



INTERNATIONAL BUREAU

REPORT

Trends in the International Telecommunications Industry

September 2005

Strategic Analysis and Negotiations Division
Multilateral Negotiations and Industry Analysis Branch
International Bureau

Federal Communications Commission
Washington, DC 20554

This report was prepared by Linda Blake of the International Bureau's
Strategic Analysis & Negotiations Division.

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Trends in the International Telecommunications Industry

Table of Contents

Figures

- Figure 1: International Percentage of Total Toll
Figure 2: International Service End-User Revenues
Figure 3: Shares of Billed Revenues by Type of International Telephone Service
Figure 4: U.S. Billed Minutes by Destination: 2003
Figure 5: Growth in U.S. Billed and Foreign Billed Minutes of Calling
Figure 6: Growth in Minutes Compared with Decline in Prices
Figure 7: Facilities-Based and Facilities-Resale International Message Telephone Service Revenues
Figure 8: Per-Minute Settlement Payouts for US Billed and Per-Minute Settlement Receipts for Foreign Billed International Minutes
Figure 9: Billed Revenue per Minute Compared with Retained Revenue per Minute
Figure 10: Net Settlement Payouts
Figure 11: Investment Cost per Circuit for Trans-Atlantic Submarine Cable
Figure 12: 64 Kbps Equivalent International Circuits by Type of Circuit
Figure 13: Voice Equivalent International Circuits by Use of Circuit
Figure 14: Average Revenue per Voice Equivalent Circuit

Tables

Long-Term Trends in the International Market

- Table 1: International and Domestic Toll Service Revenues
Table 2: International Telephone Service Per-Minute Data
Table 3: Selected Traffic Statistics for International Telephone Service
Table 4: International Telephone Service Minutes of Traffic Originating in the United States Compared with Traffic Originating in Other Countries
Table 5: Cost of Selected Submarine Cable Systems

Traffic and Circuit Data for Selected International Points

- Table 6: U.S. Billed Minutes of International Telephone Service
Table 7: Foreign Billed Minutes of International Telephone Service
Table 8: U.S. Billed Revenues for International Telephone Service
Table 9: U.S. Billed Revenues per Minute for International Telephone Service
Table 10: Net Settlement Payouts for International Telephone Service
Table 11: Submarine and Terrestrial Circuits in Service
Table 12: Satellite Circuits in Service
Table 13: Circuits Used for International Telephone Service
Table 14: U.S. Billed Revenues for International Private Line Service

Traffic for Regions of the World

- Table 15: U.S. Billed Minutes of International Telephone Service
Table 16: Foreign Billed Minutes of International Telephone Service
Table 17: U.S. Billed Revenues for International Telephone Service

Trends in the International Telecommunications Industry

Table of Contents -- Continued

Table 18: Average U.S. Billed Revenue per Minute for International Telephone Service

Table 19: U.S. Billed Revenues for International Private Line Service

Rate Information for Selected International Points

Table 20: Selected Prepaid Calling Card Rates for 7-Minute Calls

Table 21: Private Line Revenue per 64 Kbps Equivalent Circuit

Table 22: Accounting Rates for Peak-Period International Telephone Service Calls

Table 23: Dollar Equivalent Accounting Rates for Peak-Period International Telephone Service Calls

Traffic Information for Selected Carriers

Table 24: Revenues for Facilities-Based and Facilities-Resale International Message Telephone Service

Table 25: Shares of Facilities-Based and Facilities-Resale International Message Telephone Service Revenues

Table 26: Shares of International Message Telephone Service Including Pure Resale and End-User Revenues

Table 27: Revenue per Minute Data

Appendices

Appendix A: Notes to Tables

Appendix B: Sources of International Traffic Data

Appendix C: Data Collection Definitions and History

Trends in the International Telecommunications Industry

This report traces the development of the international telecommunications industry from 1950 to the present. 1/ 2/

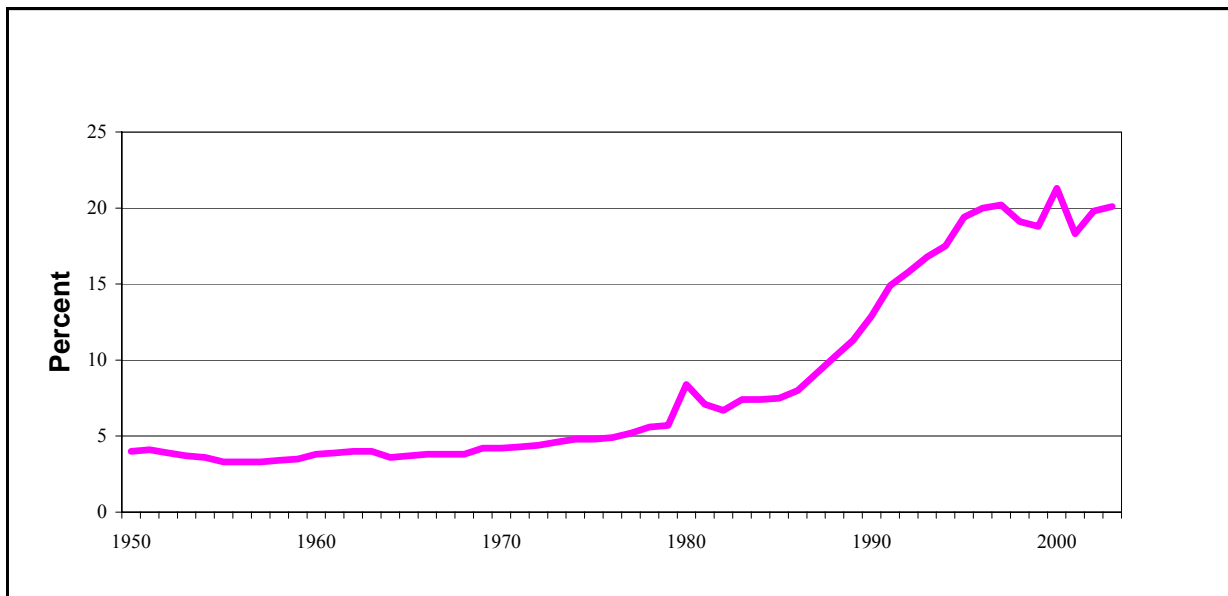
- Tables 1 through 5 present an overview of economic trends in the industry. Tables 6 through 14 provide detailed data for 40 countries.
- Tables 15 through 19 provide detailed traffic data by region of the world. Tables 20 through 23 provide price and accounting rate information for the same 40 countries. Table 21 shows price per circuit for selected regions of the world.
- Tables 24 through 27 provide traffic information for selected carriers.

The following points highlight statistical trends gleaned from the tables and discuss trends in international telecommunications.

International Portion of Total Long Distance:

- From 1950 to 1975, international service represented between 3% and 5% of the revenues U.S. carriers received from providing all long distance services. With the installation of higher capacity and lower cost submarine cables in the 1970s, international service revenues grew in importance. International service has represented about 20% of overall toll revenues since the mid-1990s. See Figure 1 and Table 1.

Figure 1
International Percentage of Total Toll 3/

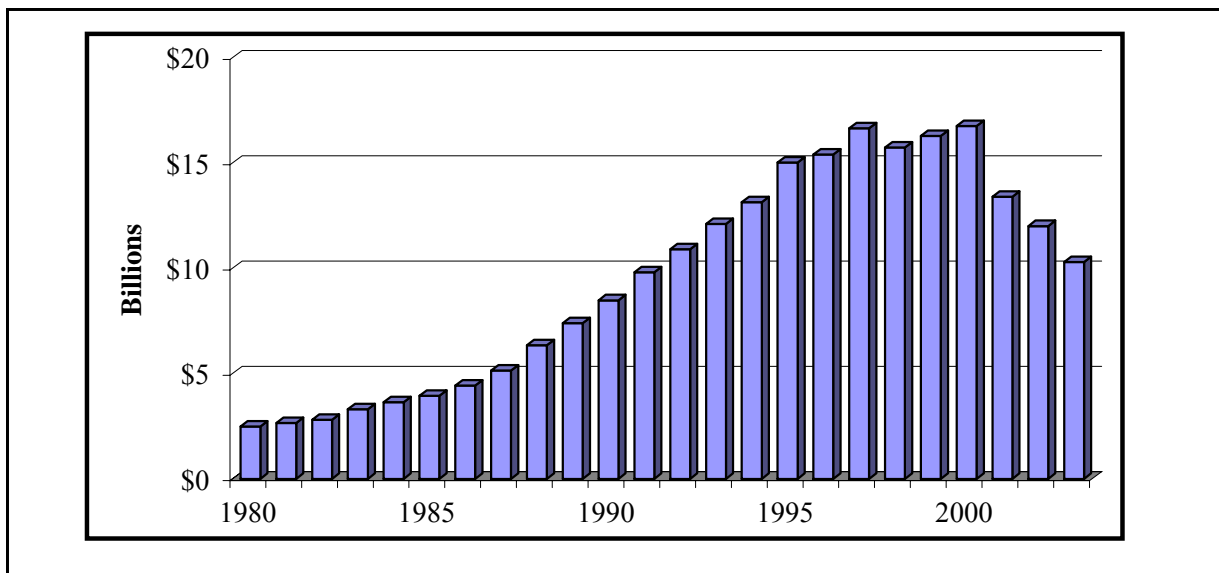


1/ The previous edition of this report, with traffic data through 2002, was released in July 2004.

2/ 47 C.F.R. § 43.61. The Commission, in April 2004, proposed modifications to the Sections 43.61 and 43.82 international data collection rules. See *Reporting Requirements for U.S. Providers of International Telecommunications Services; Amendment of Part 43 of the Commission's Rules*, IB Docket 04-112, Notice of Proposed Rulemaking, 19 FCC Rcd 6460 (2004).

3/ International revenues include traffic to Canada and Mexico starting in 1980. See also Table 31 and Appendix A - Note 21 for year 2000 reported international revenue data.

Figure 2
International Service End-User Revenues



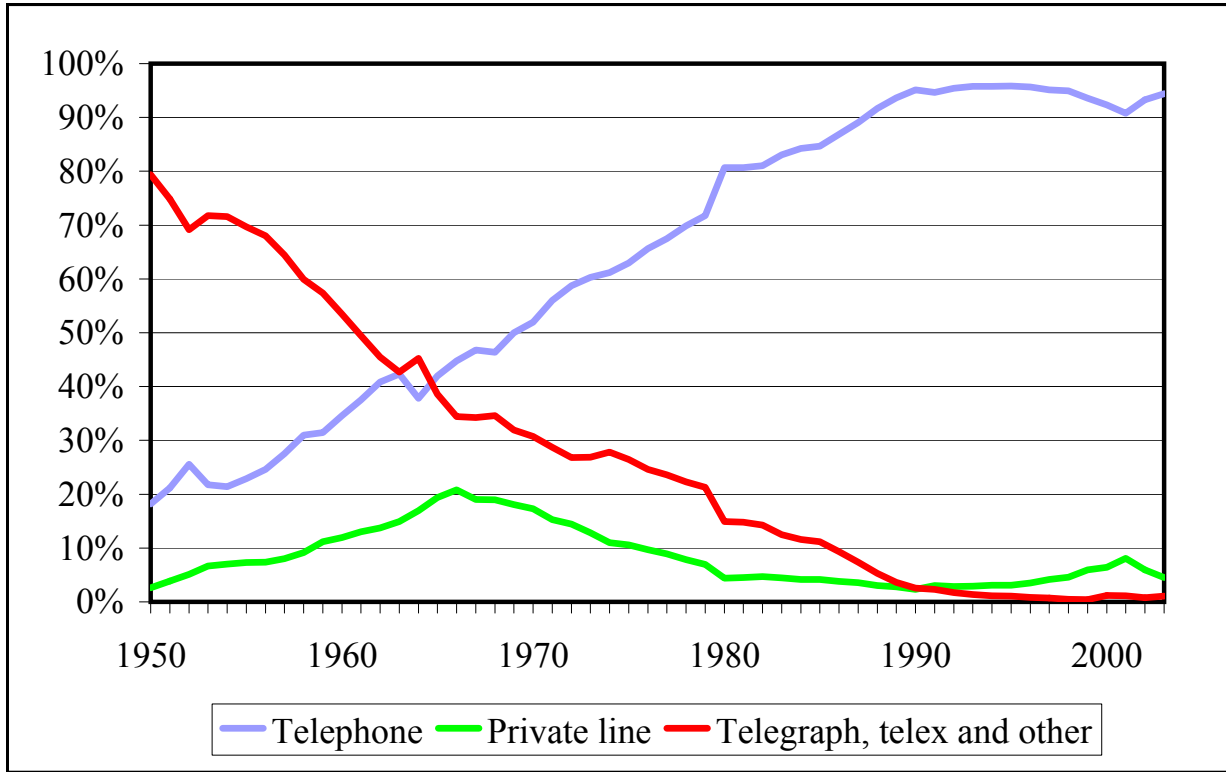
- End-user revenues (estimated as the total revenues for facilities-based and facilities-resale traditional and International Simple Resale (ISR)/Hubbed service plus 10% of pure resale revenues) for international services grew rapidly through 1997. Billings leveled off for the last part of the 1990s. International end-user revenues declined 39% from \$16.8 billion in 2000 to \$10.3 billion in 2003. See Figure 2 and Table 1.

International Telephone, Telegraph, Telex, Private Line and Internet Services:

- In 1950, telegraph service accounted for 80% of international service revenues. The first commercial trans-atlantic telephone cable was installed in 1956. Prior to that, telephone service relied on radio transmissions. Telephone cable capacity grew as new cables were introduced. Prices for international services declined as lower cost facilities were introduced. Today, telephone service accounts for 94% of billed international carrier service revenues. Telegraph and telex services began declining in the 1980s and are now so small that carriers have been granted waivers to the Commission's data filing requirements.

Note that backbone Internet traffic is not provided as a common carrier service and therefore, Internet revenues from backbone Internet service providers are not included in carrier revenue data. However, backbone Internet service providers often use international circuits provided by common carriers that are not their affiliates. In such cases, the underlying carrier reports the associated revenues for those circuits as part of its common carrier's private line revenues. See Figures 3 and 14, and Table 1.

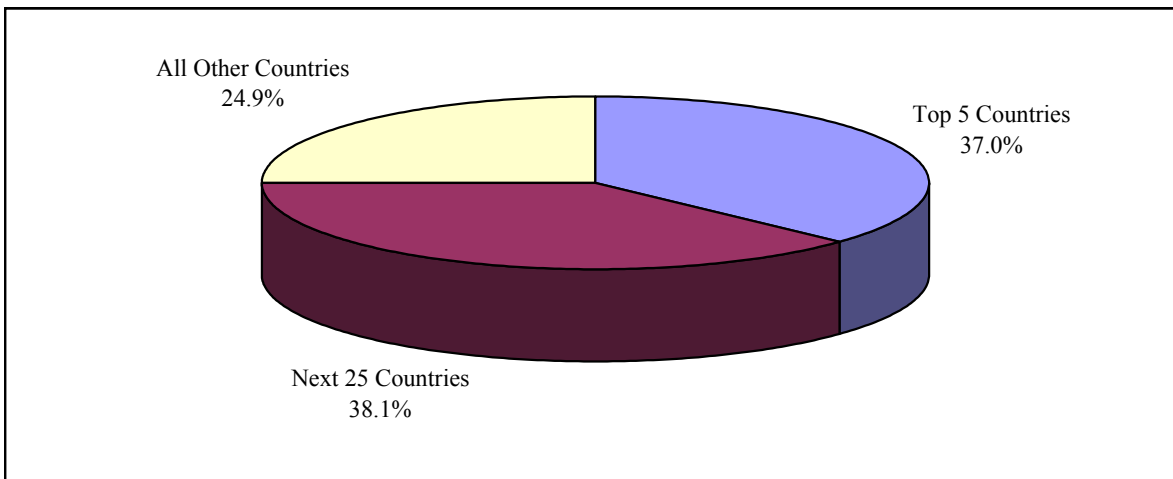
Figure 3
 Shares of Billed Revenues by Type of International Service ^{4/}



Traffic Flows:

- Most calls billed in the United States are terminated to a handful of foreign countries. In 2003, the five most heavily used routes, Canada, Germany, Mexico, Philippines, and United Kingdom, accounted for 37% of U.S. billed minutes. See Figure 4 and Table 6.

Figure 4
 U.S. Billed Minutes by Destination: 2003



^{4/} Billed revenues are equal to the amounts that carriers billed to customers for service.

- In 2003, five countries -- Canada, Germany, Japan, Mexico, and the United Kingdom -- accounted for 61% of total international traffic that terminated in the United States (i.e., traffic reported as being foreign billed). See Table 7.
- North and Central America and Western Europe terminated 31.6% and 20.4%, respectively, of total international traffic billed in the United States. Similarly, 71% of the traffic terminating in the United States came from these two regions. See Tables 15 and 16.
- Relatively little information is available concerning the use of international telephone service in other countries. Table 4 shows foreign carrier data taken from *TeleGeography*, a report published by PriMetrica, Inc. Over the last 5 years, traffic originating with foreign carriers has grown more rapidly than traffic reported by U.S. carriers. See Table 4 and Footnotes 11 and 12.

Telephone Service Rate Schedules and Prepaid Card Rates:

- Customers who make frequent international calls enjoy significant savings by using special calling plans, prepaid calling cards and other means of avoiding basic schedule rates. In the past 10 years, there have been significant increases in basic schedule rates. Customers who do not enroll in discounted calling plans, purchase prepaid calling cards or find other international calling alternatives, pay these rates.
- Table 20 shows international call charges for a selection of prepaid cards. According to the Bureau of Labor Statistics Consumer Expenditure Survey, consumers purchase \$2 billion to \$3 billion of prepaid cards each year. A significant portion of residential calls to foreign countries are placed using these cards. Table 20 illustrates that some prepaid cards -- cards that are sold primarily for domestic calling -- do not have especially low international rates. However, even for the most expensive cards, the international rates are far lower than basic schedule rates for direct dial calls. Many prepaid card providers sell cards that are customized for international calling generally, for a particular region of the world, or even for specific countries. Table 20 shows some cards that offer rates significantly lower than some calling plan rates.
- Many customers place international calls only to one country. The last column in Table 20 shows the best rate for each country selected from the prepaid cards represented in the table. The highest rate is for calls to Vietnam. Note that, in 2005, the least expensive prepaid card for Vietnam had a seven-minute call rate of \$1.76. See Table 20. 5/

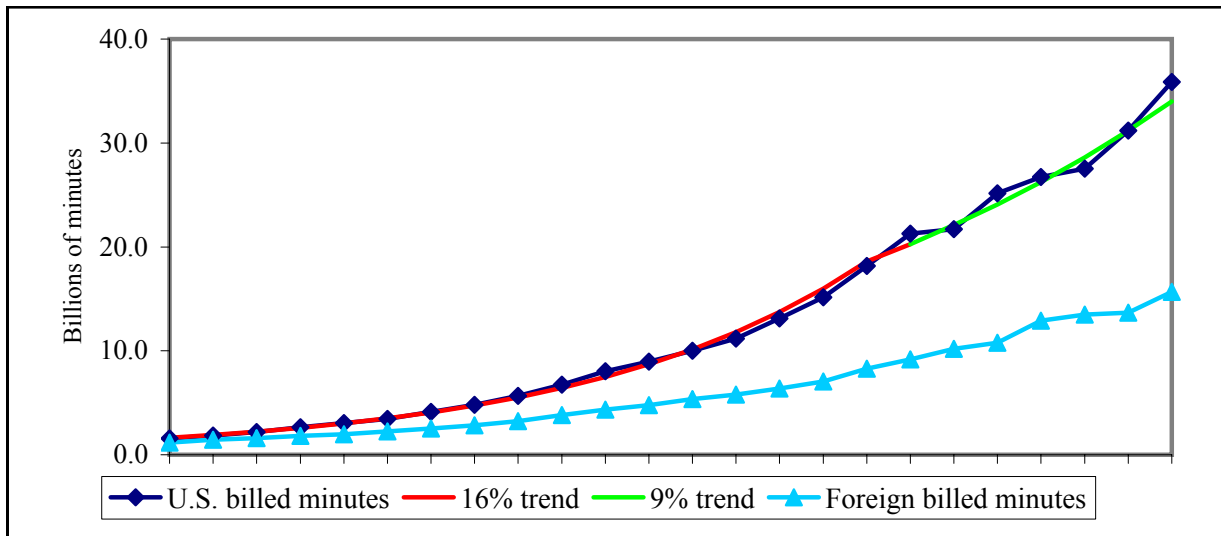
5/ In addition to the information provided herein, the FCC's Consumer & Governmental Affairs Bureau also suggests several best ways to save money when making international calls. See the Consumer Facts - International Long Distance Calling sheet located @ <http://www.fcc.gov/cgb/consumerfacts/hello.html>.

Minutes and Revenues per Minute:

- U.S. carriers began to provide telephone service to Europe in the 1930s. Calls were carried by radio transmission and were relatively expensive. Nonetheless, traffic grew rapidly for a number of reasons. The number of telephones in both the United States and in foreign countries grew rapidly after World War II. Undersea telephone cables were developed and succeeding cables increased capacity and lowered cost. Increased international telephone traffic in the United States is attributed to such factors as increased international trade and rapid growth in the number of immigrants. In the 1980s, U.S. carriers began to offer Country Direct and Country Beyond services that allow their customers to use their services while traveling to foreign points. (These services are described in Appendix C.) In the 1990s, U.S. carriers also began offering reorigination service, a type of transiting service that increased the amount of U.S. billed calls reported by U.S. carriers. These new services accounted for 16% of U.S. billed minutes in 2003. See Table 3 and Appendix C.
- U.S. billed minutes (excluding Country Direct, Country Beyond, and reoriginating calls) have grown by almost 10% per year since 1998. The growth rate from 1980 to 1997 was 16%. Many factors may explain slowing growth rates. At one time, facsimile calls represented a large portion of traffic to some countries, particularly points whose time zones are offset from U.S. time zones by many hours. Email and the use of web pages have greatly reduced the amount of facsimile traffic. In addition, many service providers now use Internet Protocol (IP) platforms and much IP traffic is not included in the Commission's statistics. See Figure 5 and Table 3. Data from 1980 through 1992 is available in the spreadsheet version of the table.

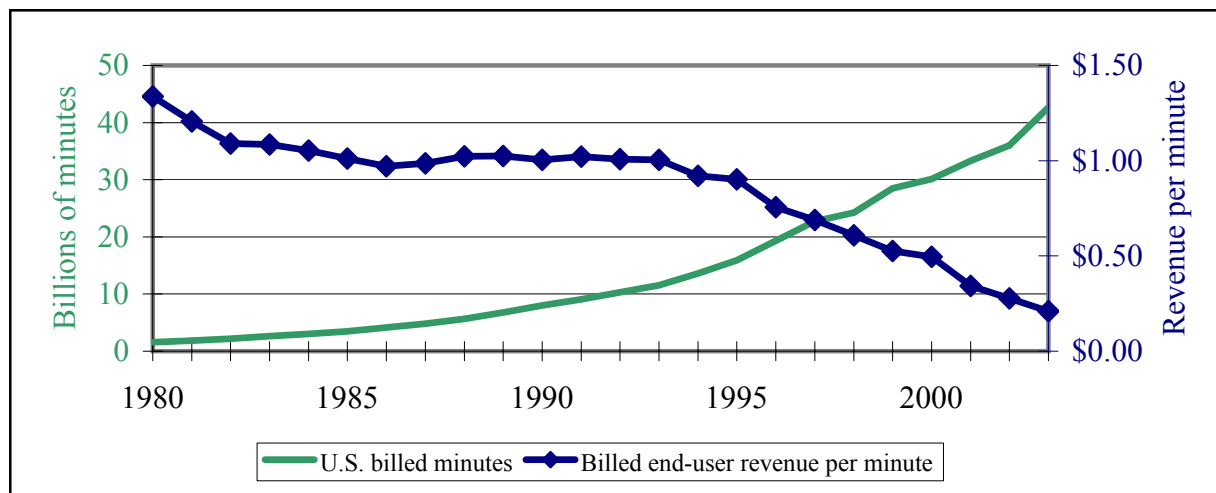
Figure 5

Growth in U.S. Billed and Foreign Billed Minutes of Calling



- The average revenue billed to end users for a minute of international telephone service declined over 84% from \$1.34 in 1980 to \$0.21 in 2003. The number of U.S. billed minutes increased from 1.6 billion to 42.7 billion during the same period. Note that the 42.7 billion is the number of minutes reported by facilities-based and facilities-resale carriers and represents all traffic physically handled by U.S. carriers. It includes Country Beyond and reorigination service minutes. The end-user revenue estimate incorporates markups by resellers. See Figure 6, Table 2 and Table 3.

Figure 6
Growth in Minutes Compared with Decline in Prices

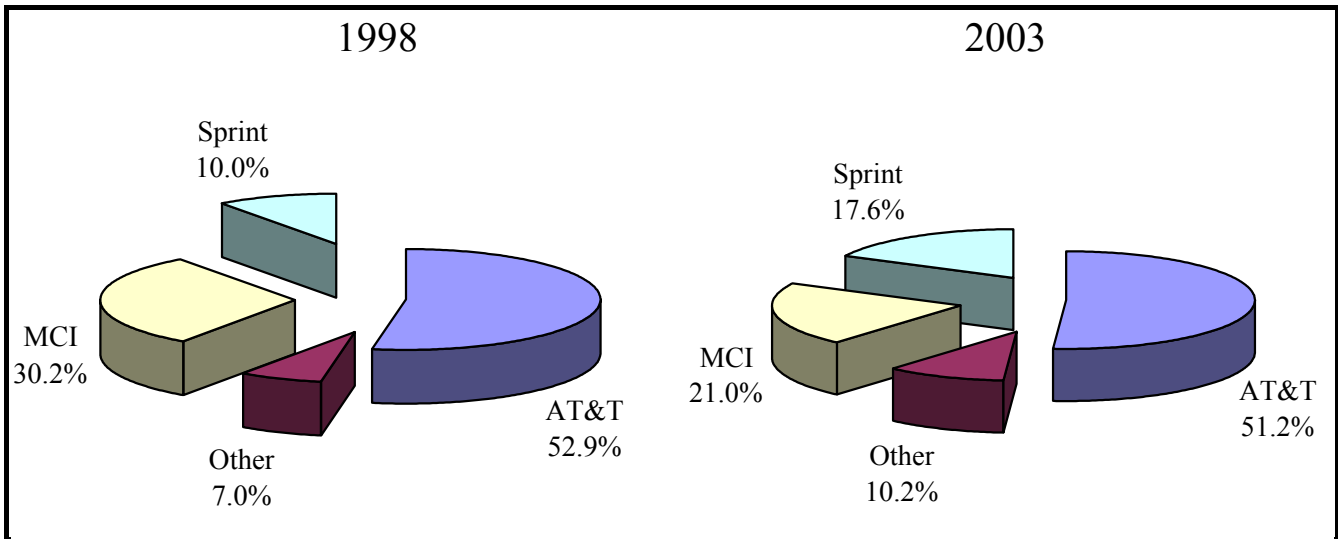


- Over the past five years, prices for calls to each of the 40 countries tracked in the tables have declined. From 1998 to 2003, U.S. billed revenue per minute declined by more than 50% for 31 of the 40 countries tracked in the tables. See Table 9.
- Average revenue per minute has declined significantly for calls to all regions of the world. From 1993 to 2003, average revenue per minute declined by 80%. The smallest percentage decline was 77% for calls to the Caribbean, North and Central America, and Western Europe. The greatest percentage decline was 88% for calls to Eastern Europe. See Table 18.

Carrier Market Shares:

- In 1980, AT&T billed more than 90% of total U.S. international telephone service revenues and had a virtual monopoly on service from the U.S. mainland. MCI and Sprint entered the market in the mid-1980s. By 1995, AT&T's U.S. international telephone service market share had dropped to 62%. Sprint and MCI together accounted for 35%. See Tables 24 through 27.
- Today, these three largest international carriers -- AT&T, MCI and Sprint -- continue to provide the most reported international telephone service. Note that IP services are not subject to filing requirements and thus are not included in these figures. See Figure 7 and Tables 24 through 27.

Figure 7
Facilities-Based and Facilities-Resale International Message Telephone Service Revenues

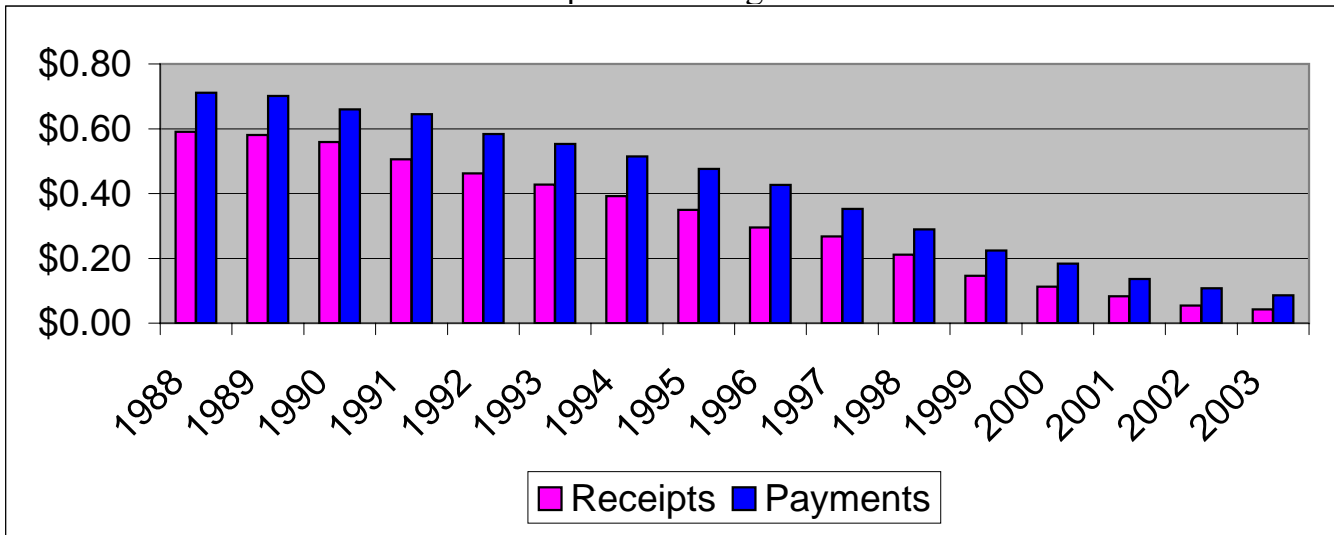


Settlement Payments and Receipts:

- Settlement payments and receipts are part of the financial transactions among carriers providing international telephone services. The settlement rates under which traffic is exchanged are negotiated among the foreign and domestic carriers. The amount of settlement payments and receipts are determined by settlement rates and traffic volume. Until recently, all settlement rates and agreements had to comply with the Commission's International Settlement Policy (ISP). ^{6/} In 2004, the Commission lifted the ISP for agreements involving foreign carriers that do not have market power and on routes where the termination rates for U.S.-international services were below a certain threshold because the Commission found that U.S.-international markets and most foreign markets were more competitive. Also, the Commission sought to promote U.S. carriers' ability to negotiate more cost-based settlement rates. As a result of changes in the Commission's rules, market conditions, and an increased use of the Internet Protocol technology, carriers are terminating an increasing amount of traffic outside the traditional settlement process.
- In 1988, settlement payments represented 70% of the amounts billed to U.S. customers for international calls. In 2003, these payments accounted for 41% of the amounts billed for international traffic.
- Settlement payments per-minute to foreign carriers dropped 88% from \$.71 in 1988 to \$.09 in 2003. During the same period, receipts per-minute to U.S. carriers from foreign carriers dropped 93% from \$.59 to \$.04. See Figure 8 and Table 2.

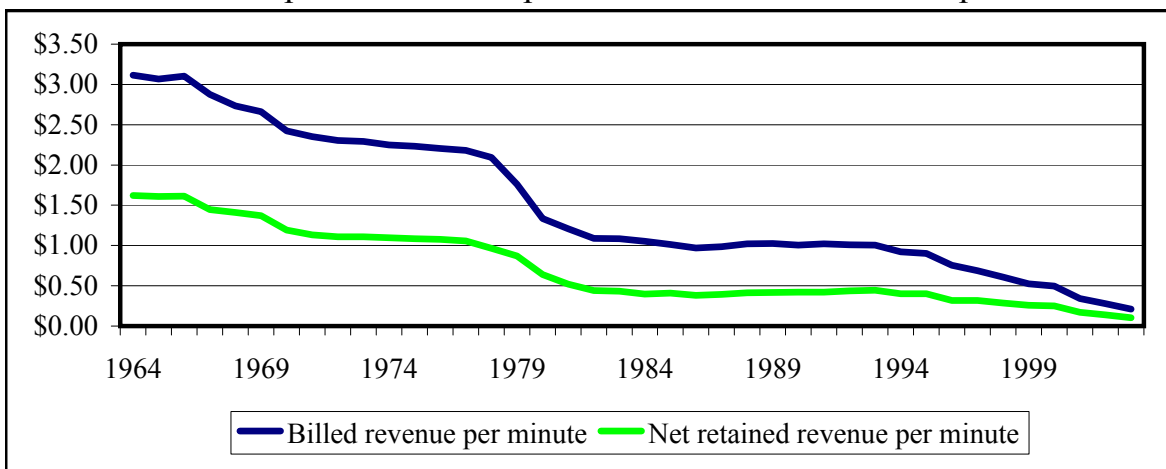
^{6/} See 47 C.F.R. §§ 43.51(c), 64.1001 (2003). In the *2004 International Settlements Policy Reform Order*, the Commission removed the ISP from all routes on which carriers have negotiated benchmark-compliant rates. *International Settlements Policy Reform, International Settlement Rates*, IB Docket No. 02-234, First Report and Order, 19 FCC Rcd 5709 (2004).

Figure 8
Per-Minute Settlement Payouts for US Billed and
Per-Minute Settlement Receipts for Foreign Billed International Minutes



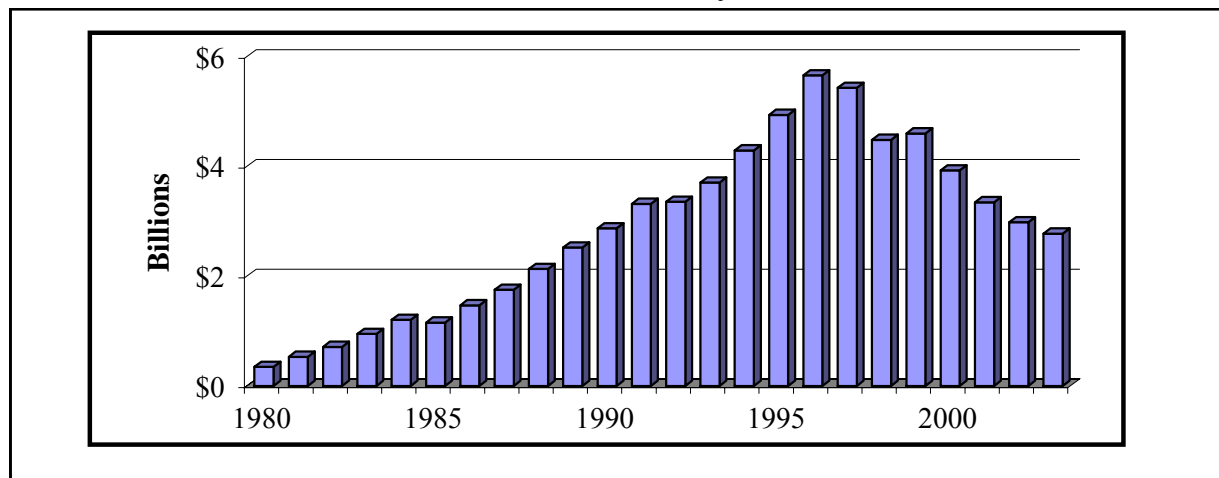
- U.S. carrier net retained revenue per minute is calculated as end-user billed revenues less settlement payments plus settlement receipts, divided by all originating and terminating minutes. Net retained revenue per minute was \$1.62 in 1964, and dropped to \$0.10 in 2003. During this same time period, end-user billed revenues dropped from \$3.11 per minute to \$0.21. Although end-user billed revenues and net retained revenues per minute have both dropped around 93% since 1964, carriers retain almost 50% of each billed minute. See Figure 9 and Table 2.

Figure 9
Billed Revenue per Minute Compared with Retained Revenue per Minute



- In earlier years, growth in U.S. billed calls 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 \$3.7 billion in 1993, to \$5.7 billion in 1996. For three quarters of the 40 countries tracked in this report, the trend reversed in recent years. The decline in settlement rates more than offset the growth rate in U.S. billed minutes. Such has not been the case for El Salvador, Germany, Guatemala, Israel, Italy, Netherlands, Pakistan, Philippines, Spain, and Switzerland. The settlement payments to those countries have increased since 1998. Overall, net settlement payments declined 51% from \$5.7 billion in 1996 to \$2.8 billion in 2003. See Figure 10, and Tables 3 and 10.

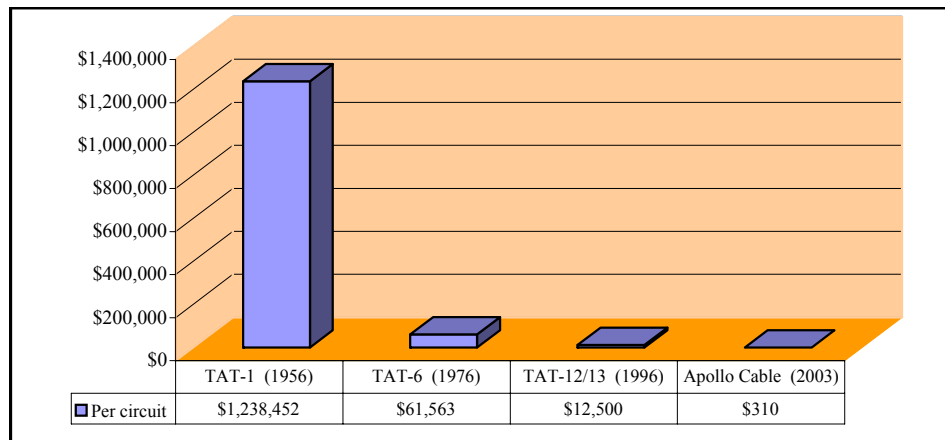
Figure 10
Net Settlement Payouts



Cable Capacity and Cost:

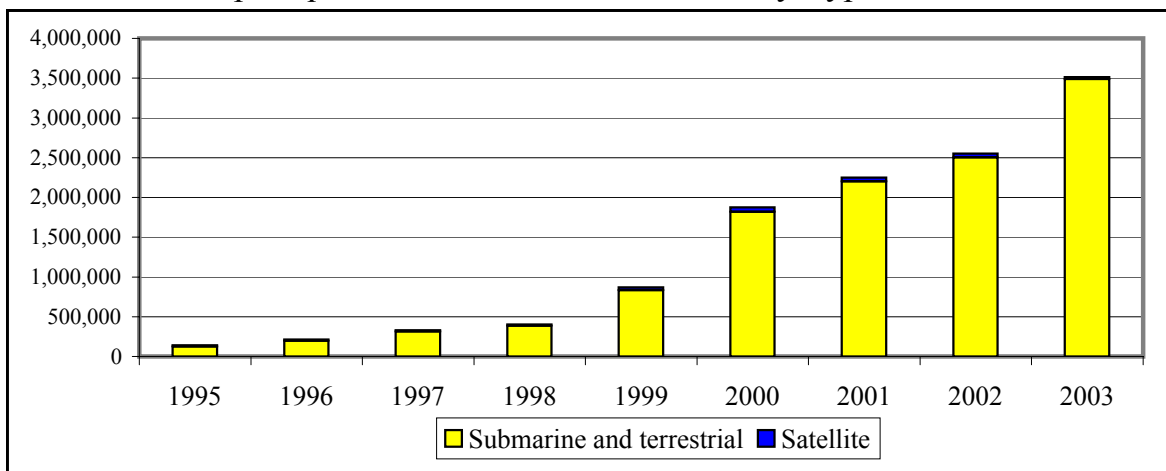
- Declines in settlement rates and increases in traffic are linked to dramatic increases in cable capacity at decreasing costs per circuit. The first trans-Atlantic telephone cable had 40 usable circuits with an investment cost of \$1.2 million per circuit. This would represent an investment cost of around \$1.55 per minute assuming 240 minutes of traffic per day per circuit, a cable life of 25 years, and a 10% return requirement. Today, cable investment costs represent less than one cent per voice minute and new per-circuit cable costs continue to fall. See Figure 11 and Table 5.

Figure 11
Investment Cost per Circuit for Trans-Atlantic Submarine Cable



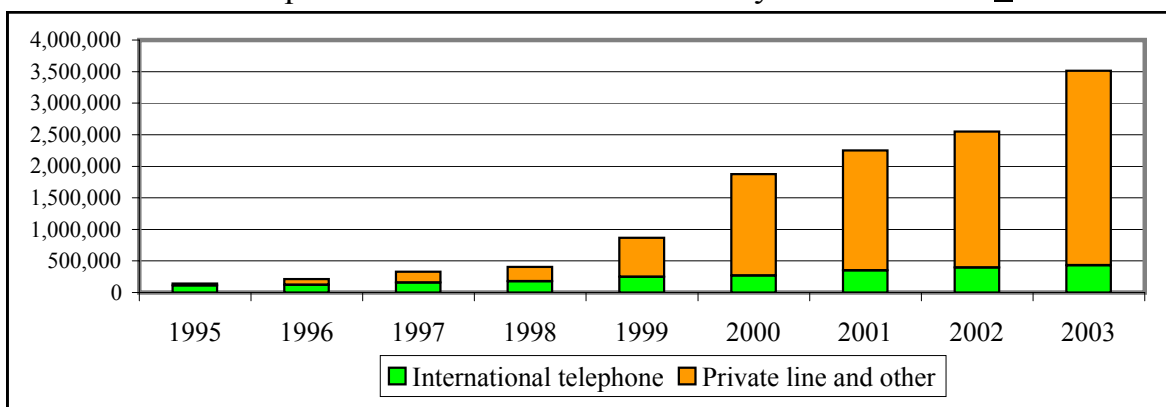
- The reported capacity on international circuits, measured as 64 kbps (voice) equivalent circuits, has increased dramatically in recent years. In 1998, carriers reported 427 thousand 64 kbps equivalent submarine and terrestrial circuits and about 37 thousand voice equivalent satellite circuits. By 2003, these figures were 3,754 thousand and 50 thousand respectively. See Figure 12 and Tables 11 and 12.

Figure 12
64 kbps Equivalent International Circuits by Type of Circuit



- Most international capacity was used to provide international telephone service in 1995, when the FCC began collecting detailed capacity statistics on § 43.82 reports. The number of circuits used for international telephone service has more than tripled since then. See Table 13. However, most of the growth in capacity has been used for other services, particularly private line and data services, and to carry Internet traffic. See Figure 15. While Internet traffic and revenues are not reported, those common carrier circuits that are provided to backbone Internet providers are reported. However, backbone Internet providers also take circuits on a private carrier or non-carrier basis and those circuits are not included in § 43.61 traffic reports or § 43.82 circuit reports. If these circuits were included, Figure 13 would show even greater growth in private line circuits.

Figure 13
Voice Equivalent International Circuits by Use of Circuit ^{7/}



^{7/} Total circuits in Figure 13 are based on data in Table 11 and Table 12; telephone circuits are based on data in Table 13. Additional breakouts of cable capacity by type of circuit and type of service are available in the 2003 Year-End Circuit Status Report, December 2004, available at <http://www.fcc.gov/ib>.

- Growth in demand for high capacity circuits, combined with the installation of high capacity, low cost trans-oceanic cables, have led to dramatic declines in the amount of revenue billed per voice equivalent private line circuit. See Figure 14 and Table 21. Most service to Canada and Mexico is provided using terrestrial facilities. The cost of these facilities has not declined as rapidly as the cost of submarine cable, a fact reflected in Figure 14.

Figure 14
Average Revenue per Voice Equivalent Circuit

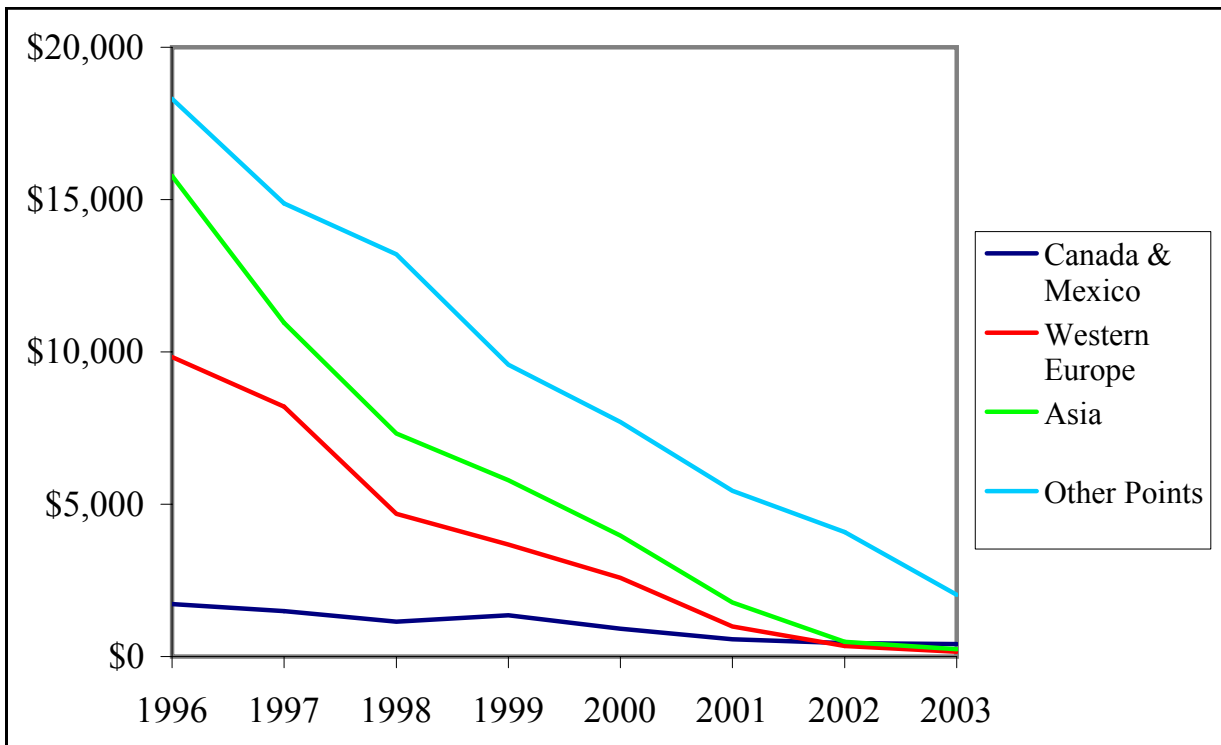


Table 1
International and Domestic Toll Service Revenues
(Revenue Amounts Shown in Millions)

	International Service Revenues 1/								Total Toll Revenues 2/		International as % of Total Toll		
	Telephone		Private Line		Miscellaneous			Total International		End User 4/	Carrier's Carrier & End User	End User 4/	Carrier's Carrier & End User
	Facilities-Based, Facilities-Resale, and ISR 3/	Pure Resale 3/	Telephone	Record	Telex	Telegraph	Other	End User 4/	Carrier's Carrier & End User 4/				
1950	\$9.0		\$0.2	\$1.1		\$39.3		\$49.5	\$49.5		\$1,245		4.0 %
1951	12.1		0.3	1.9	\$0.2	42.6		54.9	57.2		1,403		4.1
1952	15.4		0.3	2.8	0.4	41.3		57.2	60.3		1,535		3.9
1953	13.1		0.3	3.7	0.7	42.5		56.2	60.2		1,642		3.7
1954	13.7		0.2	4.3	0.8	45.0		59.5	64.0		1,796		3.6
1955	15.7		0.2	4.8	1.2	46.6		63.6	68.6		2,049		3.3
1956	18.7		0.3	5.3	1.9	49.8		70.4	76.0		2,277		3.3
1957	22.7		0.6	6.0	2.8	50.3		75.8	82.4		2,525		3.3
1958	27.8		1.4	6.8	3.6	50.2		81.6	89.8		2,680		3.4
1959	33.1		3.4	8.4	5.4	55.0		93.5	105.3		3,008		3.5
1960	42.3		7.1	7.5	7.5	57.9		107.8	122.3		3,243		3.8
1961	50.9		9.1	8.6	10.0	57.1		118.1	135.7		3,495		3.9
1962	61.4		11.1	9.5	12.2	56.2		129.7	150.3		3,786		4.0
1963	69.4		12.4	12.1	13.7	56.3		139.4	163.9		4,095		4.0
1964	62.9		13.6	14.6	17.2	58.0		138.1	166.3		4,615		3.6
1965	78.2		15.9	20.2	21.3	50.6		150.1	186.2		5,092		3.7
1966	100.1		17.6	29.0	27.3	49.7		177.2	223.7		5,843		3.8
1967	114.2		15.1	31.3	33.7	49.8		197.7	244.0		6,375		3.8
1968	126.9		15.4	36.6	44.3	50.5		221.8	273.8		7,126		3.8
1969	172.0		16.8	45.4	56.0	53.8		281.8	344.0		8,232		4.2
1970	196.6		15.5	49.9	63.1	53.1		312.8	378.2		8,956		4.2
1971	237.4		12.7	52.0	72.5	49.2		359.1	423.8		9,962		4.3
1972	291.8		14.2	57.7	88.3	44.8		424.9	496.9		11,323		4.4
1973	364.9		15.1	62.8	115.0	47.7		527.6	605.5		13,126		4.6
1974	428.7		12.9	64.1	142.7	52.3		623.7	700.8		14,582		4.8
1975	490.2		13.2	69.2	163.4	42.5		696.1	778.5		16,098		4.8
1976	601.1		14.1	74.8	188.0	37.3		826.4	915.4		18,680		4.9
1977	744.3		13.8	84.4	225.2	35.5		1,005.0	1,103.2		21,159		5.2
1978	954.4		14.0	93.3	267.3	37.1		1,258.9	1,366.2		24,426		5.6
1979	1,138.2		14.7	96.0	299.4	37.7		1,475.3	1,585.9		27,599		5.7
1980	2,097.2		14.8	100.0	324.9	62.6		2,484.7	2,599.5		31,001		8.4
1981	2,239.4		14.1	111.9	349.6	61.8		2,650.8	2,776.7		39,180		7.1
1982	2,382.1		14.3	123.7	363.3	56.4		2,801.8	2,939.8		43,919		6.7
1983	2,876.1		15.1	138.9	378.6	53.8		3,308.5	3,462.6		46,970		7.4
1984	3,197.0		7.2	150.4	393.8	45.6		3,636.4	3,794.0		51,156		7.4
1985	3,487.4		8.5	163.4	414.7	44.9		3,946.9	4,118.8		54,815		7.5
1986	4,004.4		10.7	164.2	389.6	41.6		4,435.6	4,610.5		57,468		8.0
1987	4,749.6	\$14.1	26.8	164.1	360.1	35.1		5,146.3	5,349.9		58,519		9.1
1988	5,799.8	65.3		194.2	310.1	29.7		6,340.3	6,399.0		62,600		10.2
1989	6,901.1	112.9		208.0	243.1	27.0		7,390.5	7,492.0		66,024		11.3
1990	8,042.3	166.9		201.4	196.1	23.9		8,480.5	8,630.7		66,792		12.9
1991	9,219.1	440.7		309.0	200.0	15.2	\$22.7	9,810.1	10,206.7		68,558		14.9
1992	10,331.3	514.0		323.4	155.4	15.6	24.1	10,901.1	11,363.7		71,983		15.8
1993	11,504.5	594.0		366.1	135.1	11.8	23.4	12,100.2	12,634.8		75,290		16.8
1994	12,430.9	1,122.7		440.9	122.7	12.4	25.3	13,144.3	14,154.8		80,726		17.5
1995	14,159.8	1,759.4		514.2	119.3	6.3	47.9	15,023.4	16,606.8		85,475		19.4
1996	14,234.1	3,642.7		660.7	118.9	5.0	26.1	15,409.1	18,687.5		93,361		20.0
1997	15,250.4	4,113.1		850.9	109.8	3.5	28.3	16,654.2	20,356.0	\$89,193	100,793	18.7 %	20.2
1998	14,246.4	4,798.3		921.5	50.5	2.7	36.3	15,737.2	20,055.7	91,607	105,055	17.2	19.1
1999	14,527.6	4,528.0		1,215.9	56.8	1.6	30.8	16,285.5	20,360.8	93,311	108,246	17.5	18.8
2000	14,172.2	7,366.7		1,501.9	32.7	1.3	250.6	16,751.4	23,381.4	87,767	109,615	19.1	21.3
2001	10,844.4	5,341.8		1,467.0	10.3	0.3	199.2	13,392.3	18,200.0	79,302	99,301	16.9	18.3
2002	9,446.4	5,100.7		988.1	5/	5/	112.8	12,005.9	16,596.6	67,222	83,697	17.9	19.8
2003	8,401.7	5,750.3		620.5	5/	5/	156.1	10,303.4	15,478.7	58,983	77,188	17.5	20.1

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 6/				
	Number of Minutes	End-User Billed Revenues 4/	Payouts to Foreign Carriers	Retained Revenues	Number of Minutes	Receipts from Foreign Carriers	End-User Billed Revenues 6/	Payout to Foreign Carriers	Retained Revenues	Receipts from Foreign Carriers	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	28,515.4	14,980.3	6,383.1	8,597.3	10,765.0	1,576.0	0.53	0.22	0.30	0.15	0.26
2000	30,134.8	14,908.8	5,536.0	9,372.8	12,888.2	1,447.6	0.49	0.18	0.31	0.11	0.25
2001	33,286.8	11,379.6	4,526.2	6,853.5	13,478.0	1,118.4	0.34	0.14	0.21	0.08	0.17
2002	35,988.3	9,956	3,872.9	6,083.6	13,676.8	738.0	0.28	0.11	0.17	0.05	0.14
2003	42,664.3	8,977	3,649.3	5,294.3	15,674.0	669.3	0.21	0.09	0.12	0.04	0.10

See notes at the end of the tables.

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

International Telephone Service	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Annual Growth Rates 1998 to 2003 7/
U.S. Minutes												
US Originated and Received Collect or Toll Free	11,163	13,110	15,135	18,174	21,288	21,712	25,169	26,737	27,543	31,197	35,887	9.5 %
US Billed Country Direct and Country Beyond 8/	350	500	728	1,053	933	1,736	1,935	1,236	1,330	1,127	1,422	n.m.
Calls Reoriginated by U.S. Carriers 8/	n.a.	5	26	98	532	802	1,412	2,161	4,414	3,664	5,355	45.3
Total U.S. Billed Minutes	11,513	13,616	15,889	19,325	22,753	24,250	28,515	30,135	33,287	35,988	42,664	10.9
Foreign Minutes 9/	5,786	6,385	7,051	8,293	9,170	10,198	10,765	12,888	13,478	13,677	15,674	8.7
Transiting Minutes	505	582	520	562	823	1,599	1,384	1,023	742	1,998	1,692	n.m.
Total Minutes	17,804	20,583	23,460	28,180	32,746	36,048	40,664	44,046	47,507	51,663	60,030	10.0
U.S. Messages	1,945	2,347	2,830	3,520	4,259	4,477	5,305	5,742	6,265	6,107	7,350	8.9
Foreign Messages	1,220	1,408	1,525	1,976	2,103	2,134	2,682	2,904	2,942	3,030	3,608	9.0
Total Messages	3,165	3,755	4,354	5,496	6,361	6,611	7,987	8,646	9,207	9,136	10,958	8.9
Average Minutes per Message												
U.S. Calls	5.9	5.8	5.6	5.5	5.3	5.4	5.4	5.2	5.3	5.9	5.8	
Foreign Calls	4.7	4.5	4.6	4.2	4.4	4.8	4.0	4.4	4.6	4.5	4.3	
All Telephone Calls	5.6	5.5	5.4	5.1	5.1	5.5	5.1	5.1	5.2	5.7	5.5	
Billed Revenues	\$11,505	\$12,431	\$14,160	\$14,234	\$15,250	\$14,246	\$14,528	\$14,172	\$10,844	\$9,446	\$8,402	-11.3
Settlement Payments	\$6,372	\$7,010	\$7,569	\$8,252	\$8,031	\$7,022	\$6,383	\$5,536	\$4,526	\$3,873	\$3,649	-13.2
Retained Billed Revenues	\$5,133	\$5,421	\$6,591	\$5,982	\$7,219	\$7,225	\$8,145	\$8,636	\$6,318	\$5,574	\$4,752	-9.6
Settlement Receipts	\$2,477	\$2,502	\$2,464	\$2,451	\$2,459	\$2,158	\$1,576	\$1,448	\$1,118	\$738	\$669	-21.3
Transiting Traffic Receipts	\$452	\$496	\$565	\$369	\$408	\$1,094	\$369	\$349	\$125	\$290	\$223	n.m.
Transiting Traffic Payments	\$261	\$279	\$398	\$226	\$265	\$715	\$163	\$187	\$63	\$136	\$19	n.m.
Net Settlement Payments	(\$3,705)	(\$4,291)	(\$4,938)	(\$5,658)	(\$5,429)	(\$4,484)	(\$4,601)	(\$3,927)	(\$3,346)	(\$2,981)	(\$2,776)	n.m.
Net Revenues 10/	\$7,800	\$8,140	\$9,222	\$8,576	\$9,821	\$9,762	\$9,926	\$10,245	\$7,499	\$6,465	\$5,625	-11.7
Per Minute of U.S. Traffic:												
U.S. Billings	\$1.00	\$0.91	\$0.89	\$0.74	\$0.67	\$0.59	\$0.51	\$0.47	\$0.33	\$0.26	\$0.20	-20.0
Settlement Payments	\$0.55	\$0.51	\$0.48	\$0.43	\$0.35	\$0.29	\$0.22	\$0.18	\$0.14	\$0.11	\$0.09	-21.8
Retained Revenues	\$0.45	\$0.40	\$0.41	\$0.31	\$0.32	\$0.30	\$0.29	\$0.29	\$0.19	\$0.15	\$0.11	-18.5
Per Minute of Foreign Traffic:												
Settlement Receipts	\$0.43	\$0.39	\$0.35	\$0.30	\$0.27	\$0.21	\$0.15	\$0.11	\$0.08	\$0.05	\$0.04	-27.6
Per Transiting Minute Revenues	\$0.38	\$0.37	\$0.32	\$0.25	\$0.17	\$0.24	\$0.15	\$0.16	\$0.08	\$0.08	\$0.12	-15.7
Net Revenue per Minute	\$0.44	\$0.40	\$0.39	\$0.30	\$0.30	\$0.27	\$0.24	\$0.23	\$0.16	\$0.13	\$0.09	-19.7
Percent Billings for Settlements	55.4%	56.4%	53.5%	58.0%	52.7%	49.3%	43.9%	39.1%	41.7%	41.0%	43.4%	
Average Price for a U.S. Call	\$5.92	\$5.30	\$5.00	\$4.04	\$3.58	\$3.18	\$2.74	\$2.47	\$1.73	\$1.55	\$1.14	-18.6

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/ 11/
(Amounts Shown in Millions)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Annual Growth Rates 1998 to 2003 7/
Total United States	11,513	13,616	15,889	19,325	22,753	24,250	28,515	29,216	33,287	35,988	42,664	11.0 %
Total Other Countries	36,687	40,284	44,411	50,675	59,047	68,750	80,385	103,484	110,713	119,212	133,736	14.0
Total World	48,200	53,900	60,300	70,000	81,800	93,000	108,900	132,700	144,000	155,200	176,400	13.2
U.S. as a Percent of World	23.9%	25.3%	26.3%	27.6%	27.8%	26.1%	26.2%	22.0%	23.1%	23.2%	24.2%	
AT&T	7,201	8,040	8,831	9,546	10,331	10,452	10,900	9,787	11,975	12,787	13,681	6.0
MCI, Inc.	2,857	3,529	4,486	5,372	5,913	7,195	8,306	12,412	11,455	12,260	13,524	12.9
Sprint	1,181	1,490	1,772	2,745	2,794	2,916	3,640	3,945	5,447	4,774	6,459	15.7
Bell Canada					1,250	1,350	1,600	1,900	n.a.	n.a.	n.a.	n.m.
BT	2,310	2,489	2,909	3,158	3,735	4,249	4,029	4,559	4,234	4,059	4,178	-0.4
Cable & Wireless	820	1,018	1,107	1,411	2,065	2,646	2,528	3,488	3,114	3,459	n.a.	n.m.
China Telecom 12/	900	1,170	1,390	1,433	1,632	1,712	1,950	2,240	1,783	1,325	1,460	-6.0
Deutsche Telekom 12/	4,680	5,147	5,244	5,100	4,813	4,711	4,385	4,525	4,900	5,275	5,200	3.3
France Telecom	2,576	2,603	2,805	3,116	3,545	3,911	4,390	4,393	4,592	4,603	4,696	3.2
PCCW	1,377	1,578	1,692	1,739	1,718	1,682	1,668	1,200	1,270	1,169	1,445	-4.9
Stentor	1,552	1,525	1,467	1,650	1,778	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.m.
Swisscom	1,572	1,649	1,778	1,936	2,164	2,258	2,259	1,633	1,757	2,137	3,052	4.1
Telecom Italia	1,610	1,708	1,908	2,184	2,352	2,339	2,391	2,706	3,042	3,405	3,682	10.3

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)

System 13/	Year	Technology	Estimated Cost When New (\$ Million)	Total 64 kbps Circuits as Planned 14/	Usable 64 kbps Circuits as Planned 14/	Investment Cost per Usable Planned Circuit 15/
Trans-Atlantic						
TAT-1	1956	Coax Cable	\$50	45	40	\$1,238,452
TAT-2	1959	Coax Cable	43	49	44	968,254
TAT-3	1963	Coax Cable	51	88	79	642,540
TAT-4	1965	Coax Cable	50	69	62	811,594
TAT-5	1970	Coax Cable	70	720	648	108,642
TAT-6	1976	Coax Cable	197	4,000	3,200	61,563
TAT-7	1983	Coax Cable	180	4,246	3,821	47,103
TAT-8	1988	Fiber Optic	360	7,560	6,048	59,524
PTAT-1	1989	Fiber Optic	400	17,010	17,010	23,516
TAT-9	1992	Fiber Optic	406	15,120	15,120	26,852
TAT-10	1992	Fiber Optic	300	22,680	15,120	19,841
TAT-11	1993	Fiber Optic	280	22,680	15,120	18,519
TAT-12/13	1996	Fiber Optic	756	60,480	60,480	12,500
Gemini	1997	Fiber Optic	520	120,960	120,960	4,299
AC-1	1998	Fiber Optic	750	241,920	241,920	3,100
Colombus III	1999	Fiber Optic	236	120,960	120,960	1,951
Level 3	2000	Fiber Optic	300	1,935,360	1,935,360	155
AC-2	2000	Fiber Optic	300	1,935,360	1,935,360	155
TAT-14	2001	Fiber Optic	1,500	1,935,360	1,935,360	775
FLAG-Atlantic-1	2001	Fiber Optic	1,200	1,935,360	1,935,360	620
Hibernia Atlantic	2003	Fiber Optic	630	1,935,360	1,935,360	326
(formerly 360Atlantic)						
Apollo Cable	2003	Fiber Optic	1,200	3,870,720	3,870,720	310
Americas						
TCS-1	1990	Fiber Optic	133	1,890	1,890	70,370
Taino-Carb	1992	Fiber Optic	17	45,360	45,360	375
Americas 1	1994	Fiber Optic	268	22,680	22,680	11,817
Pan American Cable System	1998	Fiber Optic	214	120,960	120,960	1,769
Americas II	2000	Fiber Optic	310	604,800	604,800	513
MAC	2000	Fiber Optic	200	241,920	241,920	827
PAC	2000	Fiber Optic	365	241,920	241,920	1,509
MAYA-1	2000	Fiber Optic	150	90,720	90,720	1,653
SAC	2000	Fiber Optic	700	483,840	483,840	1,447
ARCOS-1	2001	Fiber Optic	285	181,440	181,440	1,571
Emergia Cable System (formerly SAM-1)	2001	Fiber Optic	900	483,840	483,840	1,860
SMPR-1	2004	Fiber Optic	15	30,240	30,240	496
Trans-Pacific						
HAW-4/TPC-3	1989	Fiber Optic	601	7,560	7,560	79,497
TPC-4	1992	Fiber Optic	408	15,120	15,120	26,984
HAW-5	1993	Fiber Optic	152	15,120	15,120	10,053
PacRimEast	1993	Fiber Optic	280	7,560	7,560	37,037
PacRimWest	1995	Fiber Optic	282	7,560	7,560	37,302
TPC-5	1996	Fiber Optic	1,348	120,960	120,960	11,144
PC-1	1999	Fiber Optic	1,200	967,680	967,680	1,240
China-U.S. CN	2000	Fiber Optic	1,100	967,680	967,680	1,137
Southern Cross	2000	Fiber Optic	800	483,840	483,840	1,653
Australia-Japan Cable (Guam)	2001	Fiber Optic	350	967,680	967,680	362
Japan-U.S. CN	2001	Fiber Optic	1,000	967,680	967,680	1,033
Tyco Pacific	2003	Fiber Optic	1,700	5,564,160	5,564,160	306

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	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Annual Growth Rate 1998 to 2003 7/
Australia	126.5	157.0	201.3	282.6	389.2	439.9	397.0	492.9	504.3	499.7	529.6	4.8 %
Brazil	171.4	221.9	283.0	374.7	495.3	568.1	586.4	677.8	773.9	797.5	1,029.0	12.2
Canada	2,493.8	2,787.3	3,049.3	3,464.9	3,922.1	3,860.6	4,292.2	4,623.1	4,915.1	4,850.3	5,493.7	6.5
China	110.3	169.5	231.0	299.3	380.2	418.3	397.1	501.0	398.9	395.7	559.1	3.5
Colombia	200.2	231.1	256.5	288.0	263.0	217.8	320.9	382.5	435.7	357.7	838.9	22.8
Dominican Republic	255.2	314.2	410.5	416.4	379.1	438.4	749.9	665.5	716.4	1,005.7	780.3	11.6
Egypt	49.0	56.9	68.6	90.0	109.9	111.3	169.1	94.4	170.7	291.8	260.4	20.3
El Salvador	107.0	120.8	135.7	141.8	154.9	197.9	237.4	298.1	331.6	669.3	1,016.7	38.5
France	263.7	304.9	362.8	442.6	511.0	560.3	577.1	539.4	725.5	653.5	681.4	4.8
Germany	572.6	604.1	662.3	782.4	1,008.3	1,153.4	1,466.4	1,251.4	886.9	1,057.4	1,501.9	0.0
Greece	75.6	82.1	86.5	91.3	97.5	115.3	183.8	213.8	259.9	172.9	203.6	8.5
Guatemala	93.8	105.4	115.1	128.0	127.3	144.7	189.8	233.1	368.9	909.1	1,455.9	61.2
Haiti	52.9	62.8	73.6	79.2	93.6	99.6	135.9	94.4	67.3	107.8	231.8	9.5
Hong Kong	143.2	213.9	315.8	539.7	677.3	565.3	193.0	163.3	278.1	171.2	232.6	-11.5
India	134.2	191.6	285.7	428.0	583.3	749.7	960.1	1,243.5	1,332.7	1,512.2	1,319.4	12.9
Israel	162.7	195.7	214.3	239.8	214.2	220.4	363.8	307.3	267.8	309.5	536.5	11.6
Italy	229.7	250.9	279.4	336.3	476.6	515.1	701.3	499.8	685.9	722.7	748.6	6.7
Jamaica	145.0	167.5	186.7	220.9	252.9	289.1	364.4	289.3	373.2	524.0	438.9	10.3
Japan	400.5	469.2	576.3	703.4	857.4	799.4	819.9	859.2	884.2	831.6	905.4	2.0
Korea, Republic of	238.8	283.4	319.3	382.5	428.4	381.3	322.9	335.8	430.5	394.8	439.9	4.6
Mexico	1,398.9	1,656.2	2,012.2	2,390.4	2,766.5	3,013.6	4,053.6	5,509.4	5,123.9	4,973.5	4,709.1	8.2
Morocco	9.2	11.7	13.6	14.1	14.4	16.3	64.8	34.0	51.0	88.8	71.6	28.4
Netherlands	107.3	130.4	163.6	207.2	225.3	273.0	308.2	236.6	283.4	404.5	495.1	12.0
Nigeria	38.5	39.5	52.1	75.1	105.3	160.7	133.5	104.9	92.2	98.3	118.8	-7.0
Pakistan	68.7	84.1	107.2	133.9	164.7	204.4	304.9	454.2	517.3	612.6	642.9	25.5
Peru	89.7	105.8	121.8	145.0	165.2	180.9	241.4	163.4	171.3	161.6	397.2	8.2
Philippines	224.7	267.3	295.7	356.3	452.3	557.1	757.6	1,042.3	1,664.7	2,275.5	1,458.9	27.8
Poland	81.6	110.3	133.4	161.4	170.8	189.4	273.1	276.1	372.8	270.5	361.9	10.5
Russia	45.6	63.7	78.4	100.9	122.5	156.3	193.8	183.6	171.8	148.8	284.0	6.3
Saudi Arabia	67.6	77.5	88.2	101.3	110.1	108.1	111.1	109.5	180.5	179.5	332.5	6.3
Sierra Leone	4.5	4.8	5.8	8.9	12.1	39.7	10.0	4.8	9.3	19.3	19.0	-3.0
Singapore	56.8	73.0	100.1	148.7	202.7	168.4	120.3	115.7	124.5	109.0	125.5	-4.7
South Africa	36.3	53.7	73.8	97.5	111.6	128.0	163.9	114.7	127.4	75.6	234.1	2.3
Spain	109.5	119.4	130.3	147.9	191.0	245.3	329.1	341.1	322.7	367.4	498.4	11.5
Switzerland	104.4	115.4	135.6	181.1	246.3	197.6	240.3	179.3	216.7	270.0	412.9	12.8
Taiwan	184.7	226.0	271.6	321.7	379.4	325.3	335.6	351.0	349.5	261.5	265.2	-4.9
Thailand	62.9	78.4	92.3	114.6	117.2	121.2	117.9	131.8	170.6	146.4	162.0	7.0
Turkey	40.1	45.6	51.3	59.3	62.5	106.9	241.2	162.0	205.6	258.1	276.6	16.0
United Kingdom	800.2	906.4	1,025.1	1,226.4	1,553.8	1,561.2	1,673.6	1,621.1	1,922.1	2,179.7	2,630.9	10.7
Vietnam	20.6	45.2	74.3	114.2	165.2	192.0	252.0	312.8	282.6	252.2	182.9	-1.0
Total for Countries Shown Above	9,577.8	11,204.9	13,139.9	15,837.6	18,760.7	19,791.3	23,354.4	25,213.9	27,167.6	29,386.8	32,883.1	9.9 %
Total for Other Countries	1,935.5	2,410.8	2,748.9	3,487.6	3,992.4	4,458.6	5,161.0	4,920.9	6,119.2	6,601.5	9,781.2	15.0
Total for All Countries	11,513.3	13,615.6	15,888.8	19,325.1	22,753.1	24,249.9	28,515.4	30,134.8	33,286.8	35,988.3	42,664.3	10.9
Total for 5 Largest Routes	49.2%	47.2%	46.1%	44.3%	44.4%	42.6%	43.6%	46.0%	44.9%	43.9%	37.0%	
Canada, India Mexico, Philippines and UK as Percent of Total	43.9%	42.7%	42.0%	40.7%	40.8%	40.2%	41.2%	46.6%	44.9%	43.9%	36.6%	
Other Countries Shown Above as Percent of Total	39.3%	39.8%	40.8%	41.4%	41.6%	41.6%	40.9%	38.9%	39.6%	42.1%	42.1%	
Countries not Shown Above as Percent of Total	16.9%	17.6%	17.2%	17.9%	17.7%	18.2%	17.9%	14.5%	15.4%	14.0%	21.3%	

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	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Annual Growth Rate 1998 to 2003 7/
Australia	118.6	140.1	150.1	155.8	131.6	236.6	446.0	314.3	271.3	296.2	301.4	-0.5 %
Brazil	46.9	62.1	101.7	123.5	159.2	180.2	185.9	203.2	232.8	317.6	263.9	11.0
Canada	1,605.6	1,800.8	2,067.3	2,845.9	3,141.9	3,359.0	3,922.1	5,139.3	5,066.4	4,432.0	4,822.5	6.4
China	41.1	48.5	52.4	58.3	61.8	79.4	46.9	65.7	57.7	70.7	88.7	4.8
Colombia	51.8	58.9	59.7	61.4	67.6	51.2	57.2	89.1	94.2	94.6	117.7	17.8
Dominican Republic	62.3	69.2	97.4	125.1	107.8	113.2	122.0	219.2	192.1	272.9	214.6	17.0
Egypt	8.0	8.6	9.2	9.6	10.7	11.7	11.2	11.3	11.8	13.2	30.6	16.5
El Salvador	7.8	8.0	8.6	9.9	12.7	16.0	24.8	71.6	61.9	70.2	92.8	39.9
France	161.7	170.3	181.2	203.6	216.7	270.8	226.2	253.9	231.6	338.5	358.7	7.5
Germany	262.6	277.1	290.6	313.0	325.2	365.9	333.0	384.6	477.2	863.1	864.5	23.4
Greece	25.4	34.2	30.6	33.0	35.1	42.8	38.6	46.1	47.5	47.6	52.3	4.9
Guatemala	14.0	12.8	14.3	11.8	15.4	17.9	18.7	27.0	48.0	43.3	59.3	29.6
Haiti	5.5	6.9	10.4	7.1	5.0	7.1	6.8	4.7	8.0	8.2	18.4	18.2
Hong Kong	89.9	101.0	102.4	96.3	78.4	50.5	103.7	83.9	81.6	139.1	229.4	27.2
India	57.3	52.0	51.8	50.1	49.7	58.5	44.2	77.4	77.8	83.5	289.2	32.7
Israel	53.2	59.3	70.4	78.9	121.6	171.4	237.4	261.7	260.3	288.1	302.7	10.3
Italy	99.1	101.4	104.0	114.4	117.8	134.0	201.1	133.8	125.5	176.2	217.2	5.7
Jamaica	38.4	36.1	44.3	50.1	49.9	51.9	54.2	59.2	68.0	98.2	89.2	14.1
Japan	291.5	308.8	322.5	346.5	342.9	336.4	309.2	310.2	343.3	357.9	505.8	7.6
Korea, Republic of	102.2	125.2	140.7	159.1	199.9	219.7	203.8	279.6	266.2	253.0	280.2	5.3
Mexico	676.3	748.8	835.7	948.1	942.2	1,086.3	1,124.1	1,574.5	1,700.1	1,449.6	1,703.7	9.2
Morocco	4.2	4.5	4.8	4.8	5.8	6.4	6.0	7.2	10.8	4.5	4.3	-6.6
Netherlands	77.0	82.5	82.7	85.6	98.7	122.2	136.8	143.4	187.4	222.9	302.9	19.6
Nigeria	11.3	18.5	18.9	9.2	8.7	17.4	9.2	11.0	17.7	13.4	10.4	-2.7
Pakistan	7.6	8.4	9.2	10.0	10.5	15.6	8.8	14.7	9.3	11.2	61.8	22.6
Peru	14.7	20.2	24.0	25.5	24.5	31.4	27.5	33.4	33.2	35.5	49.9	9.2
Philippines	37.0	42.9	42.3	50.2	33.4	50.8	38.9	57.3	73.3	104.3	85.4	18.0
Poland	28.7	34.0	31.5	27.1	27.3	27.8	24.9	24.2	13.3	20.0	16.1	-10.8
Russia	31.6	30.2	26.6	31.0	29.8	22.0	17.4	27.6	54.9	24.1	18.1	2.0
Saudi Arabia	29.8	28.2	24.1	27.2	31.8	36.9	32.0	24.0	35.7	30.3	27.8	-3.3
Sierra Leone	0.4	0.5	0.5	1.0	1.2	1.2	0.6	1.2	1.1	1.9	1.3	11.0
Singapore	37.7	43.5	51.1	53.5	61.4	65.8	26.4	72.7	73.5	65.0	87.7	12.6
South Africa	20.8	24.3	26.7	29.3	31.1	36.5	38.9	39.0	28.1	36.7	77.9	9.8
Spain	45.4	51.8	46.1	61.5	85.3	76.0	85.1	112.0	108.3	144.4	139.0	14.0
Switzerland	66.1	73.0	77.3	91.9	98.0	102.1	81.7	118.1	98.0	125.6	156.4	9.7
Taiwan	88.7	93.9	108.5	112.2	139.1	152.9	121.8	167.0	170.5	162.6	194.2	6.1
Thailand	18.9	22.6	26.3	29.7	26.3	32.2	23.5	25.6	30.2	32.4	37.1	5.4
Turkey	16.8	17.8	21.1	25.9	25.0	28.4	27.0	25.9	24.6	30.3	34.3	3.6
United Kingdom	546.7	590.0	690.7	737.7	945.5	1,175.2	1,119.1	1,001.9	1,351.7	1,370.0	1,597.3	7.2
Vietnam	1.0	2.1	3.1	5.2	4.1	4.5	7.4	4.5	5.0	4.7	4.1	-5.0
Total for Countries Shown Above	4,903.4	5,418.6	6,060.8	7,219.9	7,880.8	8,865.7	9,550.2	11,520.6	12,049.8	12,153.4	13,809.1	8.9 %
Total for Other Countries	882.7	966.3	989.7	1,073.2	1,289.3	1,332.8	1,214.8	1,367.6	1,428.2	1,523.4	1,864.9	7.1
Total for All Countries	5,786.0	6,384.9	7,050.6	8,293.2	9,170.0	10,198.5	10,765.0	12,888.2	13,478.0	13,676.8	15,674.0	8.7
Total for 5 Largest Routes	58.5%	58.3%	59.7%	62.6%	62.1%	62.0%	63.2%	65.3%	66.3%	61.9%	60.6%	
Canada, India Mexico, Philippines and UK as Percent of Total	50.5%	50.7%	52.3%	55.9%	55.8%	56.2%	58.0%	60.9%	61.4%	54.4%	54.2%	
Other Countries Shown Above as Percent of Total	34.2%	34.2%	33.7%	31.2%	30.2%	30.7%	30.7%	28.5%	28.0%	34.5%	33.9%	
Countries not Shown Above as Percent of Total	15.3%	15.1%	14.0%	12.9%	14.1%	13.1%	11.3%	10.6%	10.6%	11.1%	11.9%	

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	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change 1998 to 2003
Australia	\$158.0	\$170.6	\$202.5	\$192.2	\$118.4	\$186.3	\$220.2	\$250.3	\$191.4	136.2	134.9	-27.6 %
Brazil	181.5	215.0	271.3	290.7	362.2	382.0	336.1	304.9	194.0	179.4	146.4	-61.7
Canada	1,027.2	991.9	1,039.8	1,020.1	1,203.4	1,195.0	1,204.1	1,221.0	920.8	928.6	877.0	-26.6
China	198.5	261.2	338.7	383.9	434.7	375.8	289.7	238.2	116.1	95.2	98.1	-73.9
Colombia	215.1	232.3	257.5	242.6	234.8	168.2	208.6	163.6	114.1	73.6	96.2	-42.8
Dominican Republic	249.5	262.3	342.9	292.8	216.5	197.8	202.4	168.1	143.6	149.8	124.3	-37.1
Egypt	66.2	72.2	85.9	93.9	113.5	108.0	137.0	66.2	75.0	80.6	53.7	-50.3
El Salvador	132.4	144.7	166.9	165.7	167.6	161.0	163.3	180.2	105.3	186.6	129.7	-19.4
France	261.9	277.9	294.6	274.4	323.2	280.8	204.7	222.1	239.2	143.0	170.7	-39.2
Germany	600.9	575.5	581.6	510.1	505.8	458.4	544.0	410.4	340.3	301.4	465.2	1.5
Greece	86.1	87.9	95.0	90.4	94.3	91.9	112.9	132.2	64.7	47.4	46.1	-49.8
Guatemala	111.7	121.7	134.8	137.3	127.4	120.8	126.0	146.1	138.4	300.1	300.0	148.4
Haiti	64.5	77.1	86.5	78.5	75.4	71.3	77.9	48.6	31.3	35.9	50.7	-28.9
Hong Kong	195.7	230.4	283.2	319.8	318.1	199.7	104.8	72.7	52.6	58.4	79.0	-60.4
India	252.8	298.5	395.3	433.9	561.2	610.5	634.5	799.4	685.4	600.2	322.4	-47.2
Israel	203.3	215.6	248.6	235.5	215.3	174.8	171.8	106.5	87.4	79.0	86.3	-50.6
Italy	241.2	255.8	278.4	265.8	352.0	358.5	410.4	273.2	231.1	183.0	196.0	-45.3
Jamaica	152.6	176.4	192.9	201.3	202.1	213.2	233.0	166.8	138.7	165.3	119.5	-43.9
Japan	494.2	490.9	573.8	537.8	529.6	371.8	368.3	320.3	259.2	265.7	244.8	-34.1
Korea, Republic of	325.6	325.6	347.3	355.2	379.2	307.9	226.1	200.3	157.0	125.4	110.9	-64.0
Mexico	1,400.0	1,547.8	1,700.8	1,775.7	1,850.0	1,794.2	2,027.8	2,858.7	1,471.1	1,346.3	572.2	-68.1
Morocco	12.2	14.4	18.2	16.8	18.3	13.7	47.1	21.0	22.1	20.9	20.3	47.9
Netherlands	109.8	112.3	128.0	118.3	112.6	108.5	134.9	111.3	107.7	84.1	111.4	2.6
Nigeria	44.9	42.9	56.5	65.0	83.6	109.7	88.8	44.6	38.2	30.0	31.8	-71.0
Pakistan	116.8	130.9	164.1	166.2	184.4	202.9	225.8	305.5	235.9	176.8	131.6	-35.2
Peru	95.5	109.4	125.7	126.1	144.2	144.4	161.9	79.7	53.3	31.7	47.7	-67.0
Philippines	315.8	345.8	382.3	383.9	435.5	424.0	470.3	488.0	514.9	583.1	239.9	-43.4
Poland	86.1	98.9	113.8	117.8	129.2	107.8	110.9	108.6	137.9	71.1	46.1	-57.2
Russia	88.6	115.9	123.3	129.0	142.9	107.8	120.0	79.6	46.1	35.4	67.8	-37.1
Saudi Arabia	95.3	96.9	106.1	106.4	118.8	108.3	97.5	82.3	96.3	53.1	86.0	-20.6
Sierra Leone	8.7	8.6	10.4	10.8	13.0	18.8	7.5	2.9	7.7	8.3	5.9	-68.4
Singapore	78.4	87.0	107.6	126.3	112.8	93.9	69.7	59.6	54.9	60.2	60.2	-35.8
South Africa	38.8	50.6	69.8	66.8	87.6	87.1	92.8	73.9	43.7	34.9	56.6	-35.0
Spain	120.9	127.9	140.4	138.5	150.6	176.6	207.2	188.6	117.2	87.2	114.8	-35.0
Switzerland	107.9	116.1	119.6	111.9	112.5	96.2	102.7	78.7	63.6	48.1	74.0	-23.1
Taiwan	239.3	237.5	263.6	238.2	260.4	205.8	181.2	166.3	110.8	70.3	54.6	-73.5
Thailand	96.0	99.8	117.1	117.4	127.2	113.9	101.3	85.2	57.2	32.5	45.2	-60.3
Turkey	53.0	56.9	61.5	61.6	66.3	97.8	132.4	80.3	53.2	55.0	85.0	-13.0
United Kingdom	699.5	719.4	750.7	699.2	761.4	659.4	693.5	693.9	700.3	423.9	463.9	-29.6
Vietnam	46.7	82.8	127.1	153.8	209.7	216.8	213.7	282.6	246.8	128.7	53.6	-75.3
Total for Countries Shown Above	9,073.3	9,685.2	10,904.3	10,851.9	11,655.6	10,921.1	11,262.5	11,382.7	8,464.4	7,516.5	6,220.6	-43.0 %
Total for Other Countries	2,431.2	2,745.6	3,144.2	3,406.0	3,594.8	3,325.3	3,265.0	2,789.5	2,380.0	1,930.0	2,181.0	-34.4
Total for All Countries	11,504.5	12,430.9	14,159.8	14,234.1	15,250.4	14,246.4	14,527.6	14,172.2	10,844.4	9,446.4	8,401.7	-41.0
Canada, India Mexico, Philippines and UK as Percent of Total	32.1%	31.4%	30.1%	30.3%	31.5%	32.9%	34.6%	42.8%	39.6%	41.1%	29.5%	
Other Countries Shown Above as Percent of Total	46.7%	46.5%	46.9%	45.9%	44.9%	43.8%	42.9%	37.6%	38.5%	38.5%	44.6%	
Countries not Shown Above as Percent of Total	21.1%	22.1%	23.0%	23.8%	23.6%	23.3%	22.5%	19.7%	21.9%	20.4%	26.0%	

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	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change 1998 to 2003
Australia	\$1.25	\$1.09	\$1.01	\$0.68	\$0.30	\$0.42	\$0.55	\$0.51	\$0.38	\$0.27	\$0.25	-39.9 %
Brazil	1.06	0.97	0.96	0.78	0.73	0.67	0.57	0.45	0.25	0.22	0.14	-78.8
Canada	0.41	0.36	0.34	0.29	0.31	0.31	0.28	0.26	0.19	0.19	0.16	-48.4
China	1.80	1.54	1.47	1.28	1.14	0.90	0.73	0.48	0.29	0.24	0.18	-80.5
Colombia	1.07	1.01	1.00	0.84	0.89	0.77	0.65	0.43	0.26	0.21	0.11	-85.2
Dominican Republic	0.98	0.83	0.84	0.70	0.57	0.45	0.27	0.25	0.20	0.15	0.16	-64.7
Egypt	1.35	1.27	1.25	1.04	1.03	0.97	0.81	0.70	0.44	0.28	0.21	-78.8
El Salvador	1.24	1.20	1.23	1.17	1.08	0.81	0.69	0.60	0.32	0.28	0.13	-84.3
France	0.99	0.91	0.81	0.62	0.63	0.50	0.35	0.41	0.33	0.22	0.25	-50.0
Germany	1.05	0.95	0.88	0.65	0.50	0.40	0.37	0.33	0.38	0.29	0.31	-22.1
Greece	1.14	1.07	1.10	0.99	0.97	0.80	0.61	0.62	0.25	0.27	0.23	-71.6
Guatemala	1.19	1.15	1.17	1.07	1.00	0.83	0.66	0.63	0.38	0.33	0.21	-75.3
Haiti	1.22	1.23	1.18	0.99	0.81	0.72	0.57	0.51	0.47	0.33	0.22	-69.4
Hong Kong	1.37	1.08	0.90	0.59	0.47	0.35	0.54	0.45	0.19	0.34	0.34	-3.8
India	1.88	1.56	1.38	1.01	0.96	0.81	0.66	0.64	0.51	0.40	0.24	-70.0
Israel	1.25	1.10	1.16	0.98	1.01	0.79	0.47	0.35	0.33	0.26	0.16	-79.7
Italy	1.05	1.02	1.00	0.79	0.74	0.70	0.59	0.55	0.34	0.25	0.26	-62.4
Jamaica	1.05	1.05	1.03	0.91	0.80	0.74	0.64	0.58	0.37	0.32	0.27	-63.1
Japan	1.23	1.05	1.00	0.76	0.62	0.47	0.45	0.37	0.29	0.32	0.27	-41.9
Korea, Republic of	1.36	1.15	1.09	0.93	0.89	0.81	0.70	0.60	0.36	0.32	0.25	-68.8
Mexico	1.00	0.93	0.85	0.74	0.67	0.60	0.50	0.52	0.29	0.27	0.12	-79.6
Morocco	1.33	1.23	1.35	1.19	1.27	0.84	0.73	0.62	0.43	0.24	0.28	-66.3
Netherlands	1.02	0.86	0.78	0.57	0.50	0.40	0.44	0.47	0.38	0.21	0.22	-43.4
Nigeria	1.17	1.09	1.08	0.86	0.79	0.68	0.67	0.42	0.41	0.31	0.27	-60.7
Pakistan	1.70	1.56	1.53	1.24	1.12	0.99	0.74	0.67	0.46	0.29	0.20	-79.4
Peru	1.07	1.03	1.03	0.87	0.87	0.80	0.67	0.49	0.31	0.20	0.12	-84.9
Philippines	1.41	1.29	1.29	1.08	0.96	0.76	0.62	0.47	0.31	0.26	0.16	-78.4
Poland	1.06	0.90	0.85	0.73	0.76	0.57	0.41	0.39	0.37	0.26	0.13	-77.6
Russia	1.94	1.82	1.57	1.28	1.17	0.69	0.62	0.43	0.27	0.24	0.24	-65.4
Saudi Arabia	1.41	1.25	1.20	1.05	1.08	1.00	0.88	0.75	0.53	0.30	0.26	-74.2
Sierra Leone	1.94	1.78	1.80	1.22	1.07	0.47	0.75	0.61	0.83	0.43	0.31	-33.8
Singapore	1.38	1.19	1.08	0.85	0.56	0.56	0.58	0.52	0.44	0.55	0.48	-13.9
South Africa	1.07	0.94	0.95	0.69	0.78	0.68	0.57	0.64	0.34	0.46	0.24	-64.5
Spain	1.10	1.07	1.08	0.94	0.79	0.72	0.63	0.55	0.36	0.24	0.23	-68.0
Switzerland	1.03	1.01	0.88	0.62	0.46	0.49	0.43	0.44	0.29	0.18	0.18	-63.2
Taiwan	1.30	1.05	0.97	0.74	0.69	0.63	0.54	0.47	0.32	0.27	0.21	-67.4
Thailand	1.53	1.27	1.27	1.02	1.09	0.94	0.86	0.65	0.34	0.22	0.28	-70.3
Turkey	1.32	1.25	1.20	1.04	1.06	0.91	0.55	0.50	0.26	0.21	0.31	-66.4
United Kingdom	0.87	0.79	0.73	0.57	0.49	0.42	0.41	0.43	0.36	0.19	0.18	-58.3
Vietnam	2.27	1.83	1.71	1.35	1.27	1.13	0.85	0.90	0.87	0.51	0.29	-74.1
Average for Countries Shown Above	0.95	0.86	0.83	0.69	0.62	0.55	0.48	0.45	0.31	0.26	0.19	-4.3 %
Average for Other Countries	1.26	1.14	1.14	0.98	0.90	0.75	0.63	0.57	0.39	0.29	0.22	-2.3
Average for All Countries	1.00	0.91	0.89	0.74	0.67	0.59	0.51	0.47	0.33	0.26	0.20	-3.8
Canada, India Mexico, Philippines and UK as Percent of Total	0.73	0.67	0.64	0.55	0.52	0.48	0.43	0.43	0.29	0.25	0.16	
Average for Other Countries Shown Above	1.19	1.07	1.03	0.82	0.72	0.62	0.54	0.48	0.34	0.27	0.22	

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	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change 1998 to 2003
Australia	(\$6.1)	(\$19.0)	\$8.7	\$21.9	\$37.2	\$26.5	\$55.6	\$71.1	\$20.2	\$15.7	\$16.2	-39.0 %
Brazil	90.7	104.2	102.7	132.9	153.7	129.8	87.1	77.5	61.9	40.0	45.5	-64.9
Canada	130.2	136.7	125.4	99.7	73.9	77.4	47.8	6.0	11.6	(2.5)	(17.9)	n.m.
China	77.7	152.1	231.0	263.2	233.9	140.6	122.7	97.3	43.0	15.7	14.1	-90.0
Colombia	111.7	122.9	131.9	139.2	110.5	56.2	68.9	75.1	47.9	25.9	43.4	-22.8
Dominican Republic	120.2	126.5	125.4	111.4	84.7	93.5	107.8	43.3	18.3	34.5	45.5	-51.3
Egypt	33.3	37.0	41.7	55.8	64.7	55.1	78.3	35.9	32.2	40.3	36.2	-34.3
El Salvador	65.0	69.6	77.1	75.0	67.6	70.9	60.4	52.9	51.8	56.4	79.0	11.4
France	40.7	41.5	44.2	45.3	39.3	22.7	18.2	18.7	57.3	45.0	22.7	-0.2
Germany	129.4	79.4	64.2	53.0	66.4	51.9	33.2	64.3	36.1	54.8	88.9	71.3
Greece	38.7	36.0	33.9	26.6	25.4	20.6	25.1	18.2	15.1	9.0	13.2	-36.1
Guatemala	52.1	56.7	58.7	64.0	53.2	41.0	46.7	57.5	57.8	71.6	100.5	145.2
Haiti	30.9	34.6	37.1	42.7	52.5	54.1	61.8	34.8	26.9	19.8	28.4	-47.5
Hong Kong	33.9	56.7	106.3	207.8	237.6	158.0	13.4	5.4	9.0	1.9	(2.8)	-101.8
India	58.2	109.4	202.9	298.1	409.7	417.6	523.1	542.0	493.8	372.8	168.8	-59.6
Israel	105.0	128.5	119.1	103.4	41.5	12.6	16.7	11.9	2.1	8.2	13.0	2.9
Italy	85.2	72.3	65.9	51.8	63.1	54.3	66.4	37.9	46.2	70.2	65.3	20.1
Jamaica	78.4	93.1	99.4	115.5	132.3	154.9	154.5	89.7	61.6	67.2	47.2	-69.5
Japan	52.6	76.7	119.3	169.0	210.7	65.9	61.1	43.8	39.2	42.1	29.3	-55.6
Korea, Republic of	103.2	111.0	118.7	122.1	101.5	18.4	32.3	6.8	12.7	8.9	(1.2)	-106.3
Mexico	720.0	818.9	871.7	875.0	703.3	648.9	652.3	755.7	471.2	421.9	360.2	-44.5
Morocco	7.5	9.8	11.0	5.5	3.4	1.4	17.1	6.4	7.8	17.8	12.1	n.m.
Netherlands	8.0	10.8	22.3	22.8	16.5	11.3	(0.1)	7.8	11.8	12.6	16.2	42.7
Nigeria	18.8	9.5	8.5	41.7	68.5	100.3	70.9	31.3	18.1	18.1	15.4	-84.6
Pakistan	69.8	88.1	107.3	127.6	120.3	114.6	152.3	185.4	144.4	139.1	120.9	5.5
Peru	53.4	58.7	62.1	72.3	74.6	64.0	62.2	23.1	20.7	18.0	16.2	-74.7
Philippines	144.0	150.7	154.2	162.1	164.7	150.5	187.1	144.8	190.3	211.3	191.3	27.1
Poland	31.8	42.1	52.3	57.9	43.6	36.9	48.1	31.5	27.7	27.5	14.6	-60.5
Russia	20.8	39.0	60.6	67.1	44.4	35.8	55.9	27.9	14.7	8.6	9.9	-72.5
Saudi Arabia	37.7	50.2	66.9	77.6	71.2	53.5	46.6	18.7	26.6	36.4	36.2	-32.4
Sierra Leone	3.7	3.6	3.6	4.8	6.5	10.0	3.3	1.5	2.8	4.1	3.5	-64.4
Singapore	7.8	13.1	22.4	42.6	56.6	26.3	11.6	6.6	3.3	(0.2)	1.0	-96.4
South Africa	13.0	18.1	27.0	35.6	37.0	34.7	37.7	21.3	22.0	6.4	21.3	-38.6
Spain	54.9	55.7	53.0	36.2	21.2	26.1	25.6	20.7	15.1	28.0	28.1	7.4
Switzerland	15.6	17.9	19.3	22.7	23.5	14.0	18.0	8.4	13.2	16.8	31.6	126.0
Taiwan	48.9	79.1	95.0	118.4	133.9	42.3	27.8	21.9	18.6	4.4	4.4	-89.5
Thailand	36.2	44.8	50.7	64.1	57.3	34.4	27.5	20.2	43.7	16.0	12.6	-63.3
Turkey	21.3	26.0	24.0	18.9	16.6	28.4	69.4	32.4	31.1	32.7	23.9	-15.7
United Kingdom	67.3	77.1	55.3	41.1	23.4	(15.9)	25.9	12.7	14.8	1.3	(13.0)	-18.0
Vietnam	21.5	40.4	62.3	94.1	139.8	151.0	179.4	209.2	171.5	116.1	46.9	-68.9
Total for Countries Shown Above	2,832.9	3,279.5	3,743.2	4,186.2	4,085.2	3,290.7	3,399.6	2,977.3	2,414.2	2,134.1	1,788.5	-45.6 %
Total for Other Countries	872.0	1,011.3	1,194.7	1,472.3	1,343.9	1,193.4	1,201.9	949.9	931.4	847.0	987.9	-17.2
Total for All Countries	3,705.0	4,290.9	4,937.8	5,658.4	5,429.2	4,484.1	4,601.5	3,927.2	3,345.6	2,981.1	2,776.5	-38.1
Canada, India Mexico, Philippines and UK as Percent of Total	30.2%	30.1%	28.5%	26.1%	25.3%	28.5%	31.2%	37.2%	35.3%	33.7%	24.8%	
Other Countries Shown Above as Percent of Total	46.2%	46.3%	47.3%	47.9%	49.9%	44.9%	42.7%	38.6%	36.8%	37.9%	39.6%	
Countries not Shown Above as Percent of Total	23.5%	23.6%	24.2%	26.0%	24.8%	26.6%	26.1%	24.2%	27.8%	28.4%	35.6%	

See notes at the end of the tables.

Table 11
Submarine and Terrestrial Circuits in Service 15/
For Selected International Points

Cable & Terrestrial Circuits	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change 1998 to 2003
Australia	n.a.	n.a.	2,874	4,416	8,201	8,819	21,740	40,241	94,186	103,601	121,082	1273.0 %
Brazil	n.a.	n.a.	1,264	2,119	3,229	4,423	5,986	27,233	31,382	31,106	21,923	395.7
Canada	n.a.	n.a.	51,223	65,440	124,489	108,235	185,171	393,519	465,547	391,446	443,652	309.9
China	n.a.	n.a.	409	744	1,013	1,469	4,463	16,475	54,601	47,955	51,517	3406.9
Colombia	n.a.	n.a.	914	1,166	1,190	1,371	1,671	4,059	6,908	12,871	14,579	963.4
Dominican Republic	n.a.	n.a.	1,477	1,464	1,512	2,128	2,009	2,696	3,559	8,472	6,703	215.0
Egypt	n.a.	n.a.	30	63	115	257	296	281	181	245	361	40.5
El Salvador	n.a.	n.a.	120	0	114	185	279	234	354	5,972	4,931	2565.4
France	n.a.	n.a.	2,622	5,351	6,312	6,703	15,714	26,172	31,352	27,015	58,457	772.1
Germany	n.a.	n.a.	3,532	8,449	12,909	12,735	33,710	101,669	83,327	124,648	273,425	2047.0
Greece	n.a.	n.a.	142	278	349	174	474	575	2,577	425	420	141.4
Guatemala	n.a.	n.a.	0	0	34	145	134	219	326	1,063	1,389	857.9
Haiti	n.a.	n.a.	90	60	60	61	88	88	152	148	178	191.8
Hong Kong	n.a.	n.a.	1,406	2,581	4,041	5,748	10,537	15,516	20,489	72,739	125,792	2088.4
India	n.a.	n.a.	608	1,041	1,453	1,008	3,793	5,619	11,982	25,140	39,316	3800.4
Israel	n.a.	n.a.	528	863	1,291	1,923	3,557	3,575	4,330	3,699	2,152	11.9
Italy	n.a.	n.a.	1,534	2,254	2,334	2,840	3,140	12,847	32,240	34,409	20,195	611.1
Jamaica	n.a.	n.a.	273	263	228	445	470	586	995	1,139	1,593	258.0
Japan	n.a.	n.a.	6,435	12,786	16,303	20,047	62,391	125,321	173,099	219,871	408,134	1935.9
Korea, Republic of	n.a.	n.a.	1,105	2,379	5,548	5,919	11,488	38,940	63,904	40,707	46,934	692.9
Mexico	n.a.	n.a.	24,860	41,059	60,083	69,250	104,348	169,052	228,618	232,473	266,015	284.1
Morocco	n.a.	n.a.	61	62	62	64	59	60	63	59	87	35.9
Netherlands	n.a.	n.a.	1,808	2,985	3,230	8,182	23,103	68,439	66,064	223,794	225,753	2659.1
Nigeria	n.a.	n.a.	0	30	0	0	0	66	2	2	90	n.m.
Pakistan	n.a.	n.a.	0	32	0	1	5	316	559	797	966	96500.0
Peru	n.a.	n.a.	0	0	0	0	313	900	1,915	3,122	2,126	n.m.
Philippines	n.a.	n.a.	1,804	2,265	3,616	4,546	5,109	6,435	11,885	19,696	28,489	526.7
Poland	n.a.	n.a.	347	580	659	928	961	957	884	886	1,320	42.2
Russia	n.a.	n.a.	677	659	1,267	1,681	2,610	3,271	1,285	1,188	1,958	16.5
Saudi Arabia	n.a.	n.a.	90	150	179	149	210	210	2,669	277	241	61.7
Sierra Leone	n.a.	n.a.	0	0	0	0	0	0	0	0	0	n.m.
Singapore	n.a.	n.a.	597	1,449	2,048	2,584	9,241	25,045	39,525	63,717	81,228	3043.5
South Africa	n.a.	n.a.	174	357	523	577	575	581	1,930	501	1,882	226.2
Spain	n.a.	n.a.	1,136	1,353	2,685	2,978	2,540	2,893	35,750	4,686	5,334	79.1
Switzerland	n.a.	n.a.	1,156	1,553	2,347	3,825	8,561	8,999	20,684	71,521	165,229	4219.7
Taiwan	n.a.	n.a.	1,058	1,825	2,501	3,204	7,167	12,784	30,095	28,842	30,892	864.2
Thailand	n.a.	n.a.	140	256	599	879	1,149	1,418	6,498	7,095	4,839	450.5
Turkey	n.a.	n.a.	149	238	343	194	414	356	2,922	304	395	103.6
United Kingdom	n.a.	n.a.	14,952	32,034	41,537	104,039	300,402	701,941	667,809	691,695	1,027,660	887.8
Vietnam	n.a.	n.a.	1	210	508	534	582	547	589	829	794	48.7
Total for Countries Shown Above	n.a.	n.a.	125,596	198,814	312,912	388,250	834,460	1,820,135	2,201,237	2,504,155	3,488,031	798.4 %
Total for Other Countries	n.a.	n.a.	12,917	18,465	27,800	39,206	46,262	70,819	121,389	260,398	266,233	579.1
Total for All Countries	n.a.	n.a.	138,513	217,279	340,712	427,456	880,722	1,890,954	2,322,626	2,764,553	3,754,264	778.3
Canada, India Mexico, Philippines and UK as Percent of Total	n.a.	n.a.	67.5%	65.3%	67.9%	67.2%	68.0%	67.5%	59.7%	49.2%	48.1%	
Other Countries Shown Above as Percent of Total	n.a.	n.a.	23.2%	26.2%	24.0%	23.7%	26.8%	28.7%	35.1%	41.4%	44.8%	
Countries not Shown Above as Percent of Total	n.a.	n.a.	9.3%	8.5%	8.2%	9.2%	5.3%	3.7%	5.2%	9.4%	7.1%	

See notes at the end of the tables.

Table 12
Satellite Circuits in Service 15/
For Selected International Points

Activated Satellite Circuits	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change 1998 to 2003
Australia	n.a.	n.a.	293	291	271	232	4,040	2,508	3,609	4,277	3,430	1378.4 %
Brazil	n.a.	n.a.	633	645	852	1,252	3,914	4,096	1,260	735	816	-34.8
Canada	n.a.	n.a.	1,272	647	1,992	634	1,284	1,763	504	3	3	-99.5
China	n.a.	n.a.	705	852	914	996	969	10,094	6,771	6,854	1,719	72.6
Colombia	n.a.	n.a.	346	400	695	724	2,062	3,180	3,678	3,208	541	-25.3
Dominican Republic	n.a.	n.a.	683	971	1,339	629	636	612	440	469	158	-74.9
Egypt	n.a.	n.a.	210	199	226	289	2,347	423	360	366	217	-24.9
El Salvador	n.a.	n.a.	237	408	407	469	1,068	1,950	1,387	1,233	432	-7.9
France	n.a.	n.a.	300	345	343	343	22	22	56	62	70	-79.6
Germany	n.a.	n.a.	455	75	347	257	612	449	392	274	444	72.8
Greece	n.a.	n.a.	198	201	224	163	317	770	1,079	914	321	96.9
Guatemala	n.a.	n.a.	338	415	423	502	578	894	809	697	402	-19.9
Haiti	n.a.	n.a.	311	201	194	195	290	432	816	854	381	95.4
Hong Kong	n.a.	n.a.	275	356	333	208	2,215	1,416	653	31	119	-42.8
India	n.a.	n.a.	690	862	768	955	840	772	867	1,386	653	-31.6
Israel	n.a.	n.a.	300	483	635	458	2,915	7,128	1,361	1	0	-100.0
Italy	n.a.	n.a.	177	318	223	346	296	187	41	38	38	-89.0
Jamaica	n.a.	n.a.	374	431	489	460	841	899	1,858	1,540	786	70.9
Japan	n.a.	n.a.	1,393	1,171	1,033	933	1,057	3,100	276	727	2,399	157.1
Korea, Republic of	n.a.	n.a.	534	640	493	481	460	745	580	291	1,128	134.5
Mexico	n.a.	n.a.	78	74	472	286	56	107	891	788	41	-85.7
Morocco	n.a.	n.a.	33	34	58	60	72	83	75	85	61	1.7
Netherlands	n.a.	n.a.	91	43	43	43	21	21	32	30	30	-30.2
Nigeria	n.a.	n.a.	242	185	235	328	591	743	1,035	1,170	663	102.1
Pakistan	n.a.	n.a.	269	339	339	368	442	578	565	539	565	53.5
Peru	n.a.	n.a.	344	528	687	799	1,418	1,287	593	1,416	284	-64.5
Philippines	n.a.	n.a.	206	137	48	19	11	897	380	394	90	373.7
Poland	n.a.	n.a.	224	259	258	258	257	249	258	289	287	11.2
Russia	n.a.	n.a.	613	694	554	461	455	737	231	120	132	-71.4
Saudi Arabia	n.a.	n.a.	317	365	396	380	533	545	805	823	490	28.9
Sierra Leone	n.a.	n.a.	17	31	31	31	31	32	66	73	61	96.8
Singapore	n.a.	n.a.	306	291	213	214	394	210	244	193	0	-100.0
South Africa	n.a.	n.a.	169	278	322	514	398	1,684	5,793	5,819	357	-30.5
Spain	n.a.	n.a.	61	102	124	166	67	164	145	62	62	-62.7
Switzerland	n.a.	n.a.	176	116	2	0	0	4	4,744	4,744	2,847	n.m.
Taiwan	n.a.	n.a.	171	148	132	127	130	2,224	761	773	38	-70.1
Thailand	n.a.	n.a.	286	400	320	193	205	158	112	84	24	-87.6
Turkey	n.a.	n.a.	80	189	136	138	389	2,992	3,925	1,449	89	-35.5
United Kingdom	n.a.	n.a.	1,229	441	202	211	460	2,219	1,433	2,324	4,296	1936.0
Vietnam	n.a.	n.a.	194	308	188	188	157	235	155	163	75	-60.1
Total for Countries Shown Above	n.a.	n.a.	14,830	14,873	16,961	15,310	32,850	56,609	49,040	45,298	24,549	60.3 %
Total for Other Countries	n.a.	n.a.	11,075	14,399	20,410	21,346	27,975	36,107	33,040	35,011	25,546	19.7
Total for All Countries	n.a.	n.a.	25,905	29,272	37,371	36,656	60,825	92,716	82,080	80,309	50,095	36.7
Canada, India Mexico, Philippines and UK as Percent of Total	n.a.	n.a.	13.4%	7.4%	9.3%	5.7%	4.4%	6.2%	5.0%	6.1%	10.1%	
Other Countries Shown Above as Percent of Total	n.a.	n.a.	43.8%	43.4%	36.1%	36.0%	49.6%	54.8%	54.8%	50.3%	38.9%	
Countries not Shown Above as Percent of Total	n.a.	n.a.	42.8%	49.2%	54.6%	58.2%	46.0%	38.9%	40.3%	43.6%	51.0%	

See notes at the end of the tables.

Table 13
Circuits Used for International Telephone Service 15/
For Selected International Points

IMTS Circuits	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change 1998 to 2003
Australia	n.a.	n.a.	2,310	2,247	4,173	3,494	2,521	3,366	5,845	9,292	7,597	117.4 %
Brazil	n.a.	n.a.	1,430	1,530	1,595	2,030	1,919	2,639	3,318	5,724	6,718	230.9
Canada	n.a.	n.a.	44,384	41,869	50,501	54,909	77,798	80,874	140,285	125,435	125,338	128.3
China	n.a.	n.a.	1,058	1,290	1,501	1,606	1,673	1,557	1,761	1,585	2,312	44.0
Colombia	n.a.	n.a.	1,026	1,178	1,137	1,168	1,373	1,699	2,566	4,008	3,232	176.7
Dominican Republic	n.a.	n.a.	1,555	1,661	2,156	2,310	1,973	2,258	2,725	3,266	3,056	32.3
Egypt	n.a.	n.a.	235	203	215	278	270	300	332	407	514	84.9
El Salvador	n.a.	n.a.	338	359	390	474	637	690	721	988	1,240	161.6
France	n.a.	n.a.	2,143	2,810	3,142	4,389	5,336	5,896	8,595	13,738	22,050	402.4
Germany	n.a.	n.a.	2,706	3,835	5,120	5,595	9,244	11,315	12,472	20,880	18,447	229.7
Greece	n.a.	n.a.	314	330	404	285	373	524	477	507	475	66.7
Guatemala	n.a.	n.a.	308	365	368	465	503	702	633	1,247	1,546	232.5
Haiti	n.a.	n.a.	392	246	244	240	236	298	328	358	328	36.7
Hong Kong	n.a.	n.a.	779	1,007	1,273	1,227	1,313	1,657	2,783	2,553	7,912	544.8
India	n.a.	n.a.	1,004	1,358	1,418	1,144	1,453	1,839	1,993	3,529	8,945	681.9
Israel	n.a.	n.a.	676	860	1,082	1,018	1,141	1,357	1,306	1,307	1,209	18.8
Italy	n.a.	n.a.	1,545	1,772	1,700	2,234	2,635	2,740	4,965	15,613	20,067	798.3
Jamaica	n.a.	n.a.	587	620	639	771	668	802	1,041	969	1,204	56.2
Japan	n.a.	n.a.	4,888	5,629	6,582	7,041	8,681	11,133	10,764	15,125	12,387	75.9
Korea, Republic of	n.a.	n.a.	1,143	1,492	2,246	2,299	2,678	2,858	2,807	3,037	3,887	69.1
Mexico	n.a.	n.a.	23,270	27,812	37,030	40,350	52,280	64,529	71,216	83,465	84,320	109.0
Morocco	n.a.	n.a.	91	89	113	115	112	114	114	113	142	23.5
Netherlands	n.a.	n.a.	1,224	1,073	1,179	2,087	1,831	3,401	3,497	3,012	5,247	151.4
Nigeria	n.a.	n.a.	232	208	232	294	364	365	303	333	454	54.4
Pakistan	n.a.	n.a.	268	329	269	300	305	443	813	1,115	1,373	357.7
Peru	n.a.	n.a.	277	343	383	404	540	758	593	1,089	1,154	185.6
Philippines	n.a.	n.a.	1,856	2,003	2,835	3,125	3,143	3,862	6,588	10,642	7,146	128.7
Poland	n.a.	n.a.	554	744	760	1,089	1,085	1,105	1,057	1,129	1,526	40.1
Russia	n.a.	n.a.	1,108	1,052	1,266	1,269	1,541	1,455	1,160	1,158	1,639	29.2
Saudi Arabia	n.a.	n.a.	319	378	461	297	328	358	478	518	478	60.9
Sierra Leone	n.a.	n.a.	16	27	27	27	27	24	38	38	46	70.4
Singapore	n.a.	n.a.	378	623	641	835	867	975	1,181	1,990	1,658	98.6
South Africa	n.a.	n.a.	259	382	423	432	432	524	579	656	592	37.0
Spain	n.a.	n.a.	1,120	1,209	1,722	1,990	1,463	2,726	3,982	3,939	3,982	100.1
Switzerland	n.a.	n.a.	927	952	1,237	2,251	1,991	2,799	4,586	3,912	4,944	119.6
Taiwan	n.a.	n.a.	1,070	1,377	1,635	1,368	1,647	1,586	1,768	2,201	12,185	790.7
Thailand	n.a.	n.a.	342	357	439	490	487	460	489	580	613	25.1
Turkey	n.a.	n.a.	180	233	287	209	321	355	385	351	381	82.3
United Kingdom	n.a.	n.a.	8,530	13,149	18,197	25,444	54,789	48,762	42,226	50,163	52,112	104.8
Vietnam	n.a.	n.a.	191	508	661	662	643	601	571	571	504	-23.9
Total for Countries Shown Above	n.a.	n.a.	111,033	123,509	155,683	176,015	246,621	269,706	347,341	396,543	428,960	143.7 %
Total for Other Countries	n.a.	n.a.	20,689	22,599	26,674	28,790	30,805	32,901	36,299	52,127	55,441	92.6
Total for All Countries	n.a.	n.a.	131,722	146,108	182,357	204,805	277,426	302,607	383,640	448,670	484,401	136.5
Canada, India Mexico, Philippines and UK as Percent of Total	n.a.	n.a.	60.0%	59.0%	60.3%	61.0%	68.3%	66.0%	68.4%	60.9%	57.4%	
Other Countries Shown above as Percent of Total	n.a.	n.a.	24.3%	24.3%	23.8%	23.7%	18.4%	20.6%	20.6%	25.2%	28.9%	
Countries not Shown Above as Percent of Total	n.a.	n.a.	15.7%	16.7%	15.9%	15.3%	13.3%	13.3%	11.0%	13.9%	13.8%	

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	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent Change 1998 to 2003
Australia	\$15.9	\$19.9	\$21.8	\$25.5	\$40.1	\$47.4	\$81.6	\$100.5	\$74.4	\$36.5	\$29.3	-38.2 %
Brazil	6.4	7.7	10.6	14.8	17.9	26.6	26.1	26.1	32.6	22.1	13.1	-50.7
Canada	42.0	55.4	59.8	60.6	67.1	60.2	88.0	98.0	86.4	70.8	54.1	-10.1
China	0.6	1.1	1.7	2.9	5.8	12.7	32.6	61.2	84.1	56.9	8.0	-37.3
Colombia	2.1	2.8	3.7	6.0	7.0	15.3	18.2	23.7	12.9	15.8	11.3	-26.0
Dominican Republic	1.7	2.5	4.1	5.2	6.4	4.8	6.5	6.6	6.5	6.1	3.8	-21.7
Egypt	0.2	0.1	1.0	0.1	1.1	1.4	4.8	2.3	2.2	2.1	0.8	-44.8
El Salvador	0.3	0.8	0.9	1.1	1.4	2.2	3.8	7.3	4.4	2.3	1.3	-42.8
France	13.6	13.2	14.1	18.3	20.4	14.2	12.4	8.4	5.5	2.9	3.8	-73.1
Germany	12.1	18.3	26.8	31.3	48.5	37.9	44.6	36.7	31.6	46.9	25.7	-32.1
Greece	0.4	0.3	0.2	0.3	0.5	0.4	1.2	1.8	1.5	1.6	0.2	-55.8
Guatemala	0.5	0.7	0.8	0.9	1.3	1.4	2.3	6.8	3.5	2.4	1.8	29.7
Haiti	0.1	0.2	0.3	0.2	0.4	0.4	1.3	2.1	1.1	1.2	2.2	478.2
Hong Kong	15.0	18.6	24.2	32.3	33.4	42.6	60.1	62.5	29.7	9.5	12.9	-69.8
India	1.7	3.6	6.0	10.3	14.6	24.7	29.3	50.7	64.9	82.4	84.2	240.8
Israel	1.8	1.8	3.9	6.5	7.5	8.1	15.1	12.1	13.1	6.9	3.1	-61.4
Italy	2.6	2.9	3.7	6.2	8.5	5.5	7.5	5.8	5.5	4.2	1.0	-82.6
Jamaica	0.8	0.8	1.0	1.5	2.0	2.2	4.4	10.9	6.1	4.5	5.6	156.9
Japan	48.5	49.2	46.6	64.0	92.3	109.5	160.7	189.4	207.3	81.4	61.1	-44.2
Korea, Republic of	7.7	7.8	9.1	13.4	17.6	29.2	52.7	31.8	33.4	13.8	13.6	-53.4
Mexico	16.7	21.5	29.6	29.9	33.9	41.6	69.1	98.7	90.5	53.9	41.8	0.4
Morocco	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.6	0.3	6720.7
Netherlands	5.9	6.2	9.7	13.6	14.9	15.7	14.7	9.9	9.0	8.4	3.0	-80.9
Nigeria	0.2	0.1	0.1	0.3	0.4	0.7	1.0	5.8	4.7	4.6	1.1	68.3
Pakistan	0.1	0.1	0.1	0.4	0.6	1.9	2.0	3.6	4.0	3.0	0.9	-51.3
Peru	1.0	1.3	1.9	2.9	4.1	5.2	7.0	10.3	5.1	5.0	2.2	-58.5
Philippines	3.5	3.9	4.9	6.0	8.9	13.7	17.6	14.3	14.2	9.8	8.5	-38.3
Poland	0.0	0.1	0.2	0.2	0.3	0.4	0.8	0.6	0.4	0.4	0.6	54.2
Russia	1.2	5.7	6.8	12.4	11.0	13.3	7.9	4.6	2.5	2.3	1.7	-87.2
Saudi Arabia	1.9	2.0	2.2	2.9	1.7	2.1	2.8	2.3	3.5	3.9	1.6	-25.0
Sierra Leone	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.1	7.7
Singapore	9.9	15.0	18.7	20.4	26.3	33.8	48.9	56.1	50.2	19.2	10.7	-68.4
South Africa	0.2	0.5	1.1	3.9	6.3	8.1	11.2	18.1	15.5	11.0	1.3	-83.7
Spain	1.9	1.4	1.7	2.4	3.3	1.2	2.8	2.3	1.5	0.8	0.5	-60.1
Switzerland	6.0	6.3	6.8	7.1	8.4	8.2	6.0	2.8	4.6	5.1	3.2	-60.9
Taiwan	3.2	4.0	5.9	7.2	11.1	19.8	30.7	38.4	25.1	9.8	5.4	-72.9
Thailand	0.9	1.3	2.0	2.8	3.9	4.4	5.7	6.6	11.0	2.4	1.0	-76.3
Turkey	0.8	0.9	0.9	1.4	1.5	1.9	2.6	8.3	1.7	1.0	0.5	-73.5
United Kingdom	82.7	96.4	107.4	132.6	183.0	120.8	92.9	144.9	140.0	81.1	52.3	-56.7
Vietnam	0.0	0.0	0.0	0.1	0.1	1.0	1.0	0.3	0.7	0.7	1.8	83.7
Total for Countries Shown Above	310.1	374.4	440.4	548.0	713.7	740.1	978.1	1,172.8	1,091.3	693.3	475.0	-35.8 %
Total for Other Countries	56.0	66.4	73.8	112.7	137.2	181.4	237.8	307.1	326.1	294.7	145.5	-19.8
Total for All Countries	366.1	440.9	514.2	660.7	850.9	921.5	1,215.9	1,479.9	1,417.4	988.1	620.5	-32.7
Canada, India Mexico, Philippines and UK as Percent of Total	40.0%	41.0%	40.4%	36.2%	36.1%	28.3%	24.4%	27.5%	27.9%	30.2%	38.8%	
Other Countries Shown Above as Percent of Total	44.7%	43.9%	45.3%	46.7%	47.7%	52.0%	56.0%	51.8%	49.1%	40.0%	37.7%	
Countries not Shown Above as Percent of Total	15.3%	15.1%	14.4%	17.1%	16.1%	19.7%	19.6%	20.7%	23.0%	29.8%	23.4%	

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

U.S. Billed Minutes	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Annual Growth Rates 1999 to 2003 7/
Africa	235.3	303.4	408.0	525.1	602.2	772.7	907.7	731.2	1,041.5	1,206.6	2,076.9	24.1 %
Antarctica and Maritime	11.9	10.3	8.9	4.4	10.3	16.6	3.5	1.3	2.2	2.5	3.5	n.m.
Asia	1,756.7	2,241.9	2,851.2	3,781.7	4,704.7	4,783.6	4,879.7	5,870.0	6,872.4	7,510.4	7,355.9	11.3
Caribbean	735.4	912.4	1,088.8	1,264.3	1,372.2	1,645.0	2,062.9	1,798.8	1,882.7	2,363.1	2,328.6	5.3
Eastern Europe	246.8	337.5	408.9	538.6	586.8	712.2	1,074.5	995.1	1,331.2	1,388.5	2,087.0	18.1
Middle East	400.5	474.3	555.7	656.9	636.8	680.7	933.5	817.1	933.9	951.8	1,563.7	12.6
North and Central America	4,337.4	5,019.2	5,577.1	6,440.2	7,346.4	7,633.1	9,284.7	11,196.8	11,339.7	12,128.6	13,496.9	8.6
Oceania	209.3	251.9	299.8	418.8	595.0	643.2	598.1	669.3	737.0	848.2	895.5	11.0
South America	849.6	1,028.9	1,282.3	1,593.3	1,782.8	1,802.0	2,051.8	2,163.0	2,622.7	2,353.5	4,121.8	15.9
Western Europe	2,714.1	3,018.5	3,408.1	4,082.0	5,092.2	5,542.1	6,695.7	5,858.4	6,488.2	7,204.8	8,723.5	7.6
Total for All Countries 16/	11,513.3	13,615.6	15,888.8	19,325.1	22,753.1	24,249.9	28,515.4	30,134.8	33,286.8	35,988.3	42,664.3	10.3 %
North and Central America as Percent of Total	37.7%	36.9%	35.1%	33.3%	32.3%	31.5%	32.6%	37.2%	34.1%	33.7%	31.6%	
Western Europe as Percent of Total	23.6%	22.2%	21.4%	21.1%	22.4%	22.9%	23.5%	19.4%	19.5%	20.0%	20.4%	
Other Regions of the World as Percent of Total	38.8%	41.0%	43.4%	45.6%	45.3%	45.7%	44.0%	43.4%	46.4%	46.3%	47.9%	

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 Billed Minutes	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Annual Growth Rates 1999 to 2003 7/
Africa	70.2	82.4	89.7	88.2	99.7	121.3	110.0	134.6	149.2	113.9	218.7	12.8 %
Antarctica and Maritime	2.9	2.1	1.5	5.3	0.9	0.0	6.4	0.1	0.1	0.5	0.0	n.m.
Asia	810.7	890.4	961.2	1,025.8	1,070.5	1,134.1	989.8	1,210.6	1,244.8	1,341.5	1,993.1	16.2
Caribbean	276.7	297.4	351.3	368.8	353.5	364.5	357.3	481.8	461.2	569.8	534.1	10.2
Eastern Europe	115.0	121.3	119.5	125.2	127.1	148.6	107.8	124.0	158.7	110.1	147.9	5.3
Middle East	149.5	152.3	168.0	177.6	231.0	302.3	353.7	373.0	377.2	404.4	431.5	4.9
North and Central America	2,383.1	2,660.6	2,982.3	3,900.5	4,201.3	4,570.3	5,224.4	6,979.1	7,078.6	6,192.9	6,890.9	4.4
Oceania	179.2	204.8	211.2	222.3	214.7	340.0	539.5	387.8	346.9	372.7	396.5	-6.3
South America	240.7	291.2	354.4	388.5	457.6	491.3	455.6	550.7	570.2	653.0	796.4	13.7
Western Europe	1,536.5	1,655.4	1,811.6	1,971.5	2,389.2	2,712.4	2,611.2	2,635.0	3,078.4	3,903.3	4,252.4	14.7
Total for All Countries 16/	5,786.0	6,384.9	7,050.6	8,293.2	9,170.0	10,198.5	10,765.0	12,888.2	13,478.0	13,676.8	15,674.0	8.4 %
North and Central America as Percent of Total	41.2%	41.7%	42.3%	47.0%	45.8%	44.8%	48.5%	54.2%	52.5%	45.3%	44.0%	
Western Europe as Percent of Total	26.6%	25.9%	25.7%	23.8%	26.1%	26.6%	24.3%	20.4%	22.8%	28.5%	27.1%	
Other Regions of the World as Percent of Total	32.3%	32.4%	32.0%	29.2%	28.1%	28.6%	27.2%	25.4%	24.6%	26.2%	28.9%	

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	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Africa	\$323.7	\$405.9	\$524.5	\$566.0	\$607.5	\$626.7	\$645.4	\$417.9	\$413.1	\$352.1	440.7
Antarctica and Maritime	122.1	86.5	38.8	30.6	39.2	27.7	12.7	5.1	8.3	4.7	5.2
Asia	2,540.9	2,791.9	3,346.5	3,478.4	3,863.0	3,387.5	3,102.7	3,203.1	2,643.0	2,347.0	1,631.6
Caribbean	753.6	873.3	1,058.4	1,063.9	1,024.9	1,081.8	984.3	796.6	604.2	600.2	551.4
Eastern Europe	345.7	439.3	496.8	551.0	600.6	497.1	592.7	503.9	424.3	299.6	352.6
Middle East	544.2	578.6	685.9	693.4	686.8	617.6	664.0	519.5	437.4	316.8	393.4
North and Central America	2,940.9	3,110.5	3,333.9	3,410.3	3,680.5	3,602.1	3,853.8	4,749.9	2,868.6	3,022.6	2,121.8
Oceania	284.0	304.1	340.9	361.4	315.2	321.5	359.5	369.6	307.1	252.7	236.5
South America	927.8	1,055.5	1,306.5	1,351.7	1,468.4	1,300.4	1,271.8	1,033.4	797.4	588.1	665.8
Western Europe	2,699.7	2,764.1	2,916.4	2,723.1	2,939.8	2,770.7	3,029.7	2,562.4	2,332.2	1,655.5	2,000.6
Total for All Countries 16/	11,504.5	12,430.9	14,159.8	14,234.1	15,250.4	14,246.4	14,527.6	14,172.2	10,844.4	9,446.4	8,401.7
North and Central America as Percent of Total	25.6%	25.0%	23.5%	24.0%	24.1%	25.3%	26.5%	33.5%	26.5%	32.0%	25.3%
Western Europe as Percent of Total	23.5%	22.2%	20.6%	19.1%	19.3%	19.4%	20.9%	18.1%	21.5%	17.5%	23.8%
Other Regions of the World as Percent of Total	51.0%	52.7%	55.9%	56.9%	56.6%	55.3%	52.6%	48.4%	52.0%	50.5%	50.9%

See notes at the end of the tables.

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

Average Revenue per Minute	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	10 Year Decline
Africa	\$1.38	\$1.34	\$1.29	\$1.08	\$1.01	\$0.81	\$0.71	\$0.57	\$0.40	\$0.29	\$0.21	-85 %
Antarctica and Maritime	10.25	8.37	4.37	6.97	3.80	1.67	3.61	3.83	3.73	1.92	1.48	-86
Asia	1.45	1.25	1.17	0.92	0.82	0.71	0.64	0.55	0.38	0.31	0.22	-85
Caribbean	1.02	0.96	0.97	0.84	0.75	0.66	0.48	0.44	0.32	0.25	0.24	-77
Eastern Europe	1.40	1.30	1.21	1.02	1.02	0.70	0.55	0.51	0.32	0.22	0.17	-88
Middle East	1.36	1.22	1.23	1.06	1.08	0.91	0.71	0.64	0.47	0.33	0.25	-81
North and Central America	0.68	0.62	0.60	0.53	0.50	0.47	0.42	0.42	0.25	0.25	0.16	-77
Oceania	1.36	1.21	1.14	0.86	0.53	0.50	0.60	0.55	0.42	0.30	0.26	-81
South America	1.09	1.03	1.02	0.85	0.82	0.72	0.62	0.48	0.30	0.25	0.16	-85
Western Europe	0.99	0.92	0.86	0.67	0.58	0.50	0.45	0.44	0.36	0.23	0.23	-77
Total for All Countries 16/	1.00	0.91	0.89	0.74	0.67	0.59	0.51	0.47	0.33	0.26	0.20	-80 %

See notes at the end of the tables.

Table 19
U.S. Billed Revenues for International Private Line Service 1/
By Region of the World
(In Millions)

Private Line Revenues	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Africa	\$8.3	\$4.4	\$4.7	\$6.9	\$10.4	\$14.6	\$23.3	\$41.3	\$40.3	\$35.3	9.038696
Antarctica and Maritime	0.2	0.9	0.2	6.6	6.0	8.7	11.7	12.6	17.9	19.8	8.639508
Asia	93.7	109.5	125.4	169.1	229.5	308.6	462.9	557.5	565.9	336.0	220.1695
Caribbean	10.6	9.8	14.4	24.6	27.7	26.5	35.0	48.4	48.2	40.5	36.55041
Eastern Europe	1.9	8.8	9.6	16.6	16.2	22.9	34.5	21.8	16.7	12.1	6.512249
Middle East	7.2	7.5	9.1	13.6	14.2	19.6	31.6	32.4	35.9	28.6	26.61094
North and Central America	62.7	83.1	96.9	101.9	114.3	117.3	178.8	238.4	208.6	144.0	113.3061
Oceania	23.3	29.9	33.2	38.3	53.4	61.2	104.7	123.9	102.0	66.8	48.12719
South America	22.3	28.7	34.1	50.0	63.4	96.9	120.6	177.6	162.6	137.2	52.72669
Western Europe	136.0	158.3	186.4	232.3	314.9	244.8	212.4	247.7	219.1	167.0	97.76609
Total for All Countries 16/	366.1	440.9	514.2	660.7	850.9	921.5	1,215.9	1,501.9	1,417.4	988.1	620.5

See notes at the end of the tables.

Table 20
Selected Prepaid Calling Card Rates for 7-Minute Calls 25/ 33/
As of June 2005

	Americatel 26/	AT&T		IDT/Uniontelecard		MCI		Radiant		Sprint 32/	Lowest of Cards Shown
		USPS 27/	Sams Club Card 27/	Super Clean 28/	Simple Asia USA 28/ 29/	Minute Pass 30/	Costco Card 30/	Clear Connect 31/	World 4Less 31/		
Australia	\$9.07	\$1.88	\$1.18	\$0.27	\$0.21	\$1.40	\$0.77	\$0.30	\$0.35	\$1.40	\$0.21
Brazil	\$3.06	\$2.34	\$1.47	\$0.47	\$0.63	\$2.52	\$1.40	\$0.43	\$0.35	\$3.50	\$0.35
Canada	\$9.07	\$1.42	\$0.89	\$0.24	\$0.13	\$0.77	\$0.49	\$0.35	\$0.21	\$0.35	\$0.13
China	\$3.33	\$1.88	\$1.18	\$0.03	\$0.13	\$2.10	\$1.40	\$0.47	\$0.21	\$1.75	\$0.03
Colombia	\$2.25	\$2.81	\$1.77	\$0.61	\$0.82	\$2.45	\$1.68	\$0.45	\$0.42	\$2.31	\$0.42
Dominican Republic	\$9.07	\$2.81	\$1.77	\$0.59	\$0.84	\$1.89	\$1.12	\$0.82	\$0.42	\$1.12	\$0.42
Egypt	\$9.07	\$5.61	\$3.53	\$1.41	\$1.85	\$5.46	\$2.73	\$1.17	\$1.40	\$4.41	\$1.17
El Salvador	\$3.05	\$3.74	\$2.35	\$0.88	\$1.20	\$2.73	\$1.89	\$1.40	\$0.63	\$3.50	\$0.63
France	\$9.07	\$1.88	\$1.18	\$0.27	\$0.18	\$1.05	\$0.84	\$0.38	\$0.21	\$0.49	\$0.18
Germany	\$9.07	\$1.88	\$1.18	\$0.27	\$0.19	\$0.98	\$0.84	\$0.39	\$0.21	\$0.42	\$0.19
Greece	\$9.07	\$1.88	\$1.18	\$0.31	\$0.26	\$1.82	\$1.05	\$0.59	\$0.42	\$2.80	\$0.26
Guatemala	\$3.67	\$4.21	\$2.65	\$0.88	\$1.40	\$3.78	\$2.24	\$1.52	\$0.70	\$3.50	\$0.70
Haiti	\$3.88	\$7.01	\$4.41	\$1.59	\$2.52	\$5.81	\$4.06	\$1.67	\$0.77	\$4.76	\$0.77
Hong Kong	\$9.07	\$2.34	\$1.47	\$0.27	\$0.13	\$1.19	\$0.70	\$0.33	\$0.28	\$1.26	\$0.13
India	\$9.07	\$4.67	\$2.94	\$1.25	\$1.95	\$8.05	\$4.55	\$0.80	\$0.98	\$2.10	\$0.80
Israel	\$9.07	\$2.34	\$1.47	\$0.27	\$0.38	\$1.75	\$1.75	\$0.48	\$0.21	\$1.40	\$0.21
Italy	\$9.07	\$1.88	\$1.18	\$0.27	\$0.19	\$1.26	\$0.91	\$0.38	\$0.21	\$0.35	\$0.19
Jamaica	\$8.02	\$0.48	\$0.30	\$0.72	\$0.57	\$4.55	\$2.52	\$1.21	\$0.56	\$1.12	\$0.30
Japan	\$9.07	\$1.88	\$1.18	\$0.32	\$0.16	\$1.47	\$0.84	\$0.52	\$0.35	\$0.42	\$0.16
Korea, Republic of	\$9.07	\$2.81	\$1.77	\$0.27	\$0.13	\$1.61	\$0.84	\$0.47	\$0.35	\$2.10	\$0.13
Mexico	\$3.26	\$2.81	\$1.77	\$0.54	\$0.96	\$2.24	\$1.33	\$0.53	\$0.56	\$0.49	\$0.49
Morocco	\$9.07	\$7.47	\$4.70	\$1.76	\$2.86	\$7.70	\$3.43	\$2.50	\$1.75	\$3.50	\$1.75
Netherlands	\$9.07	\$2.34	\$1.47	\$0.27	\$1.68	\$0.98	\$0.91	\$0.34	\$0.35	\$1.40	\$0.27
Nigeria	\$9.07	\$3.28	\$2.06	\$0.64	\$1.01	\$7.84	\$4.20	\$0.86	\$0.84	\$5.60	\$0.64
Pakistan	\$9.07	\$6.55	\$4.12	\$1.59	\$1.93	\$7.70	\$3.43	\$1.40	\$1.40	\$5.25	\$1.40
Peru	\$2.46	\$2.34	\$1.47	\$0.44	\$0.57	\$3.50	\$2.45	\$1.13	\$0.49	\$3.50	\$0.44
Philippines	\$9.07	\$5.15	\$3.24	\$1.41	\$1.58	\$2.80	\$1.75	\$1.67	\$0.56	\$1.89	\$0.56
Poland	\$9.07	\$2.34	\$1.47	\$0.32	\$0.26	\$1.96	\$1.12	\$0.70	\$0.21	\$2.10	\$0.21
Russia	\$9.07	\$2.34	\$1.47	\$0.44	\$0.57	\$2.80	\$1.82	\$0.72	\$0.35	\$3.50	\$0.35
Saudi Arabia	\$9.07	\$4.67	\$2.94	\$1.28	\$1.51	\$5.60	\$3.29	\$1.05	\$1.05	\$4.90	\$1.05
Sierra Leone	\$9.07	\$5.61	\$3.53	\$1.76	\$1.89	\$8.40	\$4.83	\$1.40	\$1.40	\$5.60	\$1.40
Singapore	\$9.07	\$1.88	\$1.18	\$0.24	\$0.95	\$1.26	\$0.63	\$0.35	\$0.35	\$1.40	\$0.24
South Africa	\$9.07	\$7.47	\$4.70	\$0.58	\$0.76	\$4.20	\$2.03	\$0.82	\$0.70	\$3.50	\$0.58
Spain	\$4.43	\$6.55	\$4.12	\$0.24	\$0.19	\$1.12	\$0.91	\$0.41	\$0.21	\$1.40	\$0.19
Switzerland	\$9.07	\$6.55	\$4.12	\$0.24	\$0.21	\$1.12	\$0.63	\$0.35	\$0.35	\$1.05	\$0.21
Taiwan	\$9.07	\$6.55	\$4.12	\$0.27	\$0.13	\$1.54	\$0.77	\$0.46	\$0.35	\$1.75	\$0.13
Thailand	\$9.07	\$2.81	\$1.77	\$0.44	\$0.32	\$3.36	\$2.03	\$1.17	\$0.56	\$4.20	\$0.32
Turkey	\$9.07	\$3.74	\$2.35	\$0.88	\$1.20	\$4.13	\$2.38	\$1.40	\$0.63	\$3.50	\$0.63
United Kingdom	\$9.07	\$1.88	\$1.18	\$0.24	\$0.13	\$0.98	\$0.77	\$0.31	\$0.14	\$0.35	\$0.13
Vietnam	\$9.07	\$8.41	\$5.29	\$1.76	\$2.52	\$13.86	\$7.70	\$3.90	\$3.36	\$6.23	\$1.76
Weighted Average Price per Minute for Rates Shown	\$1.02	\$0.42	\$0.26	\$0.08	\$0.10	\$0.34	\$0.21	\$0.10	\$0.06	\$0.22	\$0.05

See notes at the end of the tables.

Table 21
Private Line Revenue per 64 Kbps Equivalent Circuit 34/
For Canada & Mexico, Europe, Asia and Other Points

	Canada & Mexico		Western Europe		Asia		Other World Points		Total All Points	
	Equivalent 64 Kbps Circuits	Revenue Per Circuit	Equivalent 64 Kbps Circuits	Revenue Per Circuit	Equivalent 64 Kbps Circuits	Revenue Per Circuit	Equivalent 64 Kbps Circuits	Revenue Per Circuit	Equivalent 64 Kbps Circuits	Revenue Per Circuit
1996	62,557	\$1,725	29,957	\$9,833	14,751	\$15,775	11,442	\$18,311	118,707	\$6,883
1997	73,140	\$1,489	46,795	\$8,206	27,130	\$10,961	16,178	\$14,877	163,243	\$6,036
1998	104,380	\$1,145	57,725	\$4,680	57,128	\$7,319	25,694	\$13,207	244,927	\$4,562
1999	124,042	\$1,352	53,557	\$3,674	101,608	\$5,788	54,275	\$9,576	333,482	\$4,153
2000	305,940	\$915	138,054	\$2,582	167,728	\$3,970	75,519	\$7,703	687,241	\$2,897
2001	315,808	\$569	307,016	\$985	468,956	\$1,778	92,042	\$5,438	1,183,822	\$1,515
2002	251,117	\$440	653,948	\$347	923,794	\$482	84,587	\$4,081	1,913,446	\$638
2003	214,922	\$411	582,282	\$158	923,669	\$238	119,588	\$2,024	1,840,461	\$331

See notes at the end of the tables.

Table 22
Accounting Rates for Peak-Period
International Telephone Service Calls
For Selected International Points 18/ 19/

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Australia	0.55 SDR	0.4 SDR	0.4 SDR	0.308 SDR								
Brazil	\$1.40	\$1.27	\$1.14	\$1.03	\$0.85	\$0.65	\$0.60	\$0.38				
Canada	\$0.28											
China	6.5 GF	6.0 GF	5.5 GF	4.5 GF	3.8 GF	3.1 GF	0.74 SDR	0.56 SDR	\$0.40	\$0.36	\$0.36	
Colombia	\$1.50	\$1.40	\$1.30	\$1.25	\$1.00	\$0.80	\$0.65	\$0.55	\$0.38			
Dominican Republic	\$1.29	\$1.30	\$1.10	\$0.90	\$0.70	\$0.60	\$0.38	\$0.38				
Egypt	\$1.60	\$1.50	\$1.40	\$1.40	\$1.30	\$1.30	\$1.10	\$0.70				
El Salvador	\$1.25	\$1.20	\$1.20	\$1.10	\$0.88	\$0.77	\$0.60	\$0.48	\$0.38			
France	0.7 SDR	0.42 SDR	0.36 SDR	0.24 SDR	0.19 SDR							
Germany	0.6 SDR	0.34 SDR	0.26 SDR	0.16 SDR	0.15 SDR							
Greece	1.12 SDR	.95 SDR	.85 SDR	0.7 SDR	0.63 SDR	0.4 SDR	0.22 SDR					
Guatemala	\$1.30	\$1.20	\$1.18	\$1.00	\$0.90	\$0.77	\$0.64	\$0.51				
Haiti	\$1.30	\$1.25	\$1.20	\$1.20	\$1.20	\$1.20	\$1.00	\$0.92	\$0.70	\$0.60	\$0.46	
Hong Kong	\$1.20	\$1.00	\$1.00	.65 SDR	.58 SDR	.52 SDR						
India	\$1.90	\$1.80	\$1.80	\$1.60	\$1.42	\$1.28	\$1.08	\$0.85	\$0.68	\$0.46	\$0.46	
Israel	\$2.16	\$2.16	\$1.90	\$1.18	\$0.70	\$0.59						
Italy	1.1 SDR	0.82 SDR	0.48 SDR	0.36 SDR	0.24 SDR							
Jamaica	\$1.50	\$1.40	\$1.40	\$1.30	\$1.25	\$1.25	\$1.05	\$0.60				
Japan	0.75 SDR	0.63 SDR	0.63 SDR	0.63 SDR	0.63 SDR							
Korea, Rep.	\$1.44	0.95 SDR	0.85 SDR	0.85 SDR	0.72 SDR	\$0.85	\$0.71	\$0.51				
Mexico 20/	\$0.68	\$0.58	\$0.53	\$0.485	\$0.395	\$0.37	\$0.19	\$0.19	\$0.19	\$0.19	\$0.19	
Morocco	2.2 SDR	2.2 SDR	1.2 SDR	1.0 SDR	0.8 SDR	0.6 SDR	0.6 SDR	0.6 SDR	0.3 SDR			
Netherlands	0.5 SDR	0.4 SDR	0.25 SDR	0.25 SDR	0.2 SDR							
Nigeria	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.40	\$1.15	0.6 SDR	0.4 SDR			
Pakistan	\$2.30	\$2.30	\$2.30	\$2.20	\$2.00	\$1.20	\$1.20	\$0.84	\$0.54	\$0.42	\$0.42	
Peru	\$1.40	\$1.30	\$1.30	\$1.23	\$1.00	\$0.85	\$0.66	\$0.50	\$0.38			
Philippines	\$1.68	\$1.34	\$1.23	\$1.00	\$1.00	\$0.72	\$0.57					
Poland	\$1.25	\$1.20	\$1.15	\$0.95	\$0.70	\$0.55	\$0.38					
Russia	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60	
Saudia Arabia	\$2.20	\$2.20	\$2.20	\$2.20	1.5 SDR	1.25 SDR	1.0 SDR	\$0.28	\$0.28	\$0.28	\$0.28	
Sierra Leone	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	0.6 SDR	0.6 SDR	\$0.56	\$0.56	\$0.56
Singapore	0.62 SDR	0.62 SDR	0.62 SDR	0.62 SDR	0.62 SDR	0.38 SDR						
South Africa	\$1.50	\$1.20	\$1.20	\$1.00	\$1.00	\$0.80	\$0.70	\$0.60				
Spain	1.3 SDR	1.2 SDR	1.0 SDR	.44 SDR	.35 SDR	0.2 SDR						
Switzerland	.61 SDR	0.61 SDR	0.35 SDR	0.35 SDR	0.25 SDR							
Taiwan	\$1.20	\$1.20	\$1.20	\$1.20	\$1.14	\$0.45	\$0.30	\$0.30	\$0.30			
Thailand	\$1.60	\$1.60	\$1.55	\$1.50	\$1.20	\$0.90	\$0.60	\$0.48				
Turkey	1.2 SDR	1.2 SDR	1.1 SDR	0.8 SDR	0.6 SDR	.55 SDR	.48 SDR	0.32 SDR	\$0.38			
United Kingdom	0.44 SDR											
Vietnam	\$2.30	\$2.30	\$2.30	\$2.30	\$2.30	\$2.30	1.15 SDR	1.0 SDR	0.9 SDR			

See notes at the end of the tables.

Table 23
Dollar Equivalent Accounting Rates for Peak-Period
International Telephone Service Calls
For Selected International Points 18/ 19/

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Australia	\$0.76	\$0.59	\$0.59	\$0.45								
Brazil	1.40	1.27	1.14	1.03	\$0.85	\$0.65	\$0.60	\$0.38				
Canada	0.28											
China	2.93	2.91	2.67	2.13	1.69	1.40	1.01	0.72	\$0.40	\$0.36	\$0.36	
Colombia	1.50	1.40	1.30	1.25	1.00	0.80	0.65	0.55	0.38			
Dominican Republic	1.29	1.30	1.10	0.90	0.70	0.60	0.38	0.38				
Egypt	1.60	1.50	1.40	1.40	1.30	1.30	1.10	0.70				
El Salvador	1.25	1.20	1.20	1.10	0.88	0.77	0.60	0.48	0.38			
France	0.97	0.62	0.54	0.35	0.26							
Germany	0.83	0.51	0.39	0.23	0.20							
Greece	1.55	1.41	1.26	1.01	0.86	0.55	0.30					
Guatemala	1.30	1.20	1.18	1.00	0.90	0.77	0.64	0.51				
Haiti	1.30	1.25	1.20	1.20	1.20	1.20	1.00	0.92	0.70	0.60	0.46	
Hong Kong	1.20	1.00	1.00	0.94	0.79	0.72						
India	1.90	1.80	1.80	1.60	1.42	1.28	1.08	0.85	0.68	0.46	0.46	
Israel	2.16	2.16	1.90	1.18	0.70	0.59						
Italy	1.51	1.22	0.71	0.52	0.33							
Jamaica	1.50	1.40	1.40	1.30	1.25	1.25	1.05	0.60				
Japan	1.04	0.94	0.94	0.91	0.86							
Korea, Rep.	1.44	1.41	1.26	1.23	0.98	0.85	0.71	0.51				
Mexico 20/	0.68	0.58	0.53	0.485	0.395	0.37	0.19	0.19	0.19	0.19	0.19	
Morocco	3.04	3.27	1.78	1.45	1.09	0.83	0.82	0.77	0.38			
Netherlands	0.69	0.59	0.37	0.36	0.27							
Nigeria	1.50	1.50	1.50	1.50	1.50	1.40	1.15	0.77	0.51			
Pakistan	2.30	2.30	2.30	2.20	2.00	1.20	1.20	0.84	0.54	0.42	0.42	
Peru	1.40	1.30	1.30	1.23	1.00	0.85	0.66	0.50	0.38			
Philippines	1.68	1.34	1.23	1.00	1.00	0.72	0.57					
Poland	1.25	1.20	1.15	0.95	0.70	0.55	0.38					
Russia	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	
Saudia Arabia	2.20	2.20	2.20	2.20	2.03	1.73	1.37	0.28	0.28	0.28	0.28	
Sierra Leone	1.50	1.50	1.50	1.50	1.50	1.50	1.50	0.77	0.76	0.56	0.56	0.56
Singapore	0.86	0.92	0.92	0.90	0.85	0.52						
South Africa	1.50	1.20	1.20	1.00	1.00	0.80	0.70	0.60				
Spain	1.80	1.78	1.44	0.64	0.48	0.26						
Switzerland	0.84	0.91	0.52	0.51	0.34							
Taiwan	1.20	1.20	1.20	1.20	1.14	0.45	0.30	0.30	0.30			
Thailand	1.60	1.60	1.55	1.50	1.20	0.90	0.60	0.48				
Turkey	1.66	1.78	1.63	1.16	0.82	0.76	0.66	0.41	0.38			
United Kingdom	0.61											
Vietnam	2.30	2.30	2.30	2.30	2.30	2.30	1.58	1.27	1.28			
Fisher Ideal Rate Index 17/ % changes from Prior Rate	60.5 -7.6%	52.0 -14.1%	48.3 -7.2%	43.2 -10.5%	38.2 -11.7%	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
Index without Mexico % changes from Prior Rate	58.2 -8.2%	50.0 -14.1%	46.4 -7.3%	41.2 -11.2%	36.7 -10.8%	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.

See notes at the end of the tables.

Table 24
Revenues for Facilities-Based and Facilities-Resale
International Message Telephone Service
For Selected Carriers 1/
(In Millions)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
ABS-CBN Telecom North America, Inc.						*	\$6	\$9	\$5	*	\$3
ACC Global Corp.			\$1	\$2	\$1						
Alascom, Inc.	\$15	\$16	10								
American Samoa Telecomm. Authority	3	4	3	3	3	2	2	2	2	\$2	\$2
Andrew Telecom, Inc.						1	1				
AT&T Corp.	7,482	7,984	8,425	8,559	8,351	7,533	6,755	5,444	5,790	5,477	4,298
BellSouth Corporation							8	18			
Cable & Wireless, Inc.			7	12	14	10		66	70	1	
Communication TeleSys. Int'l./WorldxChange			6	17	123	159	25				
DirectNet Telecommunications				1	3	7	10				
Esprit Telecom (U.K.), Ltd.			1	7							
fONOROLA Corporation	10	19	20	20	31						
Golden Pages (Jersey) Ltd.				21							
GTE Corporation	26	25	28	27	26	55	51				
Harris Corporation	64	*	*	2	2	1	*	*	*	*	1
IDT Corporation					*	3	23	21	119	129	327
International Telecommunications Corp.			11								
IT&E Overseas, Inc.	38	37	39	40	32	26	19	15	10	8	7
Japan Telecom America, Inc.						1	3	2			
KDD America, Inc.						1	2	11	10	10	9
KPN-INS, Inc.							16	12	30	15	16
LC Communications - Int'l. Telecom Inc							3	4			
Masatepe Communications, U.S.A., L.L.C.						1	1				
MCC Communications, Inc.											
MCI, Inc. 21/	2,779	2,952	3,968	3,550	4,243	4,298	5,056	6,818	2,876	2,116	1,766
MFS International			1								
Micronesian Telecommunications Corp.	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	204	134	129	147
RSL Communications, Ltd.				21	26	54	107	80			
SBC Telecommunications, Inc.							2	7			
Sprint	1,048	1,229	1,289	1,493	1,478	1,421	1,379	1,188	1,386	1,185	1,479
Star Telecommunications, Inc.					59	132	140				
Startec Global Communications Corp.	2	3	4	7	6	8	75	91	60	14	11
St. Thomas & San Juan Telephone Co. Inc.	9	2									
Telecom New Zealand Limited					2	43					
Telefonica Larga Distancia, Inc.	11	18	26	19	16	20	19	13	8	6	5
Teleglobe USA Inc.					3						
Telstra Incorporated							*	20			
TerraLink Communications, Ltd.				2							
TresCom International, Inc.			1	4	10	14					
TRICOM USA, Inc.					7	13	31	53	65	76	n.a.
TRT/FTC Communications, Inc.											
U.S. Long Distance, Inc.			1								
Verizon Communications, Inc.								55	71	141	n.a.
Viatel, Inc.			1	6	32	63	212				
Western Union International											
World Access (Facicom Int'l.)				4	75	167	276	33			
World Communications, Inc.											
WorldCom, Inc. d/b/a LDDS WorldCom	1	124	291	364	500						
Total for Carriers Not Shown Above		*	1	2	3	2	3	6	210	137	331
Total for All Carriers	\$11,505	\$12,431	\$14,160	\$14,234	\$15,250	\$14,246	\$14,528	\$14,172	\$10,844	\$9,446	\$8,402
HHI Index 22/	4,897	4,789	4,413	4,354	3,880	3,811	3,474	3,864	3,723	4,028	3,392

See notes at the end of the tables.

Table 25
Shares of Facilities-Based and Facilities-Resale
International Message Telephone Service Revenues
For Selected Carriers 1/

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
ABS-CBN Telecom North America, Inc.						0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
ACC Global Corp.			0.0%	0.0%	0.0%						
Alascom, Inc.	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%	0.0%	0.0%
Andrew Telecom, Inc.						0.0%	0.0%				
AT&T Corp.	65.0%	64.2%	59.5%	60.1%	54.8%	52.9%	46.5%	38.4%	53.4%	58.0%	51.2%
Cable & Wireless, Inc.			0.0%	0.1%	0.1%	0.1%		0.5%	0.6%	0.0%	
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%							
fONOROLA Corporation	0.1%	0.2%	0.1%	0.1%	0.2%						
Golden Pages (Jersey) Ltd.				0.1%							
GTE Corporation	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%	0.0%	0.0%	0.0%	0.0%
IDT Corporation					0.0%	0.0%	0.2%	0.1%	1.1%	1.4%	3.9%
IT&E Overseas, Inc.	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
Japan Telecom America, Inc.						0.0%	0.0%	0.0%			
KDD America, Inc.						0.0%	0.0%	0.1%	0.1%	0.1%	0.1%
Masatepe Communications, U.S.A., L.L.C.						0.0%	0.0%				
MCC Communications, Inc.											
MCI, Inc. 21/	24.2%	23.8%	28.0%	24.9%	27.8%	30.2%	34.8%	48.1%	26.5%	22.4%	21.0%
MFS International			0.0%								
Micronesian Telecommunications Corp.	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%	1.4%	1.2%	1.4%	1.8%
RSL Communications, Ltd.				0.1%	0.2%	0.4%	0.7%	0.6%			
SBC Telecommunications, Inc.							0.0%	0.1%			
Sprint	9.1%	9.9%	9.1%	10.5%	9.7%	10.0%	9.5%	8.4%	12.8%	12.5%	17.6%
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%	0.6%	0.5%	0.1%	0.1%
St. Thomas & San Juan Telephone Co. Inc.	0.1%	0.0%									
Telecom New Zealand Limited					0.0%	0.3%					
Telefonica Larga Distancia, Inc.	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Teleglobe USA Inc.					0.0%						
Telstra Incorporated							0.0%	0.1%			
TerraLink Communications, Ltd.				0.0%							
TresCom International, Inc.			0.0%	0.0%	0.1%	0.1%					
TRICOM USA, Inc.					0.0%	0.1%	0.2%	0.4%	0.6%	0.8%	n.a.
TRT/FTC Communications, Inc.											
U.S. Long Distance, Inc.			0.0%								
Verizon Communications, Inc.								0.4%	0.7%	1.5%	n.a.
Viatel, Inc.			0.0%	0.0%	0.2%	0.4%	1.5%				
Western Union International											
World Access (Facicom Int'l.)				0.0%	0.5%	1.2%	1.9%	0.2%			
World Communications, Inc.											
WorldCom, Inc. d/b/a LDDS WorldCom	0.0%	1.0%	2.1%	2.6%	3.3%						

Table 26
Shares of International Message Telephone Service
Including Pure Resale and End-User Revenues
For Selected Carriers 1/
(In Millions)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Facilities-Based and Facilities-Resale Service											
Billed Revenues											
AT&T	\$7,482	\$7,985	\$8,425	\$8,559	\$8,351	\$7,533	\$6,755	\$5,444	\$5,790	\$5,477	\$4,298
MCI, Inc. 21/	2,779	2,952	3,968	3,550	4,243	4,298	5,056	6,818	2,876	2,116	1,766
Sprint	1,048	1,229	1,289	1,493	1,478	1,421	1,379	1,188	1,386	1,185	1,479
WorldCom	64	124	291	364	500	--	--	--	--	--	--
All Other	132	141	187	268	678	994	1,337	721	793	668	859
Total All Carriers	11,505	12,431	14,160	14,234	15,250	14,246	14,528	14,172	10,844	9,446	8,402
Shares of Billed Revenues											
AT&T	65.0%	64.2%	59.5%	60.1%	54.8%	52.9%	46.5%	38.4%	53.4%	58.0%	51.2%
MCI, Inc. 21/	24.2%	23.7%	28.0%	24.9%	27.8%	30.2%	34.8%	48.1%	26.5%	22.4%	21.0%
Sprint	9.1%	9.9%	9.1%	10.5%	9.7%	10.0%	9.5%	8.4%	12.8%	12.5%	17.6%
WorldCom	0.6%	1.0%	2.1%	2.6%	3.3%	--	--	--	--	--	--
All Other	1.1%	1.1%	1.3%	1.9%	4.4%	7.0%	9.2%	5.1%	7.3%	7.1%	10.2%
HHI Index 22/	4,897	4,789	4,413	4,354	3,880	3,811	3,474	3,864	3,723	4,028	3,392
Pure Resale Service											
Billed Revenues											
AT&T	\$0	\$0	\$0	\$0	\$43	\$206	\$254	\$2,484	\$1,283	\$764	\$466
MCI, Inc. 21/	34	56	52	42	39	683	618	429	225	282	285
Sprint	28	57	68	87	95	89	244	187	175	184	169
WorldCom	50	214	188	411	301	--	--	--	--	--	--
All Other	479	793	1,446	3,096	3,633	3,820	3,412	4,266	3,658	3,871	4,831
Total All Carriers	591	1,120	1,754	3,636	4,111	4,798	4,528	7,366	5,341	5,100	5,750
Shares of Billed Revenues											
AT&T	0.0%	0.0%	0.0%	0.0%	1.0%	4.3%	5.6%	33.7%	24.0%	15.0%	8.1%
MCI, Inc. 21/	5.8%	5.0%	3.0%	1.2%	0.9%	14.2%	13.7%	5.8%	4.2%	5.5%	5.0%
Sprint	4.8%	5.1%	3.9%	2.4%	2.3%	1.9%	5.4%	2.5%	3.3%	3.6%	2.9%
WorldCom	8.5%	19.1%	10.7%	11.3%	7.3%	--	--	--	--	--	--
All Other	81.0%	70.8%	82.4%	85.1%	88.4%	79.6%	75.4%	57.9%	68.5%	75.9%	84.0%
All International Telephone Service											
Billed Revenues											
AT&T	\$7,482	\$7,985	\$8,425	\$8,559	\$8,394	\$7,739	\$7,009	\$7,929	\$7,073	\$6,241	\$4,764
MCI, Inc. 21/	2,813	3,008	4,020	3,592	4,282	4,981	5,675	7,247	3,101	2,397	2,051
Sprint	1,076	1,285	1,357	1,580	1,573	1,510	1,623	1,376	1,561	1,369	1,647
WorldCom	114	338	479	775	801	--	--	--	--	--	--
All Other	610	934	1,633	3,364	4,311	4,814	4,749	4,987	4,451	4,540	5,690
Total All Carriers	12,096	13,551	15,914	17,870	19,361	19,044	19,055	21,538	16,186	14,547	14,152
Shares of Billed Revenues											
AT&T	61.9%	58.9%	52.9%	47.9%	43.4%	40.6%	36.8%	36.8%	43.7%	42.9%	33.7%
MCI, Inc. 21/	23.3%	22.2%	25.3%	20.1%	22.1%	26.2%	29.8%	33.6%	19.2%	16.5%	14.5%
Sprint	8.9%	9.5%	8.5%	8.8%	8.1%	7.9%	8.5%	6.4%	9.6%	9.4%	11.6%
WorldCom	0.9%	2.5%	3.0%	4.3%	4.1%	--	--	--	--	--	--
All Other	5.0%	6.9%	10.3%	18.8%	22.3%	25.3%	24.9%	23.2%	27.5%	31.2%	40.2%
Lower Bound HHI Index 22/ 23/	4,447	4,061	3,523	2,795	2,452	2,398	2,312	2,528	2,370	2,201	1,479
Upper Bound HHI Index 22/ 23/	4,456	4,077	3,558	2,913	2,617	2,611	2,519	2,707	2,622	2,525	2,017
End-User International Telephone Service 4/											
Largest Carriers Shown Above											
Other Carriers	\$11,259	\$12,076	\$13,519	\$12,916	\$13,506	\$12,319	\$12,606	\$12,415	\$9,153	\$7,687	\$6,132
Total All Carriers	305	467	816	1,682	2,156	2,407	2,374	2,494	2,225	2,270	2,845
Total All Carriers	11,564	12,543	14,335	14,598	15,661	14,726	14,980	14,909	11,379	9,956	8,977
Revenue per Minute											
U.S. Billed Minutes	11,513	13,616	15,889	19,325	22,753	24,250	28,515	30,135	33,287	35,988	42,664
Underlying Carrier Revenue per Minute	\$1.00	\$0.91	\$0.89	\$0.74	\$0.67	\$0.59	\$0.51	\$0.47	\$0.33	\$0.26	\$0.20
End-User Revenue per Minute	\$1.00	\$0.92	\$0.90	\$0.76	\$0.69	\$0.61	\$0.53	\$0.49	\$0.34	\$0.28	\$0.21

See notes at the end of the tables.

Table 27
Revenue per Minute Data for Selected Carriers 1/
(Revenues and Minutes in Millions)

U.S. Billed Revenues and Minutes	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Annual Growth Rates 1998 to 2003 7/
AT&T												
U.S. Billed Minutes	7,201	8,040	8,831	9,546	10,331	10,452	10,900	9,787	11,975	12,787	13,681	6.0%
U.S. Billed Revenues	\$7,482	\$7,984	\$8,425	\$8,559	\$8,351	\$7,533	\$6,755	\$5,444	\$5,790	\$5,477	\$4,298	
Revenue per Billed Minute	\$1.04	\$0.99	\$0.95	\$0.90	\$0.81	\$0.72	\$0.62	\$0.56	\$0.48	\$0.43	\$0.31	5.4%
Originating + Terminating Minutes	10,938	11,807	12,778	13,563	14,529	15,113	15,944	14,548	16,200	17,888	19,902	
Retained Revenues 24/	\$4,979	\$5,229	\$5,634	\$5,705	\$5,786	\$5,332	\$4,921	\$4,127	\$4,597	\$4,517	\$3,475	
Retained Revenue per Minute	\$0.46	\$0.44	\$0.44	\$0.42	\$0.40	\$0.35	\$0.31	\$0.28	\$0.28	\$0.25	\$0.17	
MCI, Inc.*												
U.S. Billed Minutes	2,857	3,529	4,486	5,372	5,913	7,195	8,306	12,412	11,455	12,260	13,524	12.9%
U.S. Billed Revenues 21/	\$2,779	\$2,952	\$3,968	\$3,550	\$4,243	\$4,298	\$5,056	\$6,818	\$2,876	\$2,116	\$1,766	
Revenue per Billed Minute	\$0.97	\$0.84	\$0.88	\$0.66	\$0.72	\$0.60	\$0.61	\$0.55	\$0.25	\$0.17	\$0.13	13.1%
Originating + Terminating Minutes	4,175	5,206	6,350	7,496	8,216	10,257	11,396	17,904	17,172	17,647	18,858	
Retained Revenues 24/	\$1,789	\$1,790	\$2,402	\$1,772	\$2,634	\$2,745	\$3,489	\$4,900	\$1,655	\$1,103	\$799	
Retained Revenue per Minute	\$0.43	\$0.34	\$0.38	\$0.24	\$0.32	\$0.27	\$0.31	\$0.27	\$0.10	\$0.06	\$0.04	
Sprint												
U.S. Billed Minutes	1,181	1,490	1,772	2,745	2,794	2,916	3,640	3,945	5,447	4,774	6,459	15.7%
U.S. Billed Revenues	\$1,048	\$1,229	\$1,289	\$1,493	\$1,478	\$1,421	\$1,379	\$1,188	\$1,386	\$1,185	\$1,479	
Revenue per Billed Minute	\$0.89	\$0.82	\$0.73	\$0.54	\$0.53	\$0.49	\$0.38	\$0.30	\$0.25	\$0.25	\$0.23	14.1%
Originating + Terminating Minutes	1,730	2,140	2,480	4,060	4,505	4,795	5,507	5,957	7,977	7,389	9,573	
Retained Revenues 24/	\$706	\$742	\$741	\$672	\$822	\$922	\$825	\$781	\$773	\$500	\$894	
Retained Revenue per Minute	\$0.41	\$0.35	\$0.30	\$0.17	\$0.18	\$0.19	\$0.15	\$0.13	\$0.10	\$0.07	\$0.09	
All Other Carriers												
U.S. Billed Minutes	274	556	800	1,662	3,715	3,687	5,670	3,990	4,410	6,167	9,001	14.7%
U.S. Billed Revenues	\$195	\$265	\$478	\$632	\$1,177	\$994	\$1,337	\$721	\$793	\$668	\$859	
Revenue per Billed Minute	\$0.71	\$0.48	\$0.60	\$0.38	\$0.32	\$0.27	\$0.24	\$0.18	\$0.18	\$0.11	\$0.10	13.9%
Originating + Terminating Minutes	457	847	1,333	2,500	4,673	4,283	6,434	4,615	5,416	6,741	10,005	
Retained Revenues 24/	\$136	\$161	\$166	\$284	\$430	\$383	\$486	\$276	\$413	\$191	\$254	
Retained Revenue per Minute	\$0.30	\$0.19	\$0.12	\$0.11	\$0.09	\$0.09	\$0.08	\$0.06	\$0.08	\$0.03	\$0.03	
Total All Carriers												
U.S. Billed Minutes	11,513	13,615	15,889	19,325	22,753	24,250	28,515	30,135	33,287	35,988	42,664	10.9%
U.S. Billed Revenues	\$11,505	\$12,431	\$14,160	\$14,234	\$15,250	\$14,246	\$14,528	\$14,172	\$10,844	\$9,446	\$8,402	
Revenue per Billed Minute	\$1.00	\$0.91	\$0.89	\$0.74	\$0.67	\$0.59	\$0.51	\$0.47	\$0.33	\$0.26	\$0.20	10.3%
Originating + Terminating Minutes	17,299	20,000	22,939	27,618	31,923	34,448	39,280	43,023	46,765	49,665	58,338	
Retained Revenues 24/	\$7,609	\$7,923	\$8,944	\$8,433	\$9,672	\$9,383	\$9,721	\$10,084	\$7,437	\$6,312	\$5,422	
Retained Revenue per Minute	\$0.44	\$0.40	\$0.39	\$0.31	\$0.30	\$0.27	\$0.25	\$0.23	\$0.16	\$0.13	\$0.09	
												Change in Share 1998 to 2003
Shares of U.S. Billed Minutes												
AT&T	62.5%	59.1%	55.6%	49.4%	45.4%	43.1%	38.2%	32.5%	36.0%	35.5%	32.1%	-11.0%
MCI, Inc.*	24.8%	25.9%	28.2%	27.8%	26.0%	29.7%	29.1%	41.2%	34.4%	34.1%	31.7%	2.0%
Sprint	10.3%	10.9%	11.2%	14.2%	12.3%	12.0%	12.8%	13.1%	16.4%	13.3%	15.1%	3.1%
All Other Carriers	2.4%	4.1%	5.0%	8.6%	16.3%	15.2%	19.9%	13.2%	13.2%	17.1%	21.1%	5.9%
Lower Bound HHI Index 22/ 23/	4,633	4,279	4,011	3,415	2,888	2,883	2,473	2,923	2,746	2,599	2,262	
Upper Bound HHI Index 22/ 23/	4,635	4,284	4,019	3,439	2,977	2,960	2,604	2,981	2,805	2,697	2,411	
Shares of Foreign Billed Minutes												
AT&T	64.6%	59.0%	56.0%	48.4%	45.8%	45.7%	46.8%	36.9%	31.3%	37.3%	39.7%	-6.0%
MCI, Inc.*	22.8%	26.3%	26.4%	25.6%	25.1%	30.0%	28.7%	42.6%	42.4%	39.4%	34.0%	4.0%
Sprint	9.5%	10.2%	10.0%	15.9%	18.7%	18.4%	17.3%	15.6%	18.8%	19.1%	19.9%	1.4%
All Other Carriers	3.1%	4.6%	7.6%	10.1%	10.4%	5.8%	7.1%	4.8%	7.5%	4.2%	6.4%	0.6%

* MCI for years 1993-1997. MCI WorldCom, Inc. for years 1998-2003. In 2004, WorldCom emerged from Chapter 11 bankruptcy as MCI, Inc.

Appendix A: Notes to Tables

Note: Some previously published data have been revised. Detail may not add to totals shown due to rounding. "n.a." signifies data not available. "n.o." signifies service not offered. "*" signifies an amount greater than 0 but less than a half million. "n.m." signifies not meaningful.

- 1) Data for 1990 are reported in the *Statistics of Communications Common Carriers* (SOCC, which is published by the Industry Analysis and Technology Division of the Wireline Competition Bureau) with the following adjustment: telephone traffic for Canada and Mexico have been added. The telephone data for 1990 originated in FCC Form M filings and represent traffic between domestic United States and offshore points. 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 *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) The data for total toll revenues for 1950 through 1980 have been taken from Table 4.3 of the SOCC, and represent message telephone, WATS, subscriber-toll free, private line, and other toll service revenues (accounts 510 through 516) reported in the discontinued annual FCC Form M filings. Starting with 1981, the total toll figures are from the *Trends in Telephone Service* (which is published by the Industry Analysis and Technology Division of the Wireline Competition Bureau), and include toll revenues of all local and interexchange carriers. Note that total toll revenues include revenues from end users as well as revenues from other carriers. Total end-user toll revenues also are taken from *Trends in Telephone Service*.
- 3) International Simple Resale (ISR) traffic differs from facilities-based traffic in that the former is carried over **leased private lines** and the latter is carried over **owned circuits**. Pure resale traffic is handled by reselling the **switched services** of another carrier. 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 *International Telecommunications Data* reports. **ISR/Hubbed** traffic is switched traffic that is routed and settled by the U.S. carrier outside of 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.¹ The Commission allowed carriers to use ISR as a means to route U.S.-outbound and U.S.-inbound traffic between the United States and a number of approved countries. In many cases, U.S. carriers exchanged traffic with a carrier in an approved country and that carrier "hubbed" the call, i.e. terminated the call in or from a third country under a traditional settlement agreement. See 47 C.F.R. §§ 63.17.

- 4) Total international revenues include revenues from filers that requested confidential treatment. These revenues are not included in revenues for individual services. For 2003, eighteen carriers requested confidential treatment for a total of \$560 million of international revenues. **End-user** revenues are estimated as the total revenues for facilities-based and facilities-resale traditional and International Simple Resale (ISR)/Hubbed service plus 10% of pure resale revenues. In Table 30, the amount of end-user revenues attributed to carriers other than the three largest are estimated as half of their total billed revenues. The amounts for the largest carriers are estimated as the balance of total end-user revenues. Private line revenues, which are treated as end-user revenues for estimating total end-user international revenues, contain a small amount of resale revenues.
- 5) Only one facilities-based carrier reported providing international telex and telegraph services in 2003. That carrier, MCI Inc., represented that it billed relatively little revenues for those services and was granted a waiver not to file data.
- 6) See footnote 4 above for information on end-user revenues. Per-minute estimates published herein are different from estimates published in *Trends in Telephone Service* because the latter does not include billed minutes and revenues associated with calls that both originate and terminate at foreign points.
- 7) The annual rates of growth were estimated by fitting a log linear regression to data for the years indicated.
- 8) Country Direct, Country Beyond, and reoriginated traffic were first reported separately in 1995. Amounts shown for prior years are based on staff estimates.
- 9) Many countries charge for service on the basis of metered pulses, rather than by call minutes as is done in the United States. The pulses are converted to minutes to facilitate settlements. U.S. carriers report these amounts as foreign billed minutes.

¹ In the *2004 International Settlements Policy Reform Order*, the Commission eliminated its ISR policy. 19 FCC Rcd 5709. This change was not effective until 2004, however, and does not affect the 2003 data presented in this report.

- 10) 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 to the terminating foreign carrier.
- 11) Estimated minutes of traffic for selected foreign carriers and for the total world were obtained from the TeleGeography research division of PriMetrica, Inc. (www.telegeography.com). Several companies have changed over time due to name changes and mergers. Through 1997, MCI data are shown for MCI WorldCom. Cable & Wireless, prior to 1997, is Mercury, and then C&W Communications until 2000. PCCW Hong Kong Telecom, prior to 1998, was HongKong Telecom, and then C&W Hong Kong until 2000. China Telecom is China MPT prior to 1997. Through 1991, Deutsche Telecom is DBP Telecom. Stentor became part of Bell Canada in 1998. Some previous data have been revised.
- 12) The *TeleGeography* report does not provide estimates for China Telecom and Deutsche Telekom for 2001. The amounts shown are the average of the 2000 and 2002 estimates.
- 13) Source: *2003 Year-End Circuit Status Report*, International Bureau, December 23, 2004. See Table 7 therein for conversion ratios used to calculate the number of 64 kbps circuits for high-speed digital systems. Data include revisions for previous years.
- 14) 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 241,920 circuits to 1,693,440 circuits.
- 15) Data for previous years have been revised to incorporate revisions received from carriers. Latest data are from the International Bureau *2003 Year-End Circuit Status Data Report*. Data reflect 4 khz or 64 kbps equivalent circuits. Data shown in Tables 11 through 13 are for activated circuits and do not include idle circuits. The *Circuit Status* reports contain data for both activated and idle circuits.

- 16) Totals and averages for all countries include traffic billed in off-shore U.S. points. The region totals do not.
- 17) A Fisher ideal price index is a geometric mean of a Laspeyres price index and a Paasche price index for a good or service. A Laspeyres price index is the ratio of the cost of a market basket of goods and services from period 0 at the prices in period 1 to the cost of the identical market basket at the prices in period 0. A Paasche price index is the ratio of the cost of a market basket of goods and services from period 1 at the prices in period 1 to the cost of the identical market basket at the prices in period 0.
- 18) 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. See annual *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.). Once the FCC determines that U.S. carriers can terminate at least 50% of U.S.-billed traffic to a country at least 25% below the benchmark settlement rate for the country, the FCC grants relief from the international settlements policy. This permits each U.S. carrier to negotiate its own settlement rates. These negotiated settlement rates are not public and therefore are not available for publication.
- 19) Where more than one foreign carrier 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.
- 20) Accounting rates do not exist for service between Mexico and the United States. Instead, settlements are based on the distance between the border and the destination point in Mexico. The table shows an average settlement rate per minute, which is calculated as an average of all the per minute settlement rates for service between the United States and Mexico. The settlement rate varies by service classification and the originating or terminating locations.
- 21) MCI, Inc. facilities-based telephone service revenues for 2000 appear to be seriously overstated. The company has not been able to file corrected data.
- 22) The Herschfeld-Herfendahl Index (HHI) value for the market is based on the market shares for each entrant.
- 23) A lower bound HHI estimate is calculated using the share for the largest entrants only. An upper bound HHI estimate is calculated by imputing the shares of all other carriers to three equal-sized firms.

- 24) Retained revenues are 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.
- 25) For many countries, significantly higher rates apply to calls that terminate with a mobile phone. Some prepaid cards offer lower rates to specific cities. All cards add a surcharge for calls placed from a payphone. Some cards also may deduct card value for taxes. Some cards expire after a period of time, typically a few months after first use.
- 26) Americatel rates are from http://www.americatel.com/sp/section.php?id_section=6908. Rates are for a \$20 card. Rates assume that the card will be held for 4 weeks – incurring two \$2.00 maintenance fees.
- 27) AT&T cards contain a fixed number of minutes. International rates are based on the number of minutes of the call times a multiple which varies by country. The multiples are from <http://www.consumer.att.com/prepaidcard/fy/pr.html>. The USPS price is based on the current price at the post office. The Sam's Club price is based on the recharge rate for 1000 minutes, including surcharges.
- 28) IDT prepaid card rates taken from <http://www.uniontelecard.com/>.
- 29) Rates for \$20 card. Rates include a 30% surcharge, reflect 3 minute rounding, and assume that the card will be held for 4 weeks – incurring two 69 cent maintenance fees.
- 30) MCI Minute Pass rates are from <http://www.minutepass.com/>. MCI Costco card rates were obtained from the toll free number on the back of a card.
- 31) Radiant prepaid cards rates taken from <http://www.prepaidtelecomhq.com/>, which is a vendor that carries Radiant cards. Radiant also shows rates on its own site at http://www.radianttelecom.com/prepaid_cards.asp. These rates are slightly higher, on average, for the Clear Connect card and more than 40% lower, on average, for the World4Less card. Radiant does not distribute cards through its own website.
- 32) Sprint rates are from http://www.sprint.com/ratesandconditions/residential/offered_prepaidcard.html international rate table number 8.

- 33) Rates do not reflect universal service pass-through surcharges or taxes.
- 34) Common carriers report the actual number of private line circuits that they provided to customers at year end and the same circuits expressed as 64 Kbps (voice) equivalent circuits. The table shows an average revenue per circuit, which is calculated as the total billed revenue for the year, divided by the average number of circuits for the year [(Year end + prior year end) / 2]. Data taken from Table B1 of annual *International Telecommunications Data* reports.

Appendix B: Sources of International Traffic Data

Most of the data presented herein came from carrier rate information, 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 annual *Section 43.61 International Telecommunications Data* reports and *Section 43.82 Circuit Status Data* reports released by the International Bureau and *Statistics of Communications Common Carriers (SOCC)* released by the Wireline Competition Bureau. Recent editions of the traffic data and circuit status reports and annual volumes of the *SOCC* 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 at www.fcc.gov/ib or <http://www.fcc.gov/wcb/iatd/intl.html>. Copies may also be obtained from the Commission's duplicating contractor, Best Copy and Printing, Inc. (BCPI). Customers may contact BCPI through its web site: WWW.BCPIWEB.COM, by e-mail at FCC@BCPIWEB.COM, by phone at 202-488-5300 or by fax at 202-488-5563.

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 www.fcc.gov/ib.

Previous editions of *International Trends* can be downloaded from www.fcc.gov/ib and the **FCC-State Link** Internet site at <http://www.fcc.gov/wcb/iatd/intl.html>. The **FCC-State Link** also contains information on the domestic telecommunications industry

Information from the Bureau of Economic Analysis, (202) 606-9900, can be found on the Internet at www.bea.doc.gov.

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

Information from the United States International Trade Commission, (202) 205-2000, can be found on the Internet at www.usitc.gov.

Additional information on consumer price indexes can be obtained from the U.S. Department of Labor, Bureau of Labor Statistics, (202) 691-5200, and at <http://stats.bls.gov>.

Some information on telecommunications in foreign countries is available from the International Telecommunications Union, 41-22-730-5111 or at www.itu.int/, and also from the Organization for Economic Co-operation and Development, 33-145-24-8200 or at www.oecd.org. Additional information on international telephone traffic originating in foreign countries can be obtained from TeleGeography, (202) 741-0020, and at www.telegeography.com.

Appendix C: Data Collection Definitions and History

The *Manual for Filing Section 43.61 Data in accordance with the FCC's Rules and Regulations*, June 1995, and four Public Notices¹ provide directions for filing international traffic data.² 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, the Commission required carriers to report all traffic for offshore U.S. points, such as Guam and Midway, and carriers 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

¹ DA 00-1526, Annual Section 43.61(a) International Telecommunications Traffic Reports Due by July 31, 2000 (rel. July 7, 2000), DA 99-1332, Further Clarification of Section 43.61 International Traffic Data Reporting Requirements (rel. July 7, 1999), DA 98-1369, Clarification of Section 43.61 International Traffic Data Reporting Requirements (rel. July 9, 1998), and Clarification of Section 43.61 International Traffic Data Reporting Requirements (rel. July 15, 1997), may be obtained at the following FCC web sites: <http://www.fcc.gov/ib> (click on "Industry Information" and then on "Section 43.61 International Traffic Data Report"); or <http://www.fcc.gov/wcb/iatd/stats.html> (click on "Section 43.61 International Traffic Data Report").

² 47 C.F.R. § 43.61. The Commission, in April 2004, proposed modifications to the Sections 43.61 and 43.82 international data collection rules. See *Reporting Requirements for U.S. Providers of International Telecommunications Services; Amendment of Part 43 of the Commission's Rules*, IB Docket 04-112, Notice of Proposed Rulemaking, 19 FCC Rcd 6460 (2004).

trend was used to estimate Canada and Mexico 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. The number of minutes used for settlement purposes is generally based on the number of conversation minutes. In many cases, accumulated seconds are used to determine the minutes used in settlements. In the case of Mexico, billed minutes are used to determine settlements. 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 United States, 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 an 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 § 43.61 international traffic data reporting manual. Beginning with the 1995 data filings, the Commission required carriers 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. carrier 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, the Commission required carriers 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, and international simple resale including traffic hubbed through an intermediate foreign country. 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).³ The settlement is based on the accounting rate, which is part of a compensation agreement negotiated between an 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. carrier and its foreign correspondent share the accounting rate on a 50/50 basis. The ISP also requires that the U.S. carrier agree to accept

³ See 47 C.F.R. §§ 43.51(c), 64.1001 (2003). In the *2004 International Settlements Policy Reform Order*, the Commission removed the ISP from all routes on which carriers have negotiated benchmark-compliant rates. *International Settlements Policy Reform, International Settlement Rates*, IB Docket No. 02-234, First Report and Order, 19 FCC Rcd 5709 (2004). These changes were not effective until 2004, however, and do not affect the 2003 data presented in this report.

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.⁴ The Commission allowed carriers to use ISR as a means to route U.S.-outbound and U.S.-inbound traffic between the United States and a 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. § 63.17.

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 § 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 § 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.

Complete technical information on current reporting requirements are contained in the *Manual for Filing Section 43.61 Data*, June 1995. Additional information on year 2003 data is contained in the *2003 International Telecommunications Data* report available from the FCC's Internet sites at www.fcc.gov/ib.

Figure A-1

Reporting and Definition Changes Affecting <i>SOCC</i> 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 <i>SOCC</i> 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.

⁴ In the *2004 International Settlements Policy Reform Order*, the Commission eliminated its ISR policy. 19 FCC Rcd 5709. This change was not effective until 2004, however, and does not affect the 2003 data presented in this report.

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>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 <i>SOCC</i> 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 <i>SOCC</i> 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, were 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, the Commission required carriers to separate international facilities-based traffic from international pure resale traffic. Starting in 1995, the Commission required carriers to 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, the Commission required carriers 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, the Commission required facilities-based carriers to 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, the Commission also required carriers 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 (see Footnotes 2 and 4 above, and Point 17 below).
14.	Starting with 1995 filings, the Commission required carriers to separate Country Direct, Country Beyond, hubbing and reorigination traffic from other types of traffic in non-public filings.
15.	The Commission started granting waivers for 1998 traffic filings allowing carriers to report switched international telex and telegraph services as miscellaneous or other international switched services, and to use two private line service categories instead of the six private line service categories described in the <i>Manual for Filing Section 43.61 Data</i> , June 1995. See Public Notice DA 99-1332, June 7, 1999, available from www.fcc.gov/ib and http://www.fcc.gov/wcb/iatd/intl.html .
16.	Starting with 1998 filings, carriers that are granted waivers to report reoriginated traffic using billing codes other than 3 (traditional transiting), are required to separately identify traffic terminated via pure resale of another carrier's switched service. Carriers need file this breakout only in non-public filings.
17.	The Commission eliminated alternative settlement arrangements in the 1998 Biennial Regulatory Review Report and Order, adopted in 1999 (11 FCC Rcd 7963, see paragraphs 75-81).
18.	For 2003 traffic filings, the Commission waived the requirement that MCI file telex and telegraph data. No other carriers reported telex or telegraph data for that year.