	1.07	0.86	0.77	0.67	0.58

See notes at the end of the tables.

**Table 10**  
**Net Settlement Payouts for International Telephone Service 1/**  
**for Selected International Points**  
**(In Millions)**

Net Settlement Payouts	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Australia	\$0.7	\$0.9	(\$1.5)	(\$0.8)	(\$6.1)	(\$19.0)	\$8.7	\$21.9	\$37.2	\$26.5	\$55.6
Brazil	43.6	51.4	50.1	71.0	90.7	104.2	102.7	132.9	153.7	129.8	87.1
Canada <u>9/</u>	4.7	36.2	113.0	121.1	130.2	136.7	125.4	99.7	73.9	77.4	47.8
China	26.3	30.9	45.7	62.9	77.7	152.1	231.0	263.2	233.9	140.6	122.6
Colombia	70.9	77.6	88.3	96.2	111.7	122.9	131.9	139.2	110.5	56.2	68.9
Dominican Republic	75.3	80.8	115.0	130.0	120.2	126.5	125.4	111.4	84.7	93.5	88.9
Egypt	21.4	22.7	27.7	33.4	33.3	37.0	41.7	55.8	64.7	55.1	78.3
El Salvador	42.6	52.8	60.3	64.0	65.0	69.6	77.1	75.0	67.6	70.9	60.0
France	32.9	42.8	38.9	38.9	40.7	41.5	44.2	45.3	39.3	22.7	18.2
Germany <u>15/</u>	167.2	222.5	257.6	188.1	129.4	79.4	64.2	53.0	66.4	51.9	33.2
Greece	30.2	35.8	43.3	39.6	38.7	36.0	33.9	26.6	25.4	20.6	25.1
Guatemala	32.3	40.2	47.9	47.7	52.1	56.7	58.7	64.0	53.2	41.0	46.6
Haiti	23.1	28.2	30.5	28.1	30.9	34.6	37.1	42.7	52.5	54.1	61.8
Hong Kong	14.1	15.7	19.6	24.9	33.9	56.7	106.3	207.8	237.6	158.0	13.4
India	13.8	20.0	27.6	32.0	58.2	109.4	202.9	298.1	409.7	417.6	523.1
Israel	57.5	67.9	93.2	93.5	105.0	128.5	119.1	103.4	41.5	12.6	16.7
Italy	69.5	77.7	84.3	60.2	85.2	72.3	65.9	51.8	63.1	54.3	66.4
Jamaica	32.6	47.5	56.3	64.7	78.4	93.1	99.4	115.5	132.3	154.9	154.5
Japan	78.5	72.5	45.5	39.0	52.6	76.7	119.3	169.0	210.7	65.9	61.1
Korea, Republic of	111.7	110.6	99.9	92.8	103.2	111.0	118.7	122.1	101.5	18.4	32.3
Mexico <u>9/</u>	533.9	573.5	613.2	677.7	720.0	818.9	871.7	875.0	703.3	648.9	652.2
Morocco	5.6	6.0	7.8	7.9	7.5	9.8	11.0	5.5	3.4	1.4	17.1
Netherlands	7.0	10.6	10.2	10.2	8.0	10.8	22.3	22.8	16.5	11.3	(0.1)
Nigeria	3.5	3.1	10.8	17.0	18.8	9.5	8.5	41.7	68.5	100.3	70.9
Pakistan	40.1	43.0	58.4	63.8	69.8	88.1	107.3	127.6	120.3	114.6	152.1
Peru	40.0	51.1	56.2	54.3	53.4	58.7	62.1	72.3	74.6	64.0	62.1
Philippines	114.8	140.5	161.9	155.7	144.0	150.7	154.2	162.1	164.7	150.5	187.1
Poland	36.2	46.4	44.8	32.4	31.8	42.1	52.3	57.9	43.6	36.9	48.1
Russia <u>16/</u>	3.5	6.5	15.2	29.7	20.8	39.0	60.6	67.1	44.4	35.8	55.8
Saudi Arabia	11.2	39.0	114.3	30.6	37.7	50.2	66.9	77.6	71.2	53.5	46.6
Sierra Leone	1.3	1.2	1.8	3.3	3.7	3.6	3.6	4.8	6.5	10.0	3.3
Singapore	2.8	2.6	3.1	4.8	7.8	13.1	22.4	42.6	56.6	26.3	11.6
South Africa	6.2	6.8	8.0	9.2	13.0	18.1	27.0	35.6	37.0	34.7	37.7
Spain	23.0	30.3	41.1	49.0	54.9	55.7	53.0	36.2	21.2	26.1	25.6
Switzerland	10.5	8.2	13.8	13.4	15.6	17.9	19.3	22.7	23.5	14.0	18.0
Taiwan	45.0	48.1	36.1	43.7	48.9	79.1	95.0	118.4	133.9	42.3	27.8
Thailand	30.2	31.4	32.0	32.8	36.2	44.8	50.7	64.1	57.3	34.4	27.5
Turkey	14.3	15.3	21.5	20.4	21.3	26.0	24.0	18.9	16.6	28.4	69.4
United Kingdom	46.2	74.8	88.3	72.6	67.3	77.1	55.3	41.1	23.4	(15.9)	25.7
Viet Nam	0.0	0.0	0.0	8.0	21.5	40.4	62.3	94.1	139.8	151.0	179.2
Total for Countries Shown Above	1,924.2	2,273.0	2,681.9	2,663.9	2,832.9	3,279.5	3,743.2	4,186.2	4,085.2	3,290.7	3,379.4
Total for Other Countries	473.9	489.2	634.8	709.2	872.0	1,011.3	1,194.7	1,472.3	1,343.9	1,193.4	1,199.9
Total for All Countries	2,398.1	2,762.3	3,316.7	3,373.1	3,705.0	4,290.9	4,937.8	5,658.4	5,429.2	4,484.1	4,579.3
Canada, Mexico, Germany, and UK as Percent of Total	31.4%	32.8%	32.3%	31.4%	28.3%	25.9%	22.6%	18.9%	16.0%	17.0%	16.6%
Other Countries Shown Above as Percent of Total	48.9%	49.5%	48.5%	47.6%	48.2%	50.5%	53.2%	55.1%	59.3%	56.4%	57.2%
Countries not Shown Above as Percent of Total	19.8%	17.7%	19.1%	21.0%	23.5%	23.6%	24.2%	26.0%	24.8%	26.6%	26.2%

See notes at the end of the tables.

**Table 11**  
**Submarine and Terrestrial Circuits in Service 17/**  
**for Selected International Points**  
**(In Millions)**

<b>Cable &amp; Terrestrial Circuits</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Australia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2,874	4,416	8,201	8,819	11,801
Brazil	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,264	2,119	3,229	4,423	5,618
Canada	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	51,223	65,440	124,489	108,235	199,106
China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	409	744	1,013	1,469	2,045
Colombia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	914	1,166	1,190	1,371	1,626
Dominican Republic	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,477	1,464	1,512	2,128	2,217
Egypt	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	30	63	115	257	288
El Salvador	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	120	0	114	185	273
France	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2,622	5,351	6,312	6,703	15,724
Germany	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3,532	8,449	12,909	12,735	30,674
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	142	278	349	174	791
Guatemala	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0	34	145	134
Haiti	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	90	60	60	61	62
Hong Kong	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,406	2,581	4,041	5,748	9,129
India	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	608	1,041	1,453	1,008	2,622
Israel	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	528	863	1,291	1,923	3,500
Italy	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,534	2,254	2,334	2,840	3,155
Jamaica	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	273	263	228	445	423
Japan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	6,435	12,786	16,303	20,047	44,310
Korea, Republic of	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,105	2,379	5,548	5,919	9,542
Mexico	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	24,860	41,059	60,083	69,250	126,563
Morocco	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	61	62	62	64	59
Netherlands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,808	2,985	3,230	8,182	22,527
Nigeria	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	30	0	0	0
Pakistan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	32	0	1	5
Peru	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0	0	0	313
Philippines	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,804	2,265	3,616	4,546	4,981
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	347	580	659	928	960
Russia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	677	659	1,267	1,681	2,610
Saudi Arabia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	90	150	179	149	194
Sierra Leone	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0	0	0	0
Singapore	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	597	1,449	2,048	2,584	5,374
South Africa	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	174	357	523	577	515
Spain	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,136	1,353	2,685	2,978	2,485
Switzerland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,156	1,553	2,347	3,825	8,561
Taiwan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,058	1,825	2,501	3,204	3,402
Thailand	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	140	256	599	879	1,149
Turkey	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	149	238	343	194	376
United Kingdom	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	14,952	32,034	41,537	104,039	274,399
Viet Nam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1	210	508	534	582
Total for Countries Shown Above	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	125,596	198,814	312,912	388,250	798,095
Total for Other Countries	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	12,917	18,465	27,800	39,186	43,703
Total for All Countries	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	138,513	217,279	340,712	427,436	841,798
Canada, Mexico, Germany, and UK as Percent of Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	68.3%	67.6%	70.2%	68.8%	74.9%
Other Countries Shown Above as Percent of Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	22.4%	23.9%	21.7%	22.0%	19.9%
Countries not Shown Above as Percent of Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	9.3%	8.5%	8.2%	9.2%	5.2%

See notes at the end of the tables.

**Table 12**  
**Satellite Circuits in Service 17/**  
**for Selected International Points**  
**(In Millions)**

Activated Satellite Circuits	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Australia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	293	291	271	232	5,897
Brazil	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	633	645	852	1,252	4,098
Canada	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,272	647	1,992	634	1,284
China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	705	852	914	996	969
Colombia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	346	400	695	724	2,062
Dominican Republic	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	683	971	1,339	629	636
Egypt	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	210	199	226	289	2,347
El Salvador	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	237	408	407	469	1,068
France	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	300	345	343	343	22
Germany	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	455	75	347	257	612
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	198	201	224	163	317
Guatemala	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	338	415	423	502	602
Haiti	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	311	201	194	195	290
Hong Kong	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	275	356	333	208	2,215
India	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	690	862	768	955	840
Israel	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	300	483	635	458	2,914
Italy	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	177	318	223	346	296
Jamaica	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	374	431	489	460	833
Japan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,393	1,171	1,033	933	1,182
Korea, Republic of	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	534	640	493	481	460
Mexico	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	78	74	472	286	56
Morocco	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	33	34	58	60	72
Netherlands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	91	43	43	43	21
Nigeria	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	242	185	235	328	863
Pakistan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	269	339	339	368	442
Peru	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	344	528	687	799	1,358
Philippines	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	206	137	48	19	11
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	224	259	258	258	257
Russia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	613	694	554	461	442
Saudi Arabia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	317	365	396	380	510
Sierra Leone	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	17	31	31	31	31
Singapore	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	306	291	213	214	393
South Africa	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	169	278	322	514	398
Spain	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	61	102	124	166	67
Switzerland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	176	116	2	0	0
Taiwan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	171	148	132	127	130
Thailand	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	286	400	320	193	205
Turkey	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	80	189	136	138	389
United Kingdom	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,229	441	202	211	1,936
Viet Nam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	194	308	188	188	157
Total for Countries Shown Above	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	14,830	14,873	16,961	15,310	36,682
Total for Other Countries	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	11,075	14,399	20,410	21,346	28,418
Total for All Countries	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	25,905	29,272	37,371	36,656	65,100
Canada, Mexico, Germany, and UK as Percent of Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	11.7%	4.2%	8.1%	3.8%	6.0%
Other Countries Shown Above as Percent of Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	45.5%	46.6%	37.3%	38.0%	50.4%
Countries not Shown Above as Percent of Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	42.8%	49.2%	54.6%	58.2%	43.7%

See notes at the end of the tables.

**Table 13**  
**Circuits Used for International Telephone Service 17/**  
**for Selected International Points**  
**(In Millions)**

IMTS Circuits	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Australia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2,310	2,247	4,173	3,494	2,521
Brazil	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,430	1,530	1,595	2,030	1,939
Canada	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	44,384	41,869	50,501	54,909	77,827
China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,058	1,290	1,501	1,606	1,673
Colombia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,026	1,178	1,137	1,168	1,391
Dominican Republic	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,555	1,661	2,156	2,310	2,297
Egypt	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	235	203	215	278	270
El Salvador	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	338	359	390	474	637
France	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2,143	2,810	3,142	3,142	5,346
Germany	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2,706	3,835	5,120	5,595	9,261
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	314	330	404	285	373
Guatemala	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	308	365	368	465	503
Haiti	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	392	246	244	240	236
Hong Kong	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	779	1,007	1,273	1,227	1,313
India	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,004	1,358	1,418	1,144	1,453
Israel	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	676	860	1,082	1,018	1,141
Italy	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,545	1,772	1,700	2,234	2,650
Jamaica	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	587	620	639	771	668
Japan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4,888	5,629	6,582	7,041	8,681
Korea, Republic of	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,143	1,492	2,246	2,299	2,678
Mexico	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	23,270	27,812	37,030	40,350	84,536
Morocco	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	91	89	113	115	112
Netherlands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,224	1,073	1,179	2,087	1,831
Nigeria	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	232	208	232	294	364
Pakistan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	268	329	269	300	305
Peru	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	277	343	383	404	540
Philippines	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,856	2,003	2,835	3,125	3,143
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	554	744	760	1,089	1,085
Russia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,108	1,052	1,266	1,269	1,528
Saudi Arabia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	319	378	461	297	328
Sierra Leone	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	16	27	27	27	27
Singapore	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	378	623	641	835	867
South Africa	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	259	382	423	432	432
Spain	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,120	1,209	1,722	1,990	1,493
Switzerland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	927	952	1,237	2,251	1,991
Taiwan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,070	1,377	1,635	1,368	1,647
Thailand	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	342	357	439	1,368	487
Turkey	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	180	233	287	209	321
United Kingdom	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	8,530	13,149	18,197	25,444	54,780
Viet Nam	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	191	508	661	662	643
Total for Countries Shown Above	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	111,033	123,509	155,683	175,646	279,318
Total for Other Countries	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	20,689	22,599	26,674	29,159	31,083
Total for All Countries	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	131,722	146,108	182,357	204,805	310,401
Canada, Mexico, Germany, and UK as Percent of Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	59.9%	59.3%	60.8%	61.7%	72.9%
Other Countries Shown above as Percent of Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	24.4%	25.2%	24.6%	24.1%	17.0%
Countries not Shown Above as Percent of Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	15.7%	15.5%	14.6%	14.2%	10.0%

See notes at the end of the tables.

**Table 14**  
**U.S. Billed Revenues for International Private Line Service 1/**  
**for Selected International Points**  
**(In Millions)**

Private Line Revenues	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Australia	n.a.	n.a.	\$6.7	\$11.0	\$15.9	\$19.9	\$21.8	\$25.5	\$40.1	\$47.4	\$81.3
Brazil	n.a.	n.a.	6.3	5.6	6.4	7.7	10.6	14.8	17.9	26.6	26.1
Canada	n.a.	n.a.	78.6	39.5	42.0	55.4	59.8	60.6	67.1	60.2	85.3
China	n.a.	n.a.	0.3	0.3	0.6	1.1	1.7	2.9	5.8	12.7	32.6
Colombia	n.a.	n.a.	1.4	1.4	2.1	2.8	3.7	6.0	7.0	15.3	18.2
Dominican Republic	n.a.	n.a.	1.2	1.9	1.7	2.5	4.1	5.2	6.4	4.8	6.5
Egypt	n.a.	n.a.	0.2	0.2	0.2	0.1	1.0	0.1	1.1	1.4	4.8
El Salvador	n.a.	n.a.	0.2	1.8	0.3	0.8	0.9	1.1	1.4	2.2	3.8
France	n.a.	n.a.	8.3	12.1	13.6	13.2	14.1	18.3	20.4	14.2	12.0
Germany	n.a.	n.a.	9.9	13.0	12.1	18.3	26.8	31.3	48.5	37.9	44.3
Greece	n.a.	n.a.	0.5	0.4	0.4	0.3	0.2	0.3	0.5	0.4	1.2
Guatemala	n.a.	n.a.	0.5	0.4	0.5	0.7	0.8	0.9	1.3	1.4	2.3
Haiti	n.a.	n.a.	0.1	0.1	0.1	0.2	0.3	0.2	0.4	0.4	1.3
Hong Kong	n.a.	n.a.	8.2	11.1	15.0	18.6	24.2	32.3	33.4	42.6	58.5
India	n.a.	n.a.	0.7	1.0	1.7	3.6	6.0	10.3	14.6	24.7	29.3
Israel	n.a.	n.a.	1.4	2.0	1.8	1.8	3.9	6.5	7.5	8.1	15.1
Italy	n.a.	n.a.	2.8	2.5	2.6	2.9	3.7	6.2	8.5	5.5	7.5
Jamaica	n.a.	n.a.	0.4	0.6	0.8	0.8	1.0	1.5	2.0	2.2	4.4
Japan	n.a.	n.a.	26.9	40.0	48.5	49.2	46.6	64.0	92.3	109.5	159.6
Korea, Republic of	n.a.	n.a.	3.5	5.8	7.7	7.8	9.1	13.4	17.6	29.2	52.7
Mexico	n.a.	n.a.	26.9	16.4	16.7	21.5	29.6	29.9	33.9	41.6	69.1
Morocco	n.a.	n.a.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Netherlands	n.a.	n.a.	3.4	4.0	5.9	6.2	9.7	13.6	14.9	15.7	14.7
Nigeria	n.a.	n.a.	0.2	0.2	0.2	0.1	0.1	0.3	0.4	0.7	1.0
Pakistan	n.a.	n.a.	0.3	0.0	0.1	0.1	0.1	0.4	0.6	1.9	2.0
Peru	n.a.	n.a.	1.2	1.0	1.0	1.3	1.9	2.9	4.1	5.2	7.0
Philippines	n.a.	n.a.	5.5	3.8	3.5	3.9	4.9	6.0	8.9	13.7	17.6
Poland	n.a.	n.a.	0.1	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.8
Russia <u>16/</u>	n.a.	n.a.	2.2	4.2	1.2	5.7	6.8	12.4	11.0	13.3	7.9
Saudi Arabia	n.a.	n.a.	4.7	3.0	1.9	2.0	2.2	2.9	1.7	2.1	2.8
Sierra Leone	n.a.	n.a.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Singapore	n.a.	n.a.	4.5	6.9	9.9	15.0	18.7	20.4	26.3	33.8	48.1
South Africa	n.a.	n.a.	0.2	0.4	0.2	0.5	1.1	3.9	6.3	8.1	11.2
Spain	n.a.	n.a.	1.9	1.8	1.9	1.4	1.7	2.4	3.3	1.2	2.8
Switzerland	n.a.	n.a.	5.0	5.5	6.0	6.3	6.8	7.1	8.4	8.2	5.9
Taiwan	n.a.	n.a.	1.2	2.2	3.2	4.0	5.9	7.2	11.1	19.8	30.7
Thailand	n.a.	n.a.	0.5	0.5	0.9	1.3	2.0	2.8	3.9	4.4	5.7
Turkey	n.a.	n.a.	0.9	1.0	0.8	0.9	0.9	1.4	1.5	1.9	2.6
United Kingdom	n.a.	n.a.	52.4	74.3	82.7	96.4	107.4	132.6	183.0	120.8	85.8
Viet Nam	n.a.	n.a.	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.0	1.0
Total for Countries Shown Above	n.a.	n.a.	269.3	276.1	310.1	374.4	440.4	548.0	713.7	740.1	963.7
Total for Other Countries	n.a.	n.a.	39.7	47.2	56.0	66.4	73.8	112.7	137.2	181.4	237.5
Total for All Countries	208.0	201.4	309.0	323.4	366.1	440.9	514.2	660.7	850.9	921.5	1,201.2
Canada, Mexico, Germany, and UK as Percent of Total	n.a.	n.a.	54.3%	44.3%	41.9%	43.5%	43.5%	38.5%	39.1%	28.3%	23.7%
Other Countries Shown Above as Percent of Total	n.a.	n.a.	32.9%	41.1%	42.8%	41.5%	42.2%	44.5%	44.8%	52.1%	56.5%
Countries not Shown Above as Percent of Total	n.a.	n.a.	12.9%	14.6%	15.3%	15.1%	14.4%	17.1%	16.1%	19.7%	19.8%

See notes at the end of the tables.



**Table 15**  
**U.S. Billed Minutes of International Telephone Service 1/**  
**by Region of the World**  
**(In Millions)**

U.S. Billed Minutes	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Annual Growth Rates 1993 to 1999 <u>5/</u>
Africa	n.a.	n.a.	174.2	204.9	235.3	303.4	408.0	525.1	602.2	772.7	907.4	24.2 %
Antarctica and Maritime	n.a.	n.a.	3.3	3.7	11.9	10.3	8.9	4.4	10.3	16.6	3.5	6.3
Asia	n.a.	n.a.	1,273.0	1,485.5	1,756.7	2,241.9	2,851.2	3,781.7	4,704.7	4,783.6	4,878.3	20.9
Caribbean	n.a.	n.a.	625.9	723.6	735.4	912.4	1,088.8	1,264.3	1,372.2	1,645.0	1,924.6	15.3
Eastern Europe	n.a.	n.a.	161.8	192.5	246.8	337.5	408.9	538.6	586.8	712.2	1,074.4	25.6
Middle East	n.a.	n.a.	461.9	348.0	400.5	474.3	555.7	656.9	636.8	680.7	933.4	10.7
North and Central America	n.a.	n.a.	3,337.6	3,908.6	4,337.4	5,019.2	5,577.1	6,440.2	7,346.4	7,633.1	9,280.0	13.1
Oceania	n.a.	n.a.	161.3	186.5	209.3	251.9	299.8	418.8	595.0	643.2	598.1	21.2
South America	n.a.	n.a.	581.0	715.9	849.6	1,028.9	1,282.3	1,593.3	1,782.8	1,802.0	2,050.0	17.6
Western Europe	n.a.	n.a.	2,276.5	2,507.5	2,714.1	3,018.5	3,408.1	4,082.0	5,092.2	5,542.1	6,690.1	14.7
<b>Total for All Countries</b>	<b>6,750.7</b>	<b>8,029.7</b>	<b>9,071.7</b>	<b>10,293.8</b>	<b>11,513.3</b>	<b>13,615.6</b>	<b>15,888.8</b>	<b>19,325.1</b>	<b>22,753.1</b>	<b>24,249.9</b>	<b>28,363.3</b>	<b>15.9 %</b>
North and Central America as Percent of Total	n.a.	n.a.	36.8%	38.0%	37.7%	36.9%	35.1%	33.3%	32.3%	31.5%	32.7%	
Western Europe as Percent of Total	n.a.	n.a.	25.1%	24.4%	23.6%	22.2%	21.4%	21.1%	22.4%	22.9%	23.6%	
Other Regions of the World as Percent of Total	n.a.	n.a.	38.1%	37.7%	38.8%	41.0%	43.4%	45.6%	45.3%	45.7%	43.7%	

See notes at the end of the tables.

**Table 16**  
**Foreign Billed Minutes of International Telephone Service 1/**  
**by Region of the World**  
**(In Millions)**

Foreign Minutes	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Annual Growth Rates 1993 to 1999 <u>5/</u>
Africa	n.a.	n.a.	59.1	62.2	70.2	82.4	89.7	88.2	99.7	121.3	110.0	9.2 %
Antarctica and Maritime	n.a.	n.a.	4.0	4.8	2.9	2.1	1.5	5.3	0.9	0.0	6.4	-20.2
Asia	n.a.	n.a.	644.3	737.7	810.7	890.4	961.2	1,025.8	1,070.5	1,134.1	989.7	6.4
Caribbean	n.a.	n.a.	213.7	254.9	276.7	297.4	351.3	368.8	353.5	364.5	357.3	6.6
Eastern Europe	n.a.	n.a.	46.8	69.5	115.0	121.3	119.5	125.2	127.1	148.6	107.8	10.2
Middle East	n.a.	n.a.	140.3	135.1	149.5	152.3	168.0	177.6	231.0	302.3	353.7	12.6
North and Central America	n.a.	n.a.	1,965.3	2,236.1	2,383.1	2,660.6	2,982.3	3,900.5	4,201.3	4,570.3	5,224.4	13.5
Oceania	n.a.	n.a.	139.0	158.2	179.2	204.8	211.2	222.3	214.7	340.0	539.5	14.6
South America	n.a.	n.a.	219.2	234.7	240.7	291.2	354.4	388.5	457.6	491.3	455.6	11.8
Western Europe	n.a.	n.a.	1,326.4	1,463.8	1,536.5	1,655.4	1,811.6	1,971.5	2,389.2	2,712.4	2,611.1	9.8
<b>Total for All Countries</b>	<b>3,810.3</b>	<b>4,340.9</b>	<b>4,768.6</b>	<b>5,369.7</b>	<b>5,786.0</b>	<b>6,384.9</b>	<b>7,050.6</b>	<b>8,293.2</b>	<b>9,170.0</b>	<b>10,198.5</b>	<b>10,764.6</b>	<b>11.2 %</b>
North and Central America as Percent of Total	n.a.	n.a.	41.2%	41.6%	41.2%	41.7%	42.3%	47.0%	45.8%	44.8%	48.5%	
Western Europe as Percent of Total	n.a.	n.a.	27.8%	27.3%	26.6%	25.9%	25.7%	23.8%	26.1%	26.6%	24.3%	
Other Regions of the World as Percent of Total	n.a.	n.a.	31.0%	31.1%	32.3%	32.4%	32.0%	29.2%	28.1%	28.6%	27.2%	

See notes at the end of the tables.

**Table 17**  
**U.S. Billed Revenues for International Telephone Service 1/**  
**by Region of the World**  
**(In Millions)**

U.S. Billed Revenues	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Africa	n.a.	n.a.	\$235.9	\$304.3	\$323.7	\$405.9	\$524.5	\$566.0	\$607.5	\$626.7	645.3
Antarctica and Maritime	n.a.	n.a.	31.4	37.7	122.1	86.5	38.8	30.6	39.2	27.7	12.7
Asia	n.a.	n.a.	1,943.6	2,282.9	2,540.9	2,791.9	3,346.5	3,478.4	3,863.0	3,387.5	3,102.1
Caribbean	n.a.	n.a.	639.7	707.1	753.6	873.3	1,058.4	1,063.9	1,024.9	1,081.8	965.6
Eastern Europe	n.a.	n.a.	207.5	263.8	345.7	439.3	496.8	551.0	600.6	497.1	592.7
Middle East	n.a.	n.a.	633.5	476.8	544.2	578.6	685.9	693.4	686.8	617.6	664.0
North and Central America	n.a.	n.a.	2,216.8	2,555.4	2,940.9	3,110.5	3,333.9	3,410.3	3,680.5	3,602.1	3,852.5
Oceania	n.a.	n.a.	231.2	263.2	284.0	304.1	340.9	361.4	315.2	321.5	359.5
South America	n.a.	n.a.	669.8	823.0	927.8	1,055.5	1,306.5	1,351.7	1,468.4	1,300.4	1,271.3
Western Europe	n.a.	n.a.	2,387.0	2,593.2	2,699.7	2,764.1	2,916.4	2,723.1	2,939.8	2,770.7	3,027.9
<b>Total for All Countries</b>	<b>6,901.1</b>	<b>8,042.3</b>	<b>9,219.1</b>	<b>10,331.3</b>	<b>11,504.5</b>	<b>12,430.9</b>	<b>14,159.8</b>	<b>14,234.1</b>	<b>15,250.4</b>	<b>14,246.4</b>	<b>14,504.6</b>
North and Central America as Percent of Total	n.a.	n.a.	24.0%	24.7%	25.6%	25.0%	23.5%	24.0%	24.1%	25.3%	26.6%
Western Europe as Percent of Total	n.a.	n.a.	25.9%	25.1%	23.5%	22.2%	20.6%	19.1%	19.3%	19.4%	20.9%
Other Regions of the World as Percent of Total	n.a.	n.a.	50.1%	50.2%	51.0%	52.7%	55.9%	56.9%	56.6%	55.3%	52.6%

See notes at the end of the tables.

**Table 18**  
**U.S. Billed Revenue per Minute for International Telephone**  
**Service by Region of the World**

Billed Revenue per Minute	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Africa	n.a.	n.a.	\$1.35	\$1.48	\$1.38	\$1.34	\$1.29	\$1.08	\$1.01	\$0.81	\$0.71
Antarctica and Maritime	n.a.	n.a.	9.59	10.15	10.25	8.37	4.37	6.97	3.80	1.67	3.61
Asia	n.a.	n.a.	1.53	1.54	1.45	1.25	1.17	0.92	0.82	0.71	0.64
Caribbean	n.a.	n.a.	1.02	0.98	1.02	0.96	0.97	0.84	0.75	0.66	0.50
Eastern Europe	n.a.	n.a.	1.28	1.37	1.40	1.30	1.21	1.02	1.02	0.70	0.55
Middle East	n.a.	n.a.	1.37	1.37	1.36	1.22	1.23	1.06	1.08	0.91	0.71
North and Central America	n.a.	n.a.	0.66	0.65	0.68	0.62	0.60	0.53	0.50	0.47	0.42
Oceania	n.a.	n.a.	1.43	1.41	1.36	1.21	1.14	0.86	0.53	0.50	0.60
South America	n.a.	n.a.	1.15	1.15	1.09	1.03	1.02	0.85	0.82	0.72	0.62
Western Europe	n.a.	n.a.	1.05	1.03	0.99	0.92	0.86	0.67	0.58	0.50	0.45
<b>Average for All Countries</b>	<b>1.03</b>	<b>1.00</b>	<b>1.02</b>	<b>1.00</b>	<b>1.00</b>	<b>0.91</b>	<b>0.89</b>	<b>0.74</b>	<b>0.67</b>	<b>0.59</b>	<b>0.51</b>

See notes at the end of the tables.

**Table 19**  
**U.S. Billed Revenues for International Private Line Service 1/**  
**for Selected International Points**  
**(In Millions)**

Private Line Revenues	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Africa	n.a.	n.a.	\$2.4	\$2.9	\$8.3	\$4.4	\$4.7	\$6.9	\$10.4	\$14.6	\$23.3
Antarctica and Maritime	n.a.	n.a.	0.0	0.3	0.2	0.9	0.2	6.6	6.0	8.7	11.7
Asia	n.a.	n.a.	52.6	73.3	93.7	109.5	125.4	169.1	229.5	308.6	459.4
Caribbean	n.a.	n.a.	8.8	11.7	10.6	9.8	14.4	24.6	27.7	26.5	34.7
Eastern Europe	n.a.	n.a.	2.5	4.6	1.9	8.8	9.6	16.6	16.2	22.9	34.5
Middle East	n.a.	n.a.	8.0	7.3	7.2	7.5	9.1	13.6	14.2	19.6	31.6
North and Central America	n.a.	n.a.	109.9	61.0	62.7	83.1	96.9	101.9	114.3	117.3	176.1
Oceania	n.a.	n.a.	11.9	18.6	23.3	29.9	33.2	38.3	53.4	61.2	104.5
South America	n.a.	n.a.	21.4	21.2	22.3	28.7	34.1	50.0	63.4	96.9	120.6
Western Europe	n.a.	n.a.	91.4	122.5	136.0	158.3	186.4	232.3	314.9	244.8	204.4
<b>Average for All Countries</b>	<b>208.0</b>	<b>201.4</b>	<b>309.0</b>	<b>323.4</b>	<b>366.1</b>	<b>440.9</b>	<b>514.2</b>	<b>660.7</b>	<b>850.9</b>	<b>921.5</b>	<b>1,201.2</b>

**Table 20**  
**AT&T Basic Schedule Rates for 7-Minute, Peak-Period,**  
**Residential Customer Calls 18/ 22/**

	Rates as of December 31												Rates as of Oct. 1,
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
	Australia	\$11.12	\$10.60	\$10.60	\$10.60	\$10.96	\$10.96	\$12.19	\$13.03	\$10.57	\$11.90	\$13.51	\$15.54
Brazil	\$9.26	\$8.74	\$8.74	\$8.74	\$9.34	\$10.42	\$12.68	\$13.52	\$12.88	\$14.49	\$16.38	\$18.83	
Canada <u>19/</u>	\$4.28	\$4.07	\$4.07	\$4.07	\$4.28	\$4.35	\$4.83	\$4.83	\$3.78	\$4.27	\$4.90	\$5.67	
China	\$14.46	\$14.46	\$14.46	\$15.06	\$15.36	\$17.27	\$17.27	\$18.41	\$18.20	\$20.44	\$23.24	\$26.74	
Colombia	\$9.26	\$9.05	\$9.05	\$9.05	\$9.53	\$10.85	\$13.11	\$14.01	\$13.02	\$14.63	\$16.66	\$19.18	
Dominican Republic	\$7.94	\$7.81	\$7.81	\$7.81	\$7.81	\$9.47	\$9.98	\$10.64	\$11.06	\$12.46	\$14.14	\$16.24	
Egypt	\$11.05	\$11.05	\$11.05	\$11.05	\$11.47	\$12.67	\$14.85	\$15.87	\$15.19	\$17.08	\$19.39	\$22.33	
El Salvador	\$8.82	\$8.61	\$8.61	\$8.61	\$8.91	\$10.55	\$11.10	\$11.82	\$12.18	\$13.72	\$15.61	\$17.92	
France	\$8.48	\$8.07	\$8.07	\$8.07	\$8.07	\$8.19	\$9.90	\$10.56	\$9.31	\$10.50	\$11.90	\$13.72	
Germany <u>20/</u>	\$8.48	\$8.31	\$8.31	\$8.31	\$8.31	\$8.31	\$9.55	\$9.73	\$8.75	\$9.80	\$11.06	\$12.74	
Greece	\$9.49	\$9.49	\$9.49	\$9.49	\$10.69	\$11.77	\$14.47	\$15.43	\$13.65	\$15.33	\$17.36	\$19.95	
Guatemala	\$8.82	\$8.61	\$8.61	\$8.61	\$8.91	\$10.30	\$12.08	\$12.92	\$12.32	\$13.86	\$15.75	\$18.13	
Haiti	\$7.94	\$7.94	\$7.94	\$7.94	\$8.42	\$9.42	\$11.88	n.a.	\$12.25	\$13.79	\$15.68	\$18.06	
Hong Kong	\$11.72	\$11.72	\$11.72	\$11.72	\$11.72	\$11.72	\$12.75	\$13.59	\$12.88	\$14.49	\$16.38	\$18.83	
India	\$16.44	\$16.44	\$16.44	\$16.44	\$15.53	\$13.41	\$17.00	\$18.14	\$18.48	\$20.72	\$23.52	\$27.02	
Israel	\$10.96	\$10.18	\$10.18	\$10.18	\$10.42	\$13.44	\$13.96	\$14.92	\$13.79	\$15.47	\$17.50	\$20.16	
Italy	\$8.48	\$8.12	\$8.12	\$8.12	\$8.72	\$9.38	\$10.79	\$11.51	\$10.50	\$11.83	\$13.44	\$15.47	
Japan	\$11.72	\$10.49	\$10.49	\$10.49	\$10.49	\$11.43	\$12.11	\$12.95	\$10.15	\$11.41	\$12.95	\$14.91	
Jamaica	\$7.42	\$7.42	\$7.42	\$7.42	\$7.72	\$9.25	\$11.00	\$11.90	\$11.13	\$12.53	\$14.21	\$16.31	
Korea, Republic of	\$12.84	\$11.90	\$11.90	\$11.90	\$11.90	\$13.22	\$13.61	\$14.51	\$12.74	\$14.28	\$16.17	\$18.62	
Mexico <u>19/</u>	\$11.07	\$10.23	\$10.09	\$9.88	\$10.35	\$10.64	\$11.69	\$11.69	\$10.57	\$11.41	\$12.11	\$14.56	
Morocco	\$10.57	\$10.57	\$10.57	\$10.57	\$12.07	\$12.61	\$16.85	\$19.25	\$17.43	\$19.53	\$22.19	\$25.55	
Netherlands	\$8.48	\$8.00	\$8.00	\$8.00	\$8.12	\$8.12	\$9.61	\$10.27	\$9.17	\$10.36	\$11.76	\$13.51	
Nigeria	\$8.66	\$8.66	\$9.69	\$9.69	\$10.23	\$10.47	\$13.21	\$14.11	\$13.72	\$15.40	\$17.43	\$20.02	
Pakistan	\$17.14	\$16.69	\$16.69	\$16.69	\$17.89	\$20.96	\$27.12	\$28.92	\$28.91	\$32.48	\$36.82	\$42.35	
Peru	\$9.26	\$9.05	\$9.05	\$9.05	\$9.53	\$11.30	\$13.82	\$14.78	\$13.93	\$15.68	\$17.78	\$20.44	
Philippines	\$12.84	\$11.65	\$11.65	\$11.65	\$12.07	\$14.55	\$14.97	\$15.99	\$15.19	\$17.08	\$19.39	\$22.33	
Poland	\$9.73	\$9.73	\$9.73	\$9.73	\$9.73	\$9.97	\$11.18	\$11.96	\$10.99	\$12.39	\$14.07	\$16.17	
Russia <u>21/</u>	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$14.97	\$16.09	\$17.17	\$17.15	\$19.25	\$21.84	\$25.13	
Saudi Arabia	\$10.09	\$10.09	\$10.09	\$10.09	\$10.93	\$13.32	\$14.25	\$15.21	\$14.70	\$16.52	\$18.76	\$21.56	
Sierra Leone	n.a.	\$15.42	\$15.42	\$15.42	\$15.42	\$16.38	\$20.16	\$21.54	\$20.51	\$23.10	\$26.25	\$30.17	
Singapore	n.a.	\$11.42	\$11.42	\$11.42	\$11.42	\$11.42	\$11.09	\$11.81	\$11.55	\$12.95	\$14.70	\$16.94	
South Africa	\$8.66	\$8.66	\$8.66	\$8.66	\$9.38	\$10.34	\$11.52	\$12.30	\$12.25	\$13.79	\$15.68	\$18.06	
Spain	\$8.48	\$8.48	\$8.48	\$8.48	\$9.14	\$11.34	\$12.11	\$12.95	\$11.34	\$12.74	\$14.49	\$16.66	
Switzerland	\$8.48	\$8.48	\$8.48	\$8.48	\$8.90	\$8.90	\$10.68	\$11.40	\$9.87	\$11.06	\$12.53	\$14.42	
Taiwan	\$12.84	\$12.19	\$12.19	\$12.19	\$12.19	\$12.19	\$13.81	\$14.77	\$13.93	\$15.68	\$17.78	\$20.44	
Thailand	\$12.84	\$12.84	\$12.84	\$12.84	\$12.84	\$14.74	\$14.68	\$15.64	\$14.07	\$15.82	\$17.99	\$20.72	
Turkey	\$9.73	\$9.73	\$9.73	\$9.73	\$11.53	\$11.83	\$13.70	\$14.60	\$12.88	\$14.49	\$16.38	\$18.83	
United Kingdom	\$7.45	\$7.08	\$7.08	\$7.08	\$7.20	\$7.20	\$8.03	\$8.57	\$7.63	\$8.54	\$9.66	\$11.13	
Vietnam	n.a.	n.a.	n.a.	n.a.	\$15.93	\$15.93	\$18.47	\$19.73	\$20.02	\$22.47	\$25.48	\$29.33	
Fisher Ideal Rate Index	88.6	84.7	84.6	84.4	87.5	92.5	103.7	108.1	96.7	108.6	122.7	143.2	
% Changes from Prior Rate	-1.8%	-4.3%	-0.2%	-0.2%	3.6%	5.7%	12.2%	4.2%	-10.6%	12.3%	13.0%	16.7%	
Index without Mexico	87.0	83.7	83.7	83.8	86.6	91.7	102.9	107.5	95.5	107.4	122.1	140.7	
% Changes from Prior Rate	-2.1%	-3.8%	0.0%	0.0%	3.3%	6.0%	12.1%	4.5%	-11.2%	12.5%	13.7%	15.2%	
Weighted Average Charge per Minute	\$1.19	\$1.13	\$1.15	\$1.15	\$1.20	\$1.30	\$1.48	\$1.57	\$1.45	\$1.65	\$1.87	\$2.17	

See notes at the end of the tables.

**Table 21**  
**AT&T Basic Schedule Rates for 7-Minute, Peak-Period,**  
**Commercial Customer Calls 18/ 22/**

	Rates as of December 31											Rates as of Oct. 1,
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	Australia	\$11.12	\$10.60	\$10.60	\$10.60	\$10.96	\$12.71	\$13.62	\$14.98	\$18.41	\$18.41	\$20.51
Brazil	\$9.26	\$8.74	\$8.74	\$8.74	\$9.34	\$10.43	\$11.19	\$12.35	\$15.05	\$15.05	\$16.73	\$16.73
Canada <u>19/</u>	\$4.28	\$4.07	\$4.07	\$4.07	\$4.28	\$4.84	\$4.98	\$5.54	\$6.09	\$6.09	\$6.79	\$6.79
China	\$14.46	\$14.46	\$14.46	\$15.06	\$15.36	\$18.38	\$19.34	\$21.24	\$25.55	\$25.55	\$28.42	\$28.42
Colombia	\$9.26	\$9.05	\$9.05	\$9.05	\$9.53	\$10.78	\$11.58	\$12.72	\$14.63	\$14.63	\$16.24	\$16.24
Dominican Republic	\$7.94	\$7.81	\$7.81	\$7.81	\$7.81	\$9.36	\$9.86	\$10.88	\$12.25	\$12.25	\$13.58	\$13.58
Egypt	\$11.05	\$11.05	\$11.05	\$11.05	\$11.47	\$13.75	\$14.53	\$15.95	\$17.36	\$17.36	\$19.32	\$19.32
El Salvador	\$8.82	\$8.61	\$8.61	\$8.61	\$8.91	\$10.62	\$11.23	\$12.35	\$14.14	\$14.14	\$15.68	\$15.68
France	\$8.48	\$8.07	\$8.07	\$8.07	\$8.07	\$9.67	\$10.31	\$11.37	\$13.09	\$13.09	\$14.56	\$14.56
Germany <u>20/</u>	\$8.48	\$8.31	\$8.31	\$8.31	\$8.31	\$9.92	\$10.44	\$11.50	\$13.30	\$13.30	\$14.77	\$14.77
Greece	\$9.49	\$9.49	\$9.49	\$9.49	\$10.69	\$11.35	\$12.20	\$13.44	\$14.84	\$14.84	\$16.52	\$16.52
Guatemala	\$8.82	\$8.61	\$8.61	\$8.61	\$8.91	\$10.62	\$11.23	\$12.35	\$13.09	\$13.09	\$14.56	\$14.56
Haiti	\$7.94	\$7.94	\$7.94	\$7.94	\$8.42	\$9.81	\$10.54	\$11.60	\$12.60	\$12.60	\$14.00	\$17.01
Hong Kong	\$11.72	\$11.72	\$11.72	\$11.72	\$11.72	\$13.99	\$14.76	\$16.30	\$22.33	\$22.33	\$24.85	\$24.85
India	\$16.44	\$16.44	\$16.44	\$16.44	\$15.53	\$18.63	\$19.60	\$21.54	\$23.94	\$23.94	\$26.60	\$26.60
Israel	\$10.96	\$10.18	\$10.18	\$10.18	\$10.42	\$12.21	\$13.11	\$14.45	\$16.73	\$16.73	\$18.55	\$18.55
Italy	\$8.48	\$8.12	\$8.12	\$8.12	\$8.72	\$9.69	\$9.99	\$10.95	\$19.39	\$19.39	\$21.49	\$21.49
Japan	\$11.72	\$10.49	\$10.49	\$10.49	\$10.49	\$12.59	\$12.94	\$14.28	\$17.50	\$17.50	\$19.46	\$19.46
Jamaica	\$7.42	\$7.42	\$7.42	\$7.42	\$7.72	\$9.21	\$9.72	\$10.74	\$11.83	\$11.83	\$13.16	\$13.16
Korea, Republic of	\$12.84	\$11.90	\$11.90	\$11.90	\$11.90	\$14.24	\$15.01	\$16.55	\$22.68	\$22.68	\$25.20	\$25.20
Mexico <u>19/</u>	\$11.07	\$10.23	\$10.09	\$9.88	\$10.35	\$13.23	\$13.86	\$15.26	\$13.37	\$13.37	\$14.84	\$14.84
Morocco	\$10.57	\$10.57	\$10.57	\$10.57	\$12.53	\$14.44	\$15.21	\$16.73	\$18.48	\$18.48	\$20.58	\$24.57
Netherlands	\$8.48	\$8.00	\$8.00	\$8.00	\$8.12	\$9.60	\$9.65	\$11.12	\$12.88	\$12.88	\$14.35	\$14.35
Nigeria	\$8.66	\$8.66	\$9.69	\$9.69	\$10.23	\$11.58	\$12.26	\$13.52	\$14.70	\$14.70	\$16.31	\$16.31
Pakistan	\$17.14	\$16.69	\$16.69	\$16.69	\$17.89	\$19.96	\$21.44	\$23.56	\$24.92	\$24.92	\$27.65	\$27.65
Peru	\$9.26	\$9.05	\$9.05	\$9.05	\$9.53	\$10.78	\$11.58	\$12.72	\$13.86	\$13.86	\$15.40	\$15.40
Philippines	\$12.84	\$11.65	\$11.65	\$11.65	\$12.07	\$13.91	\$14.89	\$16.38	\$18.34	\$18.34	\$20.37	\$20.37
Poland	\$9.73	\$9.73	\$9.73	\$9.73	\$9.73	\$11.67	\$12.29	\$13.53	\$14.56	\$14.56	\$16.17	\$16.17
Russia <u>21/</u>	\$14.31	\$14.31	\$14.31	\$14.31	\$14.31	\$17.16	\$18.07	\$19.91	\$21.84	\$21.84	\$24.22	\$24.22
Saudi Arabia	\$10.09	\$10.09	\$10.09	\$10.09	\$10.93	\$12.63	\$13.55	\$14.91	\$17.43	\$17.43	\$19.39	\$19.39
Sierra Leone	n.a.	\$15.42	\$15.42	\$15.42	\$16.02	\$18.43	\$13.82	\$21.78	\$23.59	\$23.59	\$26.18	\$30.24
Singapore	n.a.	\$11.42	\$11.42	\$11.42	\$11.42	\$13.63	\$14.38	\$15.88	\$19.53	\$19.53	\$21.63	\$24.57
South Africa	\$8.66	\$8.66	\$8.66	\$8.66	\$9.38	\$10.69	\$11.48	\$12.58	\$14.77	\$14.77	\$16.38	\$16.38
Spain	\$8.48	\$8.48	\$8.48	\$8.48	\$9.14	\$10.13	\$10.84	\$11.92	\$13.93	\$13.93	\$15.47	\$15.47
Switzerland	\$8.48	\$8.48	\$8.48	\$8.48	\$8.90	\$10.13	\$10.84	\$11.92	\$13.93	\$13.93	\$15.47	\$15.47
Taiwan	\$12.84	\$12.19	\$12.19	\$12.19	\$12.19	\$14.63	\$15.39	\$16.92	\$20.79	\$20.79	\$23.10	\$23.10
Thailand	\$12.84	\$12.84	\$12.84	\$12.84	\$12.84	\$15.35	\$16.20	\$17.78	\$22.19	\$22.19	\$24.64	\$24.64
Turkey	\$9.73	\$9.73	\$9.73	\$9.73	\$11.53	\$12.57	\$13.49	\$14.85	\$16.66	\$16.66	\$18.48	\$22.68
United Kingdom	\$7.45	\$7.08	\$7.08	\$7.08	\$7.20	\$8.51	\$8.73	\$9.63	\$11.06	\$11.06	\$12.25	\$12.25
Vietnam	n.a.	n.a.	n.a.	n.a.	\$16.52	\$19.02	\$20.04	\$22.08	\$23.80	\$23.80	\$26.46	\$30.24
Fisher Ideal Rate Index	88.6	84.7	84.6	84.4	87.4	103.3	108.0	119.0	132.2	132.2	146.9	147.8
% Changes from Prior Rate	-1.8%	-4.3%	-0.2%	-0.3%	3.5%	18.3%	4.5%	10.2%	11.1%	0.0%	11.1%	0.6%
Index without Mexico	87.1	83.3	83.3	83.2	86.3	102.4	107.4	119.1	136.1	136.1	152.4	153.6
% Changes from Prior Rate	-2.1%	-4.3%	-0.1%	-0.1%	3.7%	18.8%	4.8%	11.0%	14.3%	0.0%	12.0%	0.7%
Weighted Average Charge per Minute	\$1.19	\$1.13	\$1.15	\$1.15	\$1.20	\$1.46	\$1.56	\$1.75	\$1.98	\$2.00	\$2.21	\$2.22

See notes at the end of the tables.

**Table 22**  
**AT&T Discount Rates for 7-Minute, Peak-Period,**  
**Residential Customer Calls 18/ 22/**

	Rates as of December 31											Rates as of October 1,
	Reach Out World			TrueWorld Savings				One Rate				
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Australia	\$5.81	\$5.60	\$5.46	\$8.21	\$9.46	\$9.46	\$10.08	\$3.09	\$3.29	\$3.29	\$3.29	\$3.29
Brazil	\$5.46	\$4.62	\$4.62	\$7.68	\$8.01	\$9.30	\$9.91	\$4.30	\$4.34	\$4.34	\$4.34	\$4.34
Canada	\$2.66	\$2.66	\$2.80	\$3.33	\$3.14	\$3.30	\$3.53	\$0.84	\$0.84	\$0.84	\$0.84	\$0.84
China	n.o.	n.o.	n.o.	\$10.12	\$9.52	\$13.55	\$14.45	\$8.33	\$9.17	\$9.17	\$9.17	\$9.17
Colombia	n.o.	\$4.62	\$4.62	\$7.68	\$8.40	\$9.74	\$10.42	\$5.27	\$5.32	\$5.32	\$5.32	\$5.32
Dominican Republic.	n.o.	n.o.	n.o.	\$6.49	\$6.38	\$8.23	\$8.79	\$3.78	\$3.85	\$3.85	\$4.27	\$4.27
Egypt	n.o.	n.o.	n.o.	\$8.81	\$9.46	\$10.98	\$11.70	\$6.20	\$6.37	\$6.37	\$7.00	\$7.00
El Salvador	n.o.	n.o.	n.o.	\$7.20	\$7.00	\$8.46	\$9.02	\$5.55	\$5.60	\$5.60	\$5.60	\$5.60
France	\$4.34	\$4.34	\$4.34	\$6.37	\$5.99	\$7.34	\$7.84	\$2.45	\$2.03	\$2.03	\$2.03	\$2.03
Germany	\$4.34	\$4.34	\$4.34	\$6.49	\$6.10	\$7.17	\$7.67	\$2.45	\$2.03	\$2.03	\$2.03	\$2.03
Greece	n.o.	\$4.34	\$4.34	\$8.45	\$9.24	\$10.75	\$11.48	\$2.45	\$2.03	\$2.03	\$2.03	\$2.03
Guatemala	n.o.	n.o.	n.o.	\$7.20	\$7.00	\$9.02	\$9.63	\$5.10	\$5.11	\$5.11	\$5.11	\$5.11
Haiti	n.o.	n.o.	n.o.	n.a.	n.a.	n.a.	n.a.	\$5.39	\$5.60	\$5.60	\$6.16	\$6.16
Hong Kong	\$5.81	\$5.46	\$5.46	\$8.81	\$8.29	\$9.52	\$10.14	\$4.20	\$4.62	\$4.62	\$5.11	\$5.11
India	n.o.	\$11.41	\$10.92	\$12.67	\$10.47	\$11.98	\$12.77	\$7.79	\$8.54	\$8.54	\$8.54	\$8.54
Israel	\$6.23	\$5.18	\$5.18	\$8.45	\$9.02	\$10.58	\$11.31	\$4.31	\$4.48	\$4.48	\$4.48	\$4.48
Italy	\$4.34	\$4.34	\$4.48	\$6.78	\$7.00	\$7.84	\$8.34	\$2.45	\$2.03	\$2.03	\$2.03	\$2.03
Japan	\$5.81	\$5.46	\$5.46	\$8.45	\$8.29	\$9.24	\$9.86	\$3.30	\$3.36	\$3.36	\$3.36	\$3.36
Jamaica	n.o.	\$4.13	\$4.13	\$6.72	\$7.34	\$8.34	\$8.90	\$5.12	\$5.32	\$5.32	\$5.32	\$5.32
Korea, Republic of	\$5.81	\$5.60	\$5.60	\$9.52	\$9.80	\$10.42	\$11.09	\$4.13	\$4.55	\$4.55	\$4.55	\$4.55
Mexico <u>19/</u>	\$10.23	\$10.09	\$9.88	\$8.39	\$8.12	\$8.90	\$9.52	\$4.55	\$3.43	\$3.43	\$3.43	\$3.43
Morocco				n.a.	n.a.	n.a.	n.a.	\$5.94	\$6.16	\$6.16	\$6.79	\$6.79
Netherlands	\$4.34	\$4.34	\$4.34	\$6.25	\$5.88	\$7.11	\$7.56	\$2.45	\$2.03	\$2.03	\$2.24	\$2.24
Nigeria				\$7.08	\$6.66	\$8.57	\$9.13	\$5.14	\$5.32	\$5.32	\$5.88	\$5.88
Pakistan	\$14.21	\$8.47	\$8.82	\$14.70	\$16.41	\$19.94	\$21.28	\$9.10	\$9.24	\$9.24	\$10.15	\$10.15
Peru	\$5.81	\$4.62	\$4.62	\$7.91	\$8.46	\$9.91	\$10.58	\$5.21	\$5.25	\$5.25	\$5.81	\$5.81
Philippines	\$7.63	\$5.60	\$5.60	\$9.04	\$9.58	\$11.31	\$12.04	\$4.90	\$5.39	\$5.39	\$5.39	\$5.39
Poland	n.o.	n.o.	n.o.	\$7.62	\$7.56	\$8.23	\$8.79	\$4.10	\$3.50	\$3.50	\$3.50	\$3.50
Russia	n.o.	n.o.	n.o.	\$11.60	\$10.92	\$11.48	\$12.26	\$7.96	\$8.75	\$8.75	\$8.75	\$8.75
Saudi Arabia	n.o.	n.o.	n.o.	\$8.81	\$8.96	\$10.47	\$11.14	\$7.59	\$7.77	\$7.77	\$8.54	\$8.54
Sierra Leone	n.o.	n.o.	n.o.	n.a.	n.a.	n.a.	n.a.	\$6.40	\$6.72	\$6.72	\$7.42	\$7.42
Singapore				n.a.	n.a.	n.a.	n.a.	\$2.70	\$2.94	\$2.94	\$3.22	\$3.22
South Africa	n.o.	n.o.	n.o.	\$7.38	\$7.22	\$8.23	\$8.79	\$3.49	\$3.71	\$3.71	\$4.06	\$4.06
Spain	\$4.34	\$4.34	\$4.34	\$7.20	\$7.34	\$9.07	\$9.69	\$2.45	\$2.03	\$2.03	\$2.03	\$2.03
Switzerland	\$4.34	\$4.34	\$4.34	\$6.90	\$6.89	\$8.06	\$8.62	\$2.45	\$2.03	\$2.03	\$2.24	\$2.24
Taiwan	\$5.81	\$5.46	\$5.46	\$9.52	\$8.96	\$10.36	\$11.03	\$4.14	\$4.55	\$4.55	\$4.55	\$4.55
Thailand	\$5.81	\$5.60	\$5.60	\$9.58	\$9.02	\$11.14	\$11.87	\$5.21	\$5.74	\$5.74	\$6.30	\$6.30
Turkey				n.a.	n.a.	n.a.	n.a.	\$4.19	\$4.34	\$4.34	\$4.76	\$4.76
United Kingdom	\$4.13	\$4.13	\$4.13	\$5.65	\$5.32	\$5.82	\$6.22	\$0.84	\$0.84	\$0.84	\$0.84	\$0.84
Viet Nam	n.o.	n.o.	n.o.	n.a.	n.a.	n.a.	n.a.	\$8.13	\$8.96	\$8.96	\$8.96	\$8.96
Weighted Average Price per Minute for Rates Shown	\$0.75	\$0.73	\$0.73	\$0.95	\$0.95	\$1.10	\$1.18	\$0.50	\$0.49	\$0.49	\$0.50	\$0.50

See notes at the end of the tables.

**Table 23**  
**AT&T Discount Rates for 7-Minute, Off Peak-Period,**  
**Residential Customer Calls 18/ 22/**

	Rates as of December 31											Rates as of October 1,
	Reach Out World			TrueWorld Savings				One Rate				2000
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999		
Australia	\$5.81	\$5.60	\$5.46	\$4.64	\$4.87	\$4.87	\$5.21	\$3.09	\$3.29	\$3.29	\$3.29	
Brazil	\$5.46	\$4.62	\$4.62	\$4.28	\$4.70	\$5.60	\$5.99	\$4.30	\$4.34	\$4.34	\$4.34	
Canada	\$2.66	\$2.66	\$2.80	\$1.13	\$1.18	\$1.34	\$1.23	\$0.84	\$0.84	\$0.84	\$0.84	
China	n.o.	n.o.	n.o.	\$6.96	\$6.89	\$9.13	\$9.74	\$8.33	\$9.17	\$9.17	\$9.17	
Colombia	n.o.	\$4.62	\$4.62	\$4.34	\$4.82	\$5.66	\$6.05	\$5.27	\$5.32	\$5.32	\$5.32	
Dominican Republic	n.o.	n.o.	n.o.	\$4.76	\$4.70	\$5.60	\$5.99	\$3.78	\$3.85	\$3.85	\$4.27	
Egypt	n.o.	n.o.	n.o.	\$6.13	\$6.05	\$7.22	\$7.73	\$6.20	\$6.37	\$6.37	\$7.00	
El Salvador	n.o.	n.o.	n.o.	\$5.12	\$5.04	\$5.94	\$6.33	\$5.55	\$5.60	\$5.60	\$5.60	
France	\$4.34	\$4.34	\$4.34	\$3.69	\$3.47	\$3.86	\$4.03	\$2.45	\$2.03	\$2.03	\$2.03	
Germany	\$4.34	\$4.34	\$4.34	\$3.69	\$3.47	\$3.75	\$4.03	\$2.45	\$2.03	\$2.03	\$2.03	
Greece	n.o.	\$4.34	\$4.34	\$3.87	\$4.54	\$5.43	\$5.77	\$2.45	\$2.03	\$2.03	\$2.03	
Guatemala	n.o.	n.o.	n.o.	\$5.12	\$5.04	\$5.94	\$6.33	\$5.10	\$5.11	\$5.11	\$5.11	
Haiti	n.o.	n.o.	n.o.	n.a.	n.a.	n.a.	n.a.	\$5.39	\$5.60	\$5.60	\$6.16	
Hong Kong	\$5.81	\$5.46	\$5.46	\$4.64	\$4.54	\$5.21	\$5.54	\$4.20	\$4.62	\$4.62	\$5.11	
India	n.o.	\$11.41	\$10.92	\$9.28	\$7.84	\$8.12	\$9.24	\$7.79	\$8.54	\$8.54	\$8.54	
Israel	\$6.23	\$5.18	\$5.18	\$4.40	\$4.70	\$5.66	\$6.05	\$4.31	\$4.48	\$4.48	\$4.48	
Italy	\$4.34	\$4.34	\$4.48	\$4.05	\$4.31	\$4.93	\$5.26	\$2.45	\$2.03	\$2.03	\$2.03	
Japan	\$5.81	\$5.46	\$5.46	\$4.64	\$4.54	\$5.21	\$5.54	\$3.30	\$3.36	\$3.36	\$3.36	
Jamaica	n.o.	\$4.13	\$4.13	\$4.11	\$4.65	\$5.49	\$5.88	\$5.12	\$5.32	\$5.32	\$5.32	
Korea, Republic of	\$5.81	\$5.60	\$5.60	\$4.76	\$4.48	\$4.93	\$5.26	\$4.13	\$4.55	\$4.55	\$4.55	
Mexico <u>19/</u>	\$6.30	\$6.30	\$6.30	\$5.36	\$4.98	\$5.60	\$5.99	\$4.55	\$3.43	\$3.43	\$3.43	
Morocco				n.a.	n.a.	n.a.	n.a.	\$5.94	\$6.16	\$6.16	\$6.79	
Netherlands	\$4.34	\$4.34	\$4.34	\$3.69	\$3.47	\$4.14	\$4.42	\$2.45	\$2.03	\$2.03	\$2.24	
Nigeria				\$5.89	\$5.54	\$6.61	\$7.06	\$5.14	\$5.32	\$5.32	\$5.88	
Pakistan	\$14.21	\$8.47	\$8.82	\$7.79	\$8.40	\$10.47	\$11.14	\$9.10	\$9.24	\$9.24	\$10.15	
Peru	\$5.81	\$4.62	\$4.62	\$4.22	\$4.82	\$5.66	\$6.05	\$5.21	\$5.25	\$5.25	\$5.81	
Philippines	\$7.63	\$5.60	\$5.60	\$4.82	\$5.43	\$6.05	\$6.44	\$4.90	\$5.39	\$5.39	\$5.39	
Poland	n.o.	n.o.	n.o.	\$4.40	\$4.59	\$5.43	\$5.77	\$4.10	\$3.50	\$3.50	\$3.50	
Russia	n.o.	n.o.	n.o.	\$7.91	\$7.73	\$8.01	\$8.57	\$7.96	\$8.75	\$8.75	\$8.75	
Saudi Arabia	n.o.	n.o.	n.o.	\$5.53	\$5.43	\$6.89	\$7.34	\$7.59	\$7.77	\$7.77	\$8.54	
Sierra Leone	n.o.	n.o.	n.o.	n.a.	n.a.	n.a.	n.a.	\$6.40	\$6.72	\$6.72	\$7.42	
Singapore				n.a.	n.a.	n.a.	n.a.	\$2.70	\$2.94	\$2.94	\$3.22	
South Africa	n.o.	n.o.	n.o.	\$4.52	\$4.54	\$5.43	\$5.77	\$3.49	\$3.71	\$3.71	\$4.06	
Spain	\$4.34	\$4.34	\$4.34	\$4.22	\$4.59	\$5.43	\$5.77	\$2.45	\$2.03	\$2.03	\$2.03	
Switzerland	\$4.34	\$4.34	\$4.34	\$3.69	\$3.64	\$4.31	\$4.59	\$2.45	\$2.03	\$2.03	\$2.24	
Taiwan	\$5.81	\$5.46	\$5.46	\$4.64	\$4.37	\$4.87	\$5.21	\$4.14	\$4.55	\$4.55	\$4.55	
Thailand	\$5.81	\$5.60	\$5.60	\$4.76	\$4.48	\$5.43	\$5.77	\$5.21	\$5.74	\$5.74	\$6.30	
Turkey				n.a.	n.a.	n.a.	n.a.	\$4.19	\$4.34	\$4.34	\$4.76	
United Kingdom	\$4.13	\$4.13	\$4.13	\$3.51	\$3.30	\$3.81	\$4.03	\$0.84	\$0.84	\$0.84	\$0.84	
Viet Nam	n.o.	n.o.	n.o.	n.a.	n.a.	n.a.	n.a.	\$8.13	\$8.96	\$8.96	\$8.96	
Weighted Average Price per Minute for Rates Shown	\$0.65	\$0.64	\$0.64	\$0.54	\$0.55	\$0.64	\$0.68	\$0.50	\$0.49	\$0.49	\$0.50	

See notes at the end of the tables.

**Table 24**  
**Accounting Rates for Peak-Period**  
**International Telephone Service Calls**  
**for Selected International Points 23/**

	Year-End Data											Rates as of Nov. 1
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Australia	1.2 SDR	0.8 SDR	0.68 SDR	0.6 SDR	0.55 SDR	0.4 SDR	0.4 SDR	0.308 SDR	0.308 SDR	0.22 SDR	0.22 SDR	0.22 SDR
Brazil	\$2.50	\$2.50	\$1.60	\$1.50	\$1.40	\$1.27	\$1.14	\$1.03	\$0.85	\$0.65	\$0.60	\$0.38
Canada <u>24/</u>	\$0.42	\$0.28	\$0.28	\$0.28	\$0.28	\$0.26	\$0.24	\$0.22	\$0.20	\$0.20	\$0.20	\$0.20
China	8.0 GF	8.0 GF	7.5 GF	7.5 GF	6.5 GF	6.0 GF	5.5 GF	4.5 GF	3.8 GF	3.1 GF	0.74 SDR	0.74 SDR
Colombia	\$1.85	\$1.75	\$1.60	\$1.55	\$1.50	\$1.40	\$1.30	\$1.25	\$1.00	\$0.80	\$0.65	\$0.60
Dominican Republic <u>24/</u>	\$1.45	\$1.42	\$1.39	\$1.36	\$1.29	\$1.30	\$1.10	\$0.90	\$0.70	\$0.60	\$0.38	\$0.38
Egypt	\$1.95	\$1.90	\$1.80	\$1.70	\$1.60	\$1.50	\$1.40	\$1.40	\$1.30	\$1.30	\$1.10	\$0.90
El Salvador	\$1.50	\$1.50	\$1.40	\$1.30	\$1.25	\$1.20	\$1.20	\$1.10	\$0.88	\$0.77	\$0.60	\$0.60
France <u>24/</u>	1.2 SDR	1.2 SDR	1.0 SDR	0.7 SDR	0.7 SDR	0.42 SDR	0.36 SDR	0.24 SDR	0.19 SDR	0.15 SDR	0.15 SDR	0.15 SDR
Germany	1.2 SDR	1.2 SDR	1.0 SDR	0.8 SDR	0.6 SDR	0.34 SDR	0.26 SDR	0.16 SDR	0.15 SDR	0.15 SDR	0.15 SDR	0.15 SDR
Greece	5.0 GF	5.0 GF	1.53 SDR	1.21 SDR	1.12 SDR	.95 SDR	.85 SDR	0.7 SDR	0.63 SDR	0.4 SDR	0.22 SDR	0.2 SDR
Guatemala	\$1.50	\$1.50	\$1.50	\$1.40	\$1.30	\$1.20	\$1.18	\$1.00	\$0.90	\$0.77	\$0.64	\$0.51
Haiti	\$1.45	\$1.45	\$1.40	\$1.35	\$1.30	\$1.25	\$1.20	\$1.20	\$1.20	\$1.20	\$1.00	\$1.00
Hong Kong	\$2.35	\$2.20	\$1.90	\$1.60	\$1.20	\$1.00	\$1.00	.65 SDR	.58 SDR	.52 SDR	0.1 SDR	0.1 SDR
India	\$2.25	\$2.25	\$2.25	\$2.00	\$1.90	\$1.80	\$1.80	\$1.60	\$1.42	\$1.28	\$1.08	\$0.85
Israel <u>24/</u>	\$2.40	\$2.40	\$2.40	\$2.28	\$2.16	\$2.16	\$1.90	\$1.18	\$0.70	\$0.59	\$0.30	\$0.30
Italy	5.0 GF	4.6 GF	4.38 GF	1.2 SDR	1.1 SDR	0.82 SDR	0.48 SDR	0.36 SDR	0.24 SDR	0.16 SDR	0.16 SDR	0.16 SDR
Jamaica	\$1.75	\$1.65	\$1.60	\$1.55	\$1.50	\$1.40	\$1.40	\$1.30	\$1.25	\$1.25	\$1.05	\$0.60
Japan <u>24/</u>	1.34 SDR	1.34 SDR	1.13 SDR	0.95 SDR	0.75 SDR	0.63 SDR	0.63 SDR	0.63 SDR	0.63 SDR	0.21 SDR	0.21 SDR	0.21 SDR
Korea, Rep.	\$2.36	\$2.10	\$1.90	\$1.60	\$1.44	0.95 SDR	0.85 SDR	0.85 SDR	0.72 SDR	\$0.85	\$0.71	\$0.51
Mexico <u>25/</u>	\$0.89	\$0.79	\$0.75	\$0.72	\$0.68	\$0.58	\$0.53	\$0.48	\$0.40	\$0.37	\$0.19	\$0.19
Morocco	2.5 SDR	2.5 SDR	2.5 SDR	2.2 SDR	2.2 SDR	2.2 SDR	1.2 SDR	1.0 SDR	0.8 SDR	0.6 SDR	0.6 SDR	0.6 SDR
Netherlands	1.1 SDR	1.1 SDR	0.9 SDR	0.5 SDR	0.5 SDR	0.4 SDR	0.25 SDR	0.25 SDR	0.2 SDR	0.14 SDR	0.1 SDR	0.1 SDR
Nigeria	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.40	\$1.15	0.6 SDR
Pakistan	\$2.55	\$2.30	\$2.30	\$2.30	\$2.30	\$2.30	\$2.30	\$2.20	\$2.00	\$1.20	\$1.20	\$1.02
Peru	\$2.00	\$2.00	\$2.00	\$1.50	\$1.40	\$1.30	\$1.30	\$1.23	\$1.00	\$0.85	\$0.66	\$0.50
Philippines	\$1.98	\$1.92	\$1.85	\$1.68	\$1.68	\$1.34	\$1.23	\$1.00	\$1.00	\$0.72	\$0.57	\$0.38
Poland	\$1.50	\$1.50	\$1.35	\$1.30	\$1.25	\$1.20	\$1.15	\$0.95	\$0.70	\$0.55	\$0.38	\$0.38
Russia	\$3.00	\$3.00	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60
Saudia Arabia	\$2.36	\$2.36	\$2.20	\$2.20	\$2.20	\$2.20	\$2.20	\$2.20	1.5 SDR	1.25 SDR	1.0 SDR	\$0.28
Sierra Leone	\$3.00	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50
Singapore	0.84 SDR	0.84 SDR	0.68 SDR	0.62 SDR	0.62 SDR	0.62 SDR	0.62 SDR	0.62 SDR	0.62 SDR	0.38 SDR	\$0.30	\$0.30
South Africa	\$2.00	\$2.00	\$1.80	\$1.80	\$1.50	\$1.20	\$1.20	\$1.00	\$1.00	\$0.80	\$0.70	\$0.60
Spain <u>24/</u>	1.6 SDR	1.6 SDR	1.5 SDR	1.5 SDR	1.3 SDR	1.2 SDR	1.0 SDR	.44 SDR	.35 SDR	.2 SDR	.2 SDR	.2 SDR
Switzerland	1.12 SDR	1.12 SDR	.808 SDR	.808 SDR	.61 SDR	.61 SDR	.35 SDR	.35 SDR	.25 SDR	.2 SDR	.2 SDR	.2 SDR
Taiwan	\$1.90	\$1.80	\$1.60	\$1.40	\$1.20	\$1.20	\$1.20	\$1.20	\$1.14	\$0.45	\$0.30	\$0.30
Thailand	\$2.30	\$2.30	\$2.00	\$1.75	\$1.60	\$1.60	\$1.55	\$1.50	\$1.20	\$0.90	\$0.60	\$0.48
Turkey	\$2.00	\$2.00	\$2.00	1.4 SDR	1.2 SDR	1.2 SDR	1.1 SDR	0.8 SDR	0.6 SDR	.55 SDR	.48 SDR	.4 SDR
United Kingdom <u>24/</u>	\$1.06	\$1.06	.68 SDR	0.54 SDR	0.44 SDR	0.33 SDR	0.25 SDR	0.25 SDR	0.15 SDR	0.15 SDR	0.15 SDR	0.15 SDR
Viet Nam	n.a.	n.a.	n.a.	\$2.30	\$2.30	\$2.30	\$2.30	\$2.30	\$2.30	\$2.30	1.15 SDR	1.0 SDR

See notes at the end of the tables.

**Table 25**  
**Dollar Equivalent Accounting Rates for Peak Period**  
**International Telephone Service Calls**  
**For Selected International Points**

	Year-End Data											Rates as of Nov. 1
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Australia	\$1.58	\$1.14	\$0.97	\$0.83	\$0.76	\$0.59	\$0.59	\$0.45	\$0.42	\$0.30	\$0.30	\$0.28
Brazil	2.50	2.50	1.60	1.50	1.40	1.27	1.14	1.03	0.85	0.65	0.60	0.60
Canada <u>24/</u>	0.42	0.28	0.28	0.28	0.28	0.26	0.24	0.22	0.20	0.20	0.20	0.20
China	3.43	3.72	3.48	3.37	2.93	2.91	2.67	2.13	1.69	1.40	1.01	0.95
Colombia	1.85	1.75	1.60	1.55	1.50	1.40	1.30	1.25	1.00	0.80	0.65	0.60
Dominican Republic <u>24/</u>	1.45	1.42	1.39	1.36	1.29	1.30	1.10	0.90	0.70	0.60	0.38	0.38
Egypt	1.95	1.90	1.80	1.70	1.60	1.50	1.40	1.40	1.30	1.30	1.10	0.90
El Salvador	1.50	1.50	1.40	1.30	1.25	1.20	1.20	1.10	0.88	0.77	0.60	0.60
France <u>24/</u>	1.58	1.71	1.43	0.96	0.97	0.62	0.54	0.35	0.26	0.21	0.21	0.19
Germany	1.58	1.71	1.43	1.10	0.83	0.51	0.39	0.23	0.20	0.21	0.21	0.19
Greece	2.15	2.32	2.19	1.66	1.55	1.41	1.26	1.01	0.86	0.55	0.30	0.26
Guatemala	1.50	1.50	1.50	1.40	1.30	1.20	1.18	1.00	0.90	0.77	0.64	0.51
Haiti	1.45	1.45	1.40	1.35	1.30	1.25	1.20	1.20	1.20	1.20	1.00	1.00
Hong Kong	2.35	2.20	1.90	1.60	1.20	1.00	1.00	0.94	0.79	0.72	0.14	0.13
India	2.25	2.25	2.25	2.00	1.90	1.80	1.80	1.60	1.42	1.28	1.08	0.85
Israel <u>24/</u>	2.40	2.40	2.40	2.28	2.16	2.16	1.90	1.18	0.70	0.59	0.30	0.30
Italy	2.15	2.14	2.04	1.65	1.51	1.22	0.71	0.52	0.33	0.22	0.22	0.21
Jamaica	1.75	1.65	1.60	1.55	1.50	1.40	1.40	1.30	1.25	1.25	1.05	0.60
Japan <u>24/</u>	1.76	1.91	1.62	1.31	1.04	0.94	0.94	0.91	0.86	0.29	0.29	0.27
Korea, Rep.	2.36	2.10	1.90	1.60	1.44	1.41	1.26	1.23	0.98	0.85	0.71	0.51
Mexico <u>25/</u>	0.89	0.79	0.75	0.72	0.68	0.58	0.53	0.48	0.40	0.37	0.19	0.19
Morocco	3.29	3.56	3.58	3.03	3.04	3.27	1.78	1.45	1.09	0.83	0.82	0.77
Netherlands	1.45	1.56	1.29	0.69	0.69	0.59	0.37	0.36	0.27	0.19	0.14	0.13
Nigeria	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.40	1.15	0.77
Pakistan	2.55	2.30	2.30	2.30	2.30	2.30	2.30	2.20	2.00	1.20	1.20	1.02
Peru	2.00	2.00	2.00	1.50	1.40	1.30	1.30	1.23	1.00	0.85	0.66	0.50
Philippines	1.98	1.92	1.85	1.68	1.68	1.34	1.23	1.00	1.00	0.72	0.57	0.38
Poland	1.50	1.50	1.35	1.30	1.25	1.20	1.15	0.95	0.70	0.55	0.38	0.38
Russia	3.00	3.00	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
Saudia Arabia	2.36	2.36	2.20	2.20	2.20	2.20	2.20	2.20	2.03	1.73	1.37	0.28
Sierra Leone	3.00	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Singapore	1.10	1.20	0.97	0.85	0.86	0.92	0.92	0.90	0.85	0.52	0.30	0.30
South Africa	2.00	2.00	1.80	1.80	1.50	1.20	1.20	1.00	1.00	0.80	0.70	0.60
Spain <u>24/</u>	2.10	2.28	2.15	2.06	1.80	1.78	1.44	0.64	0.48	0.26	0.27	0.26
Switzerland	1.47	1.59	1.16	1.11	0.84	0.91	0.52	0.51	0.34	0.28	0.27	0.26
Taiwan	1.90	1.80	1.60	1.40	1.20	1.20	1.20	1.20	1.14	0.45	0.30	0.30
Thailand	2.30	2.30	2.00	1.75	1.60	1.60	1.55	1.50	1.20	0.90	0.60	0.48
Turkey	2.00	2.00	2.00	1.93	1.66	1.78	1.63	1.16	0.82	0.76	0.66	0.51
United Kingdom <u>24/</u>	1.06	1.06	0.97	0.74	0.61	0.49	0.37	0.36	0.20	0.21	0.21	0.21
Viet Nam	n.a.	n.a.	n.a.	2.30	2.30	2.30	2.30	2.30	2.30	2.30	1.58	1.29
Fisher Ideal Rate Index	88.9	78.7	73.1	65.5	60.5	53.1	47.3	41.3	34.1	28.9	23.1	21.3
% changes from prior rate	-1.8%	-11.5%	-7.2%	-10.3%	-7.6%	-12.2%	-11.0%	-12.6%	-17.4%	-15.3%	-20.2%	-7.6%
Index without Mexico	87.3	77.3	71.5	63.4	58.2	51.3	45.3	39.2	32.3	26.7	23.1	20.9
% changes from prior rate	-2.0%	-11.5%	-7.5%	-11.2%	-8.2%	-12.0%	-11.7%	-13.5%	-17.7%	-17.2%	-13.5%	-9.8%
Weighted Average Charge Per Minute	\$1.27	\$1.23	\$1.15	\$0.99	\$0.92	\$0.85	\$0.79	\$0.71	\$0.60	\$0.51	\$0.41	\$0.36

See notes at the end of the tables.



**Table 26**  
**Revenues for Facilities-Based and Facilities-Resale**  
**International Message Telephone Service**  
**for Selected Carriers 1/**  
**(In Millions)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
ABS-CBN Telecom North America, Inc.										*	\$6
ACC Global Corp.							\$1	\$2	\$1		
Alascom, Inc.		\$8	\$12	\$15	\$15	\$16	10				
American Samoa Telecomm. Authority			4	4	3	4	3	3	3	2	2
Andrew Telecom, Inc.										1	1
AT&T Corp.	\$5,691	6,360	6,962	7,314	7,482	7,984	8,425	8,559	8,351	7,533	6,755
BellSouth Corporation											8
Cable & Wireless, Inc.			3	4			7	12	14	10	
Communication TeleSys. Int'l./WorldxChange							6	17	123	159	25
DirectNet Telecommunications								1	3	7	10
Esprit Telecom (U.K.), Ltd.							1	7			
GNOROLA Corporation					10	19	20	20	31		
Golden Pages (Jersey) Ltd.								21			
GTE Corporation		23	24	29	26	25	28	27	26	55	51
Harris Corporation					64	*	*	2	2	1	*
IDT Corporation									*	3	23
International Telecommunications Corp.							11				
IT&E Overseas, Inc.			31	35	38	37	39	40	32	26	19
Japan Telecom America, Inc.										1	3
KDD America, Inc.										1	2
KPN-INS, Inc.											16
LC Communications - Int'l. Telecom Inc.											3
Masatepe Communications, U.S.A., L.L.C.										1	1
MCC Communications, Inc.			33								
MCI WorldCom, Inc.	789	1,164	1,487	2,065	2,779	2,952	3,968	3,550	4,243	4,298	5,056
MFS International							1				
Micronesia Telecommunications Corp.			17	18	16	15	16	17	15		
New Global Telecom, Inc.										34	
Pacific Gateway Exchange, Inc.						3	12	34	173	148	60
PCI Communications, Inc.									6		
Primus Telecommunications, Inc.									10	27	241
RSL Communications, Ltd.								21	26	54	107
SBC Telecommunications, Inc.											2
Sprint	383	460	604	786	1,048	1,229	1,289	1,493	1,478	1,421	1,379
Star Telecommunications, Inc.									59	132	140
Startec Global Communications Corp.					2	3	4	7	6	8	75
St. Thomas & San Juan Telephone Co. Inc.				8	9	2					
Telecom New Zealand Limited									2	43	
Telefonica Larga Distancia, Inc.			4	8	11	18	26	19	16	20	19
Teleglobe USA Inc.									3		
TerraLink Communications, Ltd.								2			
TresCom International, Inc.							1	4	10	14	
TRICOM USA, Inc.									7	13	9
TRT/FTC Communications, Inc.	37	27	21	35							
U.S. Long Distance, Inc.							1				
Viatel, Inc.							1	6	32	63	212
Western Union International			14								
World Access (Facilicom Int'l.)								4	75	167	276
World Communications, Inc.			2	10							
WorldCom, Inc. d/b/a LDDS WorldCom				1	1	124	291	364	500		
Total for Carriers Not Shown Above			1			*	1	2	3	2	1
Total for All Carriers	\$6,901	\$8,042	\$9,219	\$10,331	\$11,505	\$12,431	\$14,160	\$14,234	\$15,250	\$14,246	\$14,505
HHI Index <u>26/</u>	6,963	6,497	6,007	5,469	4,897	4,789	4,413	4,354	3,871	3,811	3,502

See notes at the end of the tables.

**Table 27**  
**Shares of Facilities-Based and Facilities-Resale**  
**International Message Telephone Service Revenues**  
**for Selected Carriers 1/**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
ABS-CBN Telecom North America, Inc.							0.0%	0.0%	0.0%	0.0%	0.0%
ACC Global Corp.							0.1%	0.1%			
Alascom, Inc.		0.1%	0.1%	0.1%	0.1%	0.1%	0.1%				
American Samoa Telecomm. Authority			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Andrew Telecom, Inc.										0.0%	0.0%
AT&T Corp.	82.5%	79.1%	75.5%	70.8%	65.0%	64.2%	59.5%	60.1%	54.8%	52.9%	46.6%
Cable & Wireless, Inc.			0.0%	0.0%			0.0%	0.1%	0.1%	0.1%	
Communication TeleSys. Int'l./WorldxChange							0.0%	0.1%	0.8%	1.1%	0.2%
DirectNet Telecommunications								0.0%	0.0%	0.1%	0.1%
Esprit Telecom (U.K.), Ltd.							0.0%	0.1%			
IONOROLA Corporation					0.1%	0.2%	0.1%	0.1%	0.2%		
Golden Pages (Jersey) Ltd.								0.1%			
GTE Corporation		0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.4%	0.4%
Harris Corporation					0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IDT Corporation									0.0%	0.0%	0.2%
IT&E Overseas, Inc.			0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%	0.1%
Japan Telecom America, Inc.										0.0%	0.0%
KDD America, Inc.										0.0%	0.0%
Masatepe Communications, U.S.A., L.L.C.										0.0%	0.0%
MCC Communications, Inc.			0.4%								
MCI WorldCom, Inc.	11.4%	14.5%	16.1%	20.0%	24.2%	23.8%	28.0%	24.9%	27.8%	30.2%	34.9%
MFS International							0.0%				
Micronesia Telecommunications Corp.			0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%		
New Global Telecom, Inc.										0.2%	
Pacific Gateway Exchange, Inc.						0.0%	0.1%	0.2%	1.1%	1.0%	0.4%
PCI Communications, Inc.									0.0%		
Primus Telecommunications, Inc.									0.1%	0.2%	1.7%
RSL Communications, Ltd.								0.1%	0.2%	0.4%	0.7%
SBC Telecommunications, Inc.											0.0%
Sprint	5.5%	5.7%	6.5%	7.6%	9.1%	9.9%	9.1%	10.5%	9.7%	10.0%	9.5%
Star Telecommunications, Inc.									0.4%	0.9%	1.0%
Startec Global Communications Corp.					0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.5%
St. Thomas & San Juan Telephone Co. Inc.				0.1%	0.1%	0.0%					
Telecom New Zealand Limited									0.0%	0.3%	
Telefonica Larga Distancia, Inc.			0.0%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%
Teleglobe USA Inc.									0.0%		
TerraLink Communications, Ltd.								0.0%			
TresCom International, Inc.							0.0%	0.0%	0.1%	0.1%	
TRICOM USA, Inc.									0.0%	0.1%	0.1%
TRT/FTC Communications, Inc.	0.5%	0.3%	0.2%	0.3%							
U.S. Long Distance, Inc.							0.0%				
Viatel, Inc.							0.0%	0.0%	0.2%	0.4%	1.5%
Western Union International			0.2%								
World Access (Facicom Int'l.)								0.0%	0.5%	1.2%	1.9%
World Communications, Inc.			0.0%	0.1%							
WorldCom, Inc. d/b/a LDDS WorldCom				0.0%	0.0%	1.0%	2.1%	2.6%	3.3%		

See notes at the end of the tables.

**Table 28**  
**Share of International Message Telephone Service**  
**Including Pure Resale and End-User Revenues**  
**for Selected Carriers 1/**  
**(In Millions)**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Facilities-Based and Facilities-Resale Service</b>										
<b>Billed Revenues</b>										
AT&T	\$6,360	\$6,962	\$7,314	\$7,482	\$7,985	\$8,425	\$8,559	\$8,351	\$7,533	\$6,755
MCI Worldcom (MCI prior to 1998)	1,175	1,487	2,065	2,779	2,952	3,968	3,550	4,243	4,298	5,056
Sprint	464	604	786	1,048	1,229	1,289	1,493	1,478	1,421	1,379
WorldCom	0	2	10	64	124	291	364	500	--	--
All Other	43	165	156	132	141	187	268	678	994	1,315
<b>Total All Carriers</b>	<b>8,042</b>	<b>9,219</b>	<b>10,331</b>	<b>11,505</b>	<b>12,431</b>	<b>14,160</b>	<b>14,234</b>	<b>15,250</b>	<b>14,246</b>	<b>14,505</b>
<b>Shares of Billed Revenues</b>										
AT&T	79.1%	75.5%	70.8%	65.0%	64.2%	59.5%	60.1%	54.8%	52.9%	46.6%
MCI Worldcom (MCI prior to 1998)	14.6%	16.1%	20.0%	24.2%	23.7%	28.0%	24.9%	27.8%	30.2%	34.9%
Sprint	5.8%	6.5%	7.6%	9.1%	9.9%	9.1%	10.5%	9.7%	10.0%	9.5%
WorldCom	0.0%	0.0%	0.1%	0.6%	1.0%	2.1%	2.6%	3.3%	0.0%	0.0%
All Other	0.5%	1.8%	1.5%	1.1%	1.1%	1.3%	1.9%	4.4%	7.0%	9.1%
HHI Index <u>26/</u>	6,497	6,007	5,469	4,897	4,789	4,413	4,354	3,871	3,811	3,502
<b>Pure Resale Service</b>										
<b>Billed Revenues</b>										
AT&T	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43	\$206	\$254
MCI Worldcom (MCI prior to 1998)	n.a.	65	48	34	56	52	42	39	683	618
Sprint	n.a.	88	63	28	57	68	87	95	89	244
WorldCom	2	7	12	50	214	188	411	301		
All Other	165	280	388	479	793	1,446	3,096	3,633	3,820	3,253
<b>Total All Carriers</b>	<b>167</b>	<b>440</b>	<b>511</b>	<b>591</b>	<b>1,120</b>	<b>1,754</b>	<b>3,636</b>	<b>4,111</b>	<b>4,798</b>	<b>4,369</b>
<b>Shares of Billed Revenues</b>										
AT&T		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	4.3%	5.8%
MCI Worldcom (MCI prior to 1998)		14.8%	9.4%	5.8%	5.0%	3.0%	1.2%	0.9%	14.2%	14.1%
Sprint		20.0%	12.3%	4.8%	5.1%	3.9%	2.4%	2.3%	1.9%	5.6%
WorldCom		1.6%	2.3%	8.5%	19.1%	10.7%	11.3%	7.3%	0.0%	0.0%
All Other		63.5%	75.9%	81.0%	70.8%	82.4%	85.1%	88.4%	79.6%	74.5%
<b>All International Telephone Service</b>										
<b>Billed Revenues</b>										
AT&T	\$6,360	\$6,962	\$7,314	\$7,482	\$7,985	\$8,425	\$8,559	\$8,394	\$7,739	\$7,009
MCI Worldcom (MCI prior to 1998)	1,175	1,552	2,113	2,813	3,008	4,020	3,592	4,282	4,981	5,674
Sprint	464	692	849	1,076	1,285	1,357	1,580	1,573	1,510	1,623
WorldCom	2	9	22	114	338	479	775	801		
All Other	208	444	544	610	934	1,633	3,364	4,311	4,814	4,568
<b>Total All Carriers</b>	<b>8,209</b>	<b>9,660</b>	<b>10,842</b>	<b>12,096</b>	<b>13,551</b>	<b>15,914</b>	<b>17,870</b>	<b>19,361</b>	<b>19,044</b>	<b>18,874</b>
<b>Shares of Billed Revenues</b>										
AT&T	77.5%	72.1%	67.5%	61.9%	58.9%	52.9%	47.9%	43.4%	40.6%	37.1%
MCI Worldcom (MCI prior to 1998)	14.3%	16.1%	19.5%	23.3%	22.2%	25.3%	20.1%	22.1%	26.2%	30.1%
Sprint	5.7%	7.2%	7.8%	8.9%	9.5%	8.5%	8.8%	8.1%	7.9%	8.6%
WorldCom	0.0%	0.1%	0.2%	0.9%	2.5%	3.0%	4.3%	4.1%	0.0%	0.0%
All Other	2.5%	4.6%	5.0%	5.0%	6.9%	10.3%	18.8%	22.3%	25.3%	24.2%
Lower Bound HHI Index <u>26/</u>	6,239	5,504	4,992	4,447	4,061	3,523	2,795	2,452	2,398	2,357
Upper Bound HHI Index <u>26/</u>	6,241	5,511	5,000	4,456	4,077	3,558	2,913	2,617	2,611	2,552
<b>End-User International Telephone Service <u>27/</u></b>										
<b>Largest Carriers Shown Above</b>										
Other Carriers	104	222	272	305	467	816	1,682	2,156	2,407	2,284
<b>Total All Carriers</b>	<b>8,059</b>	<b>9,263</b>	<b>10,382</b>	<b>11,564</b>	<b>12,543</b>	<b>14,335</b>	<b>14,598</b>	<b>15,661</b>	<b>14,726</b>	<b>14,942</b>
<b>Revenue per Minute</b>										
U.S. Billed Minutes	8,030	9,072	10,294	11,513	13,616	15,889	19,325	22,753	24,250	28,363
Underlying Carrier Revenue per Minute	\$1.00	\$1.02	\$1.00	\$1.00	\$0.91	\$0.89	\$0.74	\$0.67	\$0.59	\$0.51
End-User Revenue per Minute	\$1.00	\$1.02	\$1.01	\$1.00	\$0.92	\$0.90	\$0.76	\$0.69	\$0.61	\$0.53

See notes at the end of the tables.

**Table 29**  
**Revenue per Minute Data**  
**for Selected Carriers 1/**  
**(Revenues and Minutes In Millions)**

U.S. Billed Revenues and Minutes	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Annual Growth Rates 1993 to 1999 <u>5/</u>
<b>AT&amp;T</b>												
U.S. Billed Minutes	5,771	6,066	6,596	7,039	7,201	8,040	8,831	9,546	10,331	10,452	10,900	7.1%
U.S. Billed Revenues	\$5,691	\$6,563	\$6,962	\$7,314	\$7,482	\$7,984	\$8,425	\$8,559	\$8,351	\$7,533	\$6,755	
Revenue per Billed Minute	\$0.99	\$1.08	\$1.06	\$1.04	\$1.04	\$0.99	\$0.95	\$0.90	\$0.81	\$0.72	\$0.62	0.1%
Originating + Terminating Minutes	8,867	9,277	10,020	10,741	10,938	11,807	12,778	13,563	14,529	15,113	15,944	
Retained Revenues <u>25/</u>		\$4,036	\$4,279	\$4,814	\$4,979	\$5,229	\$5,634	\$5,705	\$5,786	\$5,332	\$4,921	
Retained Revenue per Minute		\$0.44	\$0.43	\$0.45	\$0.46	\$0.44	\$0.44	\$0.42	\$0.40	\$0.35	\$0.31	
<b>MCI WorldCom</b>												
U.S. Billed Minutes		1,353	1,600	2,101	2,857	3,529	4,486	5,372	5,913	7,195	8,306	19.1%
U.S. Billed Revenues	\$789	\$1,175	\$1,487	\$2,065	\$2,779	\$2,952	\$3,968	\$3,550	\$4,243	\$4,298	\$5,056	
Revenue per Billed Minute		\$0.87	\$0.93	\$0.98	\$0.97	\$0.84	\$0.88	\$0.66	\$0.72	\$0.60	\$0.61	18.0%
Originating + Terminating Minutes		2,098	2,450	3,163	4,175	5,206	6,350	7,496	8,216	10,257	11,396	
Retained Revenues <u>28/</u>		\$753	\$958	\$1,360	\$1,789	\$1,790	\$2,402	\$1,772	\$2,634	\$2,745	\$3,489	
Retained Revenue per Minute		\$0.36	\$0.39	\$0.43	\$0.43	\$0.34	\$0.38	\$0.24	\$0.32	\$0.27	\$0.31	
<b>Sprint</b>												
U.S. Billed Minutes		569	728	946	1,181	1,490	1,772	2,745	2,794	2,916	3,640	20.3%
U.S. Billed Revenues	\$383	\$464	\$604	\$786	\$1,048	\$1,229	\$1,289	\$1,493	\$1,478	\$1,421	\$1,379	
Revenue per Billed Minute		\$0.82	\$0.83	\$0.83	\$0.89	\$0.82	\$0.73	\$0.54	\$0.53	\$0.49	\$0.38	22.5%
Originating + Terminating Minutes		906	1,139	1,424	1,730	2,140	2,480	4,060	4,505	4,795	5,507	
Retained Revenues <u>28/</u>		\$338	\$407	\$520	\$706	\$742	\$741	\$672	\$822	\$922	\$825	
Retained Revenue per Minute		\$0.37	\$0.36	\$0.37	\$0.41	\$0.35	\$0.30	\$0.17	\$0.18	\$0.19	\$0.15	
<b>All Other Carriers</b>												
U.S. Billed Minutes	980	43	147	113	274	556	800	1,662	3,715	3,687	5,518	66.8%
U.S. Billed Revenues	\$43	\$43	\$166	\$166	\$195	\$265	\$478	\$632	\$1,177	\$994	\$1,314	
Revenue per Billed Minute	\$0.04	\$1.01	\$1.13	\$1.48	\$0.71	\$0.48	\$0.60	\$0.38	\$0.32	\$0.27	\$0.24	55.5%
Originating + Terminating Minutes	1,694	90	231	242	457	847	1,333	2,500	4,673	4,283	6,281	
Retained Revenues <u>28/</u>	\$4,378	\$44	\$133	\$111	\$136	\$161	\$166	\$284	\$430	\$383	\$485	
Retained Revenue per Minute	\$2.58	\$0.49	\$0.57	\$0.46	\$0.30	\$0.19	\$0.12	\$0.11	\$0.09	\$0.09	\$0.08	
<b>Total All Carriers</b>												
U.S. Billed Minutes	6,751	8,030	9,072	10,199	11,513	13,615	15,889	19,325	22,753	24,250	28,363	16.3%
U.S. Billed Revenues	\$6,901	\$8,042	\$9,219	\$10,331	\$11,505	\$12,431	\$14,160	\$14,234	\$15,250	\$14,246	\$14,505	
Revenue per Billed Minute	\$1.02	\$1.00	\$1.02	\$1.01	\$1.00	\$0.91	\$0.89	\$0.74	\$0.67	\$0.59	\$0.51	14.8%
Originating + Terminating Minutes	10,561	12,371	13,840	15,569	17,299	20,000	22,939	27,618	31,923	34,448	39,128	
Retained Revenues <u>28/</u>	\$4,378	\$5,171	\$5,777	\$6,805	\$7,609	\$7,923	\$8,944	\$8,433	\$9,672	\$9,383	\$9,720	
Retained Revenue per Minute	\$0.41	\$0.42	\$0.42	\$0.44	\$0.44	\$0.40	\$0.39	\$0.31	\$0.30	\$0.27	\$0.25	
												<b>Change in Share 1993 to 1999</b>
<b>Shares of U.S. Billed Minutes</b>												
AT&T		75.5%	72.7%	69.0%	62.5%	59.1%	55.6%	49.4%	45.4%	43.1%	38.4%	-24.1%
MCI WorldCom		16.8%	17.6%	20.6%	24.8%	25.9%	28.2%	27.8%	26.0%	29.7%	29.3%	4.5%
Sprint		7.1%	8.0%	9.3%	10.3%	10.9%	11.2%	14.2%	12.3%	12.0%	12.8%	2.6%
All Other Carriers		0.5%	1.6%	1.1%	2.4%	4.1%	5.0%	8.6%	16.3%	15.2%	19.5%	17.1%
<b>Shares of Foreign Billed Minutes</b>												
AT&T		74.0%	71.8%	68.9%	64.6%	59.0%	56.0%	48.4%	45.8%	45.7%	46.9%	-17.7%
MCI WorldCom		17.2%	17.8%	19.8%	22.8%	26.3%	26.4%	25.6%	25.1%	30.0%	28.7%	5.9%
Sprint		7.8%	8.6%	8.9%	9.5%	10.2%	10.0%	15.9%	18.7%	18.4%	17.3%	7.9%
All Other Carriers		1.1%	1.8%	2.4%	3.1%	4.6%	7.6%	10.1%	10.4%	5.8%	7.1%	3.9%

See notes at the end of the tables.

## Notes to Tables

**Note:** Some previously published data have been revised. "n.a." signifies data not available. "n.o." signifies service not offered. "\*" signifies an amount greater than 0 but less than a half million.

- 1/ Data through 1990 are as reported in the *Statistics of Communications Common Carriers (SOCC)*, with the following adjustments: 1) telephone traffic for Canada and Mexico have been added for 1980 through 1990 but not for prior years; 2) traffic between the U.S. mainland, Alaska, Hawaii, and Puerto Rico have been removed for 1964 through 1984, but not for prior years. The telephone data through 1990 originated in FCC Form M filings and represent traffic between the domestic United States and off-shore points. Data through 1985 are for AT&T only. Data through 1967 include some transiting traffic. Starting in 1990, the SOCC includes calls between international points and Alaska and Hawaii. The record data for those years (telegraph, telex, and record private line) are based on FCC Form O/R filings. Starting in 1991, data have been taken from the latest version of *Section 43.61 International Telecommunications Data* reports and represent traffic between all U.S. points and all international points, and include a small amount of traffic between domestic U.S. points and offshore U.S. points. Data exclude pure resale traffic unless otherwise noted. Appendix A summarizes changes in data reported over time.
- 2/ Pure resale data through 1990 appear to include revenues for a few very small facilities-based carriers. Starting with 1991, the amounts shown are primarily for pure resale international telephone service, but include very small amounts of other pure resale switched international services. Breakouts are available in the annual *Section 43.61 International Telecommunications Data* reports.
- 3/ The data for total toll revenues for 1950 through 1980 have been taken from Table 4.3 of the latest SOCC, and represent message telephone, WATS, private line, and other toll service revenues (accounts 510 through 516) reported in the annual FCC Form M filings. Starting with 1981, the total toll figures are from IAD's report titled, *Long Distance Market Shares*, and include toll revenues of all local and interexchange carriers.
- 4/ End-user revenues were estimated as revenues from facilities-based, facilities-resale, and ISR service plus 10% of pure resale revenues. Note that data filed on FCC Form 499-S suggest that about half of the service provided by smaller carriers, including those operating as pure resellers, are provided on a carrier's carrier basis.
- 5/ The annual rates of growth were estimated by fitting a log linear regression to data for the years indicated. Growth rates were omitted if not meaningful, which is the case where the year-to-year changes are inconsistent.
- 6/ Country direct, country beyond, and reoriginated traffic were first reported separately in 1995. Amounts shown for prior years are based on staff estimates.
- 7/ Many countries charge for service on the basis of metered pulses, rather than by call minutes as in the United States. The pulses are converted to minutes to facilitate settlements. U.S. carriers report these amounts as foreign billed minutes.
- 8/ U.S. traffic generally exceeds foreign traffic. Since settlement payments are based on traffic, there is usually a net settlement payment by U.S. carriers, shown as a negative amount in the table. Net revenues are the retained revenues from U.S. billed calls plus the settlement amounts from foreign billed calls. Cases in which U.S. carriers report both settlement receipts and settlement payments for transiting calls are where the operating agreements have cascade billing arrangements. In a cascade billing arrangement the U.S. carrier collects from the originating foreign carrier both the transit fee and the settlement amount that the originating foreign carrier will owe to the terminating foreign carrier. The U.S. carrier then makes the settlement payment.
- 9/ Through 1990, data for Canada and Mexico were based on supplemental information provided by carriers and staff estimates. See *Trends in the U.S. International Telecommunications Industry*, September 1999, Appendixes B & C.
- 10/ Estimated minutes of traffic for selected foreign carriers and for the total world were obtained from TeleGeography, Inc. ([www.telegeography.com](http://www.telegeography.com)). Several companies have changed over time due to name changes and mergers. Through 1997, MCI data are shown for MCI WorldCom. Prior to 1997, C&W Communications is Mercury. C&W Hong Kong is HongKong Telecom until 1998. China Telecom is China MPT prior to 1997. Through 1991, Deutsche Telekom is DBP Telecom. Stentor became part of Bell Canada in 1998. Some previous data have been revised.

- 11/ Source: *1999 Year-End Circuit Status Data Report*, International Bureau, December 19, 2000. Carriers have announced several additional transatlantic cable systems: See Table 7 therein for additional information on specific systems and conversion ratios used to calculate the number of 64 Kbps circuits for high-speed digital systems.
- 12/ Data are shown for circuits as planned and represent the capacity planned for the day the cable goes into service. On some older systems, some capacity was not available for technical reasons and some was held in reserve for backup purposes. On some newer systems, capacity can be increased greatly with relatively small incremental investments. For example, the AC-1 system has been upgraded to increase its capacity from 483,840 circuits to 1,693,440 circuits.
- 13/ The annual investment cost per usable circuit is the annual payment rate for the life of the asset that produces a present value equal to the initial investment cost. This calculation assumes a 25 year cable life and a discount rate equal to the average cost of capital for the firm. For purposes of comparison, the discount rate is based on 40% debt at an embedded cost of debt of 9% and 60% equity at a 14% rate of return, with the latter increased to reflect a 37% income tax rate. These assumptions translate to a discount rate of 16.9333%.
- 14/ The investment cost per minute assumes that average activated circuits are used 8 hours per day for 365 days each year and that 50% of circuits are idle (not activated). These assumptions are consistent with current utilization rates but probably overstate the utilization rates for early cable systems. This calculation is intended to illustrate relative costs of new versus old cable capacity. The Gemini and AC-1 systems are designed primarily to handle private line circuits.
- 15/ Through 1990, data for Federal Republic of Germany.
- 16/ Through 1991, data for the USSR. The 1992 figure includes traffic for the former Soviet republics.
- 17/ Latest data from *1999 Year-End Circuit Status Data Report*. Data reflect 4khz or 64 kbps equivalent circuits. Data shown represent activated circuits and exclude idle circuits. The circuit status data report shows idle circuits.
- 18/ Tariff rates do not include taxes or surcharges. In March 1994, AT&T introduced rate schedules specifically for residential and commercial customers. Until then, the same rate schedule applied to residential and commercial calls.
- 19/ Tariff rates for traffic to Canada and Mexico are distance-sensitive. The rates shown for Canada are for 1000-mile calls. A "sum of local rates" pricing scheme is used for service to Mexico. AT&T charges standard domestic rates for the distance to the Mexican border, and then also bills the customer for the amount that the Mexican telephone company charges from the border-crossing to the destination. This table shows total charges to customers for calls from Washington D.C. to Mexico City.
- 20/ Through 1990, rates for West Germany.
- 21/ Rates shown are for service to Moscow.
- 22/ The AT&T "Reach Out World" rates did not offer discounts to all countries for the years shown. AT&T's "TrueWorld (sm) Savings" rates, including "Reach Out World" discounts, are shown for 1993 to 1996. Customers of this plan as well as the "Reach Out-Overseas One Rate" plan must pay a fixed charge of \$3 per month. Until 1997, different rates applied for peak and off-peak rate schedules.
- 23/ The accounting rates shown are for rates available to all carriers for traffic carried during the peak period. The peak period is defined in the accounting rate agreement, and varies by country. In addition to varying by time of day, some accounting rate agreements vary by volume of traffic. Some traffic is settled under alternative accounting rate agreements. See annual *Section 43.61 International Telecommunications Data* reports for detailed descriptions of different traffic arrangements. Accounting rates typically are denominated in dollars, gold francs (G.F.), or Standard Drawing Rights (S.D.R.).
- 24/ Where more than one PTT connects with U.S. carriers, the table shows rates for the first carrier providing service. These include Korea Telecom in Korea, Kokusai Denshin Denwa in Japan, PLDT in the Philippines, CODETEL in the

Dominican Republic, and British Telecom in the United Kingdom.

- 25/ Accounting rates for service between Mexico and the United States vary by service classification and the originating or terminating locations. Each rate shown in the table represents a simple average for all accounting rates in effect for service between the United States and Mexico.
- 26/ The Herschfeld-Herfendahl Index (HHI) value for the market is based on the market shares for each entrant. A lower bound estimate is calculated using the share for the largest entrants only. An upper bound is calculated by imputing the shares of all other carriers to three equal-sized firms.
- 27/ End-user revenues are estimated as the total revenues for facilities-based and facilities-resale service plus 10% of pure resale revenues. The amounts for carriers other than the four largest are estimated as half of their total billed revenues. The amounts for the largest carriers are estimated as the balance of the total. For 1999, these assumptions produce data that are roughly consistent with data filed on FCC Form 499-A.
- 28/ Retained revenues shown for service that originates or terminates in the United States. These figures exclude revenues for calls that transit the United States. Retained revenues are calculated as revenues billed by U.S. carriers, less settlement amounts owed to foreign carriers for U.S. billed traffic, plus settlement amounts due to U.S. carriers for foreign-billed traffic.

## Appendix A: Notes on the Data

Much of the data presented in this report are based on the figures reported in the annual volumes of the *Statistics of Communications Common Carriers (SOCC)*. The *Manual for Filing Section 43.61 Data in accordance with the FCC's Rules and Regulations*, June 1995, provides directions for filing international traffic data. Many significant reporting changes have occurred over the years, and several adjustments have been made to make the time series more consistent. The most significant changes stem from the changing focus of the reporting requirements. Prior to 1990, the FCC collected data for overseas telecommunications. At one time, traffic to Alaska, Hawaii and Puerto Rico was classified as reportable overseas traffic, while traffic to foreign points such as Canada and Mexico was not reported. This classification arose from the fact that carriers used radio facilities for overseas traffic while they used terrestrial cable facilities to serve Canada and Mexico.

Since 1985, Hawaii, Alaska, the conterminous U.S., and Puerto Rico have been considered U.S. domestic points for reporting purposes. Carriers need not report data for traffic between any two domestic U.S. points. Starting in 1991, carriers must report all traffic for offshore U.S. points, such as Guam and Midway, and must include traffic between offshore U.S. points and all other U.S. points. Also in 1991, the FCC started systematically collecting traffic data for service to Canada, Mexico, and Saint Pierre and Miquelon. The current data requirements facilitate better tracking of the effects of settlement payments on the national balance of payments.

Several adjustments were made to published data so that the data presented in the report for recent years approximate totals for all international traffic. Traffic reported to Alaska, Hawaii, and Puerto Rico has been removed from the data presented in this publication for the years 1980 through 1984. AT&T voluntarily provided telephone traffic data for Canada and Mexico for 1978 through 1990. All carriers filed data beginning in 1991. Appendix B and Appendix C of the *Trends in the U.S. International Telecommunications Industry*, September 1999, show the available telephone service traffic data for Canada and Mexico, respectively. Log-linear regression analysis with a dummy trend was used to estimate traffic carried by AT&T's competitors for 1985 through 1990. While very approximate, these estimates were used to construct industry total data shown in the report.

In addition to reclassifying international points, the FCC instituted other reporting changes in 1991. Service categories changed. Pure resale traffic was separated from facilities-based traffic to avoid double counting. The Commission changed the definition of minutes for reporting purposes. For facilities-based service, carriers now report the number of minutes upon which settlements are calculated. They formerly reported billing minutes. The settlement process is used by U.S. and foreign carriers to provide compensation for handling traffic for each other. Compensation is based on conversation minutes. Settlement minutes averaged 5% to 6% less than billed minutes for traffic billed in the United States for 1988 through 1990. Because carriers do not make settlement payments for their pure resale traffic, they continue to report resale data based on billing information.



In 1991, the FCC also changed the traffic categories for reporting purposes. Prior to 1991, carriers reported traffic originating in the United States, terminating in the United States, and transiting the United States. Since 1991, the reporting categories are U.S. billed, foreign billed, and transiting traffic. **U.S. billed** traffic includes all traffic billed by U.S. carriers, and includes most calls that originate in the United States, calls that are placed collect or "caller toll free" to the United States, U.S. carrier "country-beyond" and "country-direct" calls, and U.S. reorigination traffic (definitions below). Prior to 1991, a collect call placed from a U.S. point could have been classified as originating traffic. Because these calls are billed by a carrier serving an international point, such traffic, however, now must be reported as foreign billed calls. **Foreign billed** traffic is all traffic billed by a foreign or correspondent carrier and includes most calls that originate in foreign points as well as collect and "caller toll free" calls placed by U.S. customers to foreign points. Foreign billed calls do not necessarily originate in the country for which the traffic is reported. In some cases, foreign carriers reoriginate traffic for other foreign carriers. U.S. carriers may not know which calls originated in a country and which calls had originated in some third country and then been reoriginated by the foreign carrier that sent the calls to the United States. **Transiting** traffic is traffic that originates from an international point, is billed by a foreign or correspondent carrier, is routed through the U.S., and terminates at an international point. Transiting traffic is reported for the country in which the service is billed. Unlike reorigination traffic, transiting traffic is settled based on the settlement rate between the actual countries of origination and destination. To avoid confusion, this report uses the term "**U.S. traffic**" to refer to traffic originating in the United States through 1990, and traffic billed in the United States thereafter. Similarly, the term "**Foreign traffic**" refers to traffic originating in foreign points through 1990, and traffic billed by foreign carriers thereafter. Prior to 1991, many carriers classified traffic based on billing. Thus, the change in definitions may not have caused any significant changes in the data being reported.

**Reorigination traffic** is billed by a foreign carrier, transits a U.S. carrier's facilities, and terminates in a foreign point. Unlike traditional transiting arrangements, reorigination traffic is not settled pursuant to an accounting rate agreement between the originating and terminating carriers. Reorigination allows the foreign carrier to take advantage of the U.S. carrier's accounting rate agreement with the carrier in the terminating country. The U.S. carrier treats reorigination traffic like U.S. billed traffic when it settles with the carrier in the country of termination and reports this traffic as U.S. billed traffic for filing purposes.

During 1995, the Commission adopted a revised Section 43.61 international traffic data reporting manual. Beginning with the 1995 data filings, carriers were required to provide separate switched service and private line data for facilities-based and facilities-resale services. Carriers also separately identified U.S. billed traffic originated in a foreign point via country-direct and country-beyond type services. **Country-direct and country-beyond services** are U.S. carriers' offerings that allow customers in foreign locations to route calls through U.S. carriers' facilities to reach the United States (country-direct) or any world point (country-beyond). Country-direct and country-beyond services rely on alternative billing arrangements, such as credit cards, and enable the customer in a foreign point to be served by a U.S. carrier rather than by a foreign carrier. Note that U.S. carriers or their affiliates may operate in foreign countries as foreign carriers. They do not report

43.61 traffic on calls that they carry from one foreign country to another unless they carry this traffic through a United States point. Finally, the revised manual clarified the treatment of discounts for reporting purposes.

Beginning with the 1997 data filings, carriers were required to separate switched services data by the financial arrangements made with carriers in foreign countries for terminating that traffic. Carriers now classify traffic as traditional settlement with proportionate return, international simple resale including traffic hubbed through an intermediate foreign country, and alternative settlement arrangements approved under Section 64.1002 of the Commission's rules. These arrangements are discussed below. Carriers continue to separately report facilities-based and facilities-resale private line services.

As explained above, carriers separately report international switched telephone, and miscellaneous services based on the financial termination arrangements. **Traditional Settlement** traffic is settled according to the Commission's International Settlements Policy (ISP). (See 47 C.F.R. Sections 43.51(e) & 64.1001.) The settlement is based on the accounting rate, which is part of a compensation agreement negotiated between a U.S. carrier and its foreign correspondent on a particular international route. The ISP requires nondiscriminatory accounting rates among U.S. carriers on a given route and that the U.S. carriers and its foreign correspondent share the accounting rate on a 50/50 basis. The ISP also requires that the U.S. carrier agrees to accept no more than its proportionate share of return traffic from the foreign carrier.

**ISR/Hubbed** traffic is switched traffic that is routed and settled by the U.S. carrier outside the traditional settlement process and that may be carried over private lines that are interconnected to the public switched network on one or both ends of the private line. The Commission allows carriers to use ISR as a means to route U.S.-inbound traffic between the United States and a limited number of approved countries. In many cases, U.S. carriers exchange traffic with a carrier in an approved country and that carrier "hubs" the call, i.e. terminates the call in or from a third country under a traditional settlement agreement. See 47 C.F.R. Sec. 63.17.

**Alternative Settlement traffic** is settled under Commission approved agreements that may deviate from the ISP pursuant to Section 64.1002 of the rules. See 47 C.F.R. Sec. 64.1002. These are also referred to as "flexible-settlement" agreements.

Figure A-1 summarizes changes in reporting definitions over time. These changes may account for some of the year-to-year changes in the reported data. In addition, the data may contain reporting errors. For example, the 1987 SOCC contains inaccurate data for traffic to the United Kingdom because AT&T's Section 43.61 filing omitted foreign traffic for November and December. Corrected figures have been used herein. The FCC's reporting requirements incorporate a threshold below which corrections need not be made. In addition, the complexity of the settlement process guarantees that some errors are only discovered or correctable after the carriers file their final Section 43.61 report for the year. While the data cannot be used to calculate precise year-to-year changes, the data provide a good indicator of industry trends. To compensate for changes in reporting over time, this

report uses regression analysis to calculate growth rates. This ensures that data from the whole period, rather than just the end points, are considered in estimating trend growth rates. In addition, regression analysis permits the data to be divided into periods to evaluate whether trends have changed over time.

Complete technical information on current reporting requirements are contained in the *Manual for Filing Section 43.61 Data in accordance with the FCC's Rules and Regulations*, June 1995. Additional information on 1999 data is contained in the *Section 43.61 International Telecommunications Data* report for 1999.

**Figure A-1**

Reporting and Definition Changes Affecting SOCC International Traffic Statistics	
1.	The treatment of Hawaii and Puerto Rico traffic changed over time. Prior to 1985, Hawaii and Puerto Rico were classified as overseas points. Generally, traffic between the continental U.S. and Hawaii and Puerto Rico were included in SOCC tables through 1984. Where possible, these amounts have been removed from tables.
2.	The treatment of Alaska traffic changed over time. Alaska traffic was included for some years before 1968, and for 1981 through 1984. Where possible, Alaska data for 1981 through 1984 have been removed from the tables.
3.	Starting in 1991, the international tables include traffic for all domestic U.S. points, including Alaska, Hawaii, and Puerto Rico. (International traffic for offshore U.S. points is contained in the <i>Section 43.61 International Telecommunications Data</i> report.)
4.	Carriers did not report data for Saint Pierre and Miquelon, Canada or Mexico for 1968 through 1990. The 1980 through 1990 SOCC data presented in Table 1 and Table 2 have been adjusted to include estimates for telephone traffic with Canada and Mexico.
5.	U.S. traffic with the U.S. Virgin Islands was included in the international tables for 1980 through 1984, and then excluded for 1985 through 1990. U.S. traffic to other offshore U.S. points, such as Guam and Wake Island, was included for 1980 through 1985, and then excluded from the country-by-country table for 1986 through 1990. Beginning with 1991, the traffic with non-domestic offshore U.S. points has been included in the statistical tables. Such traffic currently represents less than 1% of all international traffic for the United States.
6.	Maritime traffic was not explicitly included in some years through 1990. Starting in 1991, the SOCC tables include maritime traffic.

7.	Before divestiture, interexchange carriers such as MCI and Sprint did not provide international telephone services. Through 1984, the tables containing country-by-country international telephone traffic represented AT&T only.
8.	Prior to 1991, some switched service revenues, such as telephone service from offshore U.S. points, was classified as miscellaneous. In addition, some minor services, such as packet switching, were reported as miscellaneous. Carriers, however, were not required to report any data for some minor services.
9.	From 1985 through 1990, switched services data included both facilities-based and pure resale service. Starting in 1991, carriers must separate international facilities-based traffic from international pure resale traffic. Starting in 1995, carriers must also separate private line circuits offered over resold circuits (facilities-resale) from those offered over the carriers own circuits (facilities-based).
10.	Through 1984, carriers reported transiting traffic both by points of origin and destination. Thus, each transiting call would be counted twice.
11.	Through 1990, carriers were instructed to categorize traffic data by point of origin. Starting in 1991, carriers are instructed to categorize traffic based on where each call is billed. This may not represent a significant change, because many carriers reported traffic based on billing prior to 1991. In this report, the term "U.S. traffic" refers to traffic reported as originating in the U.S. through 1990, and traffic reported as billed in the U.S. thereafter. Similarly, the term "foreign traffic" refers to traffic reported as originating in foreign points through 1990, and traffic reported as billed to foreign points thereafter.
12.	Through 1990, carriers were instructed to report the number of billing minutes or billing words. Starting in 1991, facilities-based carriers report the number of minutes or words used for settlement purposes. Pure resale carriers continue to report the number of minutes used for billing purposes.
13.	Starting with 1995 filings, carriers were required to separate facilities-based data from facilities-resale data for switched services. This distinction was intended to separate International Simple Resale (ISR) traffic from settled traffic. In 1996, the Commission allowed carriers to offer ISR traffic using their own facilities. As a result, the Commission dropped the facilities-based / facilities-resale distinction for switched services in 1997, and instead required that carriers separate traffic by settlement arrangement: Traffic settled under traditional settlement with proportionate return arrangement; under international simple resale (ISR) including traffic hubbed through an intermediate foreign country arrangement; and, under an alternative settlement arrangement.
14.	Starting with 1995 filings, carriers were required to separate country-direct, country-beyond, hubbing and reorigination traffic from other types of traffic in non-public filings.

Both the Bureau of Economic Analysis (BEA), U.S. Department of Commerce and the Federal Communications Commission (FCC) collect data on settlement payments and receipts. The FCC figures are used to monitor U.S. carriers, while the BEA data are used to monitor the balance of payments. As a result, there are significant differences in the reporting requirements imposed by these agencies.

In recent years, the Section 43.61 reports have shown greater U.S. carrier payments to foreign entities than do the BEA estimates. The BEA figures, however, show greater U.S. carrier receipts. It is not clear whether reporting differences explain most or all of the differences in reported data. Some factors would tend to make the FCC figures higher. For example, carrier's settlement receipts and payments lag the date when traffic is actually provided. The FCC requests payments and receipts when accrued -- that is, at the time service was provided. The BEA requests that carriers file actual payments and receipts made during the calendar year. Because settlement payments are often made long after the calls were made, and because traffic has been growing rapidly, the settlements owed during a year tend to be greater than the settlements made during the year. This means that carriers would tend to report higher settlement receipts and payments in their Section 43.61 annual reports than in their BEA annual reports. Also, Section 43.61 reports include settlement payments between U.S. carriers and their foreign affiliates. The BEA statistics exclude such payments. Other reporting differences, however, would tend to make the BEA figures higher. For example, the carrier reports to BEA include inter-carrier payments for private line, enhanced service, and support service receipts. U.S. carrier payments to Intelsat are also included. All of these types of payments would not be included in Section 43.61 reports. In 1996, the last benchmark survey, enhanced services represented less than 1% of settlement receipts and payments.

The timing differences explained above and the fact that the BEA excludes payments to affiliates may be responsible for this difference. The BEA figures, however, include some payments, such as payments to Intelsat, which should offset some or all of the difference. The data differences are summarized in Figure A-2 below:

**Figure A-2**

<b>Differences Between Section 43.61 Data and BEA International Data</b>	
<b>Section 43.61 International Traffic Data</b>	<b>BEA Telecommunications Payments and Receipts</b>
Messages, minutes, billed revenues, and settlement payments and receipts.	Settlement payments and receipts.
Covers basic telecommunications services (telephone, telex, telegraph, private line, and miscellaneous).	Covers basic telecommunications services, enhanced or value added services, and telecommunications support services (such as maintaining earth stations located in foreign points).

Includes payments between U.S. carriers and their foreign affiliates.	Excludes payments between U.S. carriers and their foreign affiliates, although these can be estimated from other data filed with BEA.
Carriers are asked to report payments and receipts when accrued – that is, at the time service was provided, regardless of when the settlements were actually made.	Carriers are asked to file settlement payments and receipts actually made during the year, regardless of whether or not the service was provided during the year.
Includes payments and receipts for traffic that transits a U.S. point, but excludes receipts or payments for exclusively foreign services such as circuit capacity provided to foreign carriers.	Includes payments and receipts for traffic that transits U.S. points and also payments and receipts for foreign services.
U.S. carriers report the private line revenues billed on their behalf as revenues, rather than as settlement receipts. They do not report the revenues that they bill on behalf of foreign carriers as either revenues or settlement payments.	U.S. carriers report both the private line revenues they bill on behalf of foreign carriers and payments to Intelsat as payments. They report private line revenues billed on their behalf by foreign carriers as settlement receipts.
U.S. carriers report their billings to foreign addresses as U.S. billed revenues.	Carriers are asked to report their billings to foreign addresses as settlement receipts.
All carriers with revenues in the reporting year are required to file preliminary data on the following July 31 and final traffic data on October 31.	All carriers with payments or receipts greater than \$500,000 are required to file data on March 31 of the following year for publication in June. Revisions are typically made the following June.

## Appendix B: Sources of Additional Data

This report can be downloaded from the **FCC-State Link** Internet site at <http://www.fcc.gov/ccb/stats>. The **FCC-State Link** also contains information on the domestic telecommunications industry.

Printed copies of statistical reports are available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street S.W., Washington, D.C., 20554, (202) 418-0270. Copies may also be obtained from the Commission's duplicating contractor, International Transcription Services, Inc. (ITS), (202) 857-3800.

Additional information on accounting rates, settlement payments, international circuit capacity, and international policies can be obtained from the FCC's International Bureau (202) 418-1460 and on the Internet site at <http://www.fcc.gov/ib>. A comparison of accounting rates for U.S., United Kingdom, and New Zealand carriers is provided at <http://www.fcc.gov/ib/td/pf/ukrates.html>. Country-by-country U.S. IMTS Net Settlement Payments, 1985-1999 are now available at <http://www.fcc.gov/ib/td/pf/nsp.xls>.

Information from the Bureau of Economic Analysis, (202) 606-9700, can be found on the Internet at <http://www.bea.doc.gov>.

Information from the United States Census Bureau, (301) 457-4100, can be found on the Internet at <http://www.census.gov>.

Additional information on consumer price indexes can be obtained from the U.S. Department of Labor, Bureau of Labor Statistics, (202) 606-7102, and at <http://stats.bls.gov>.

Some information on telecommunications in foreign countries is available from the International Telecommunications Union, 41-22-730-6111 or at <http://www.itu.int/>, and also from the Organization for Economic Co-operation and Development, 33-145-24-8200 or at <http://www.oecdnews.org/>. Additional information on Global Telecommunications Traffic Statistics can be obtained from TeleGeography, (202) 467-0017, and at <http://www.telegeography.com>.