





The 91st Annual Meeting of Share Owners will be held at 2 p.m. on Wednesday, April 21, 1976, in the Civic Center—Convention Hall, Philadelphia, Pa.

The financial results reported herein are for American Telephone and Telegraph Company and its principal telephone subsidiaries, consolidated.

*If you need further information:*

*—An Annual Statistical Report, with additional data on our operations, is available on request.*

*—AT&T's annual report to the Securities and Exchange Commission, Form 10-K, is available on request.*

*—Annual reports of the Bell Telephone operating companies and of the Western Electric Company, manufacturing and supply unit of the Bell System, are also available.*

*—This report is available in braille and on talking records.*

Address requests to the Secretary, American Telephone and Telegraph Company, 195 Broadway, New York, New York 10007. The telephone number of the company is (212) 393-9800.

The company maintains stock transfer offices at 180 Fulton St., New York, N.Y. 10007 and also at: 185 Franklin St., Boston, Mass. 02107; 225 West Randolph St., Chicago, Ill. 60606; and 140 New Montgomery St., San Francisco, Calif. 94105.

Inquiries on securities, dividends or interest payments should be addressed to AT&T Co., P.O. Box 2018, New Brunswick, New Jersey 08903.






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## A RECORD OF THE YEAR

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**About the cover:** One hundred years of telephone history are celebrated in photographs and illustrations. On the cover flap, a year-by-year record of progress—from Alexander Graham Bell's invention to the development of today's nationwide telecommunications system—is recorded.



## Report of the Chairman of the Board

"I believe, in the future, wires will unite the head offices of the Telephone Company in different cities, and a man in one part of the Country may communicate by word of mouth with another in a distant place....I would impress upon you all the advisability of keeping this end in view, that all present arrangements of the Telephone may eventually be realized in this grand system."

Alexander Graham Bell (1878)



AT&T Chairman John D. deButts

Dear Share Owner:

As you read this, the telephone industry is observing its one hundredth birthday. This annual report celebrates that occasion only incidentally. It is the record of a year, not a century.

Centennials come only once, however, and it may not be amiss, therefore—before addressing the particulars of the year—to acknowledge, if only briefly, our debt to history. Particularly does it seem appropriate here to recognize our obligation to the generations of telephone people who built this business and left us not only the heritage of their skills but their spirit, too.

What the Bell System has accomplished thus far, including what it accomplished in the year just past, it owes principally to three basic principles that with a rare consistency have governed the development of the telephone industry down through the years. They are:

- the principle of enterprise
- the principle of accountability
- and the principle of universality.

The United States is almost unique in the world in having entrusted the development and operation of its communications services to private industry. Thus profit is no less a spur to our performance than it is in any other business. Indeed, it is largely to the basic compulsion to improve profitability—through productivity improvements, technological advances and aggressive marketing of its services—that the industry owes the efficiency of its operations and its innovative drive.

Endowed with unique responsibilities,

our business is at the same time held uniquely accountable for meeting them. Long ago our business accepted—indeed it endorsed—the principle of public regulation of so vital a service as that we provide. That the United States today enjoys the most highly developed communications service in the world is attributable to the incentives that derive from the now-proven concept of private enterprise operating under public surveillance, of undivided responsibility for service combined with strict accountability for its performance.

But more than to any other single factor, the United States owes the growth and development of its communications services to a concept that from its beginning our industry—and for the most part its regulators—have taken as its basic purpose.

Alexander Graham Bell established that purpose and—in his “grand system”—envisioned the means of accomplishing it.

Later we came to call that purpose “universal service.” Toward that end, generations of telephone people have addressed themselves continuously not only to the advancement of communications technology—the means by which one man may reach another in a distant place—but to the development of the operating standards and the shaping of organizational resources that would make that faculty available to as many people as possible at as low a cost as possible.

Now, at the end of a hundred years, universal service—at least as our forerunners in the business conceived it—has to all intents and purposes been achieved. Nearly every American household, nearly every



American business is served by telephone. The aims of the industry's founders, it might be assumed, have been accomplished.

Or have they?

Looking ahead, I am convinced that we are a long way from achieving the universality of communications in our society that our technology can accomplish. Indeed, I believe what I hope these pages will evidence—that technology now being readied will bring in an era of evermore abundant communications and thereby vastly extend man's reach, expand his ability to manage complex undertakings and—not least of all—enlarge his freedoms.

In short, I see this centennial not as an end but a beginning, the beginning of an era of communications progress matching any we have experienced before.

### **Some questions of policy**

But whether that promise will in fact be fulfilled depends—more than it does on technology—on policy. And today—to put the matter bluntly—national policy with respect to telecommunications is in a state of contention and uncertainty.

Thus, we are confronted with a very real question as to whether in its second century our business can realistically look for guidance to the same principles that governed its first.

Enterprise, surely. For since World War I, when the Bell System was briefly nationalized—an experience that provided no basis for urging its repetition—the notion that the telecommunications industry might be administered by any but private hands has not been seriously contemplated. And, if our own performance is the test, it never will be.

Accountability? There is no current prospect that our business will be any less rigorously regulated than it has been up till now. At the heart of the principle of accountability, however, is the concept of undivided responsibility for service. Over recent years, this concept has been

breached by a series of regulatory decisions that have opened more and more of the field of telecommunications to entry by “competitors” who are free to serve selected segments of the market but who do not at the same time share the regulated common carriers’ obligation to serve the entire public. To this competition we are altogether ready, willing and able to respond, although in a number of instances our ability to do so has been impeded by protracted regulatory proceedings or decisions that deny our customers the economy our technology affords.

We have opposed this trend toward market allocation in the guise of competition—and continue to oppose it—for one reason only: it will hurt the public. The experience of telecommunications authorities around the world confirms that fragmenting service responsibility impairs service quality. This, we believe, will be the consequence, for example, of the Federal Communications Commission’s proposal that telephone companies be required to permit direct connection to their lines of terminal equipment over which they have no control.

This same trend compromises—indeed it contradicts—the principle of universality. To compensate for the loss to competitors of revenues that help to pay the common costs of all their services, telephone companies will have no alternative except to raise their rates for basic exchange service, thereby reversing their historic aim of bringing telephone service within the economic reach of more and more people.

These and like issues are at stake in a score or more regulatory proceedings at the federal level and in the states. They are at stake in the Justice Department’s antitrust suit against AT&T. Broadly characterized, those issues turn on the degree to which competitive standards should supplant the public interest standards that have been the test of the industry’s performance throughout most of its history.

We believe that neither the public interest nor our own is served by a continuation of current uncertainties. It is for this reason that we have undertaken to call the public’s attention to its stake in the matter—the quality of its service and the price it pays for it. And it is for this reason that the telephone industry has undertaken to alert the public’s elected representatives that they have a decision to make. A great industry awaits a determination as to what is expected of it.

But if national telecommunications policy remains uncertain, our own does not. We see our basic aim as assuring the widest availability of high quality communications service at the lowest cost to the entire public. Unless instructed otherwise, we shall address our efforts to no lesser standard.

Now, 1975.

### **A year of continued growth**

In what clearly were the most difficult economic circumstances since the 1930s, the Bell System continued to grow. We grew, however, at a rate little more than half that we experienced as recently as two years ago.

Combined with still rising costs, this slackened growth interrupted the earnings improvement trend we had maintained over the three prior years. While revenues increased 10.6 per cent, net income applicable to AT&T common shares declined by one per cent. Earnings per share—on approximately 10 million more shares—were \$5.13 compared to \$5.28 in 1974.

At year’s end, however, all signs pointed toward a resumption of earnings growth. At this writing, they still do. We are gaining new telephones at a rate approximately twice that of a year ago and we are handling 6.8 per cent more long distance messages.

But it is principally on the basis of what the Bell companies accomplished in 1975 that I feel confident in telling share owners that not in a long time has our busi-



# RESULTS IN BRIEF

## Earnings per Common Share

	1975	1974#	1973#	1972	1971#
Before extraordinary item . . . . .	\$ 5.13	\$ 5.28	\$ 4.99	\$ 4.34	\$ 3.92
Extraordinary item* . . . . .	—	—	.08	—	—
Total . . . . .	<u>\$ 5.13</u>	<u>\$ 5.28</u>	<u>\$ 5.07</u>	<u>\$ 4.34</u>	<u>\$ 3.92</u>
Based on average shares outstanding (000) . .	567,915	557,815	554,258	549,501	549,304
Dividends declared per share . . . . .	\$ 3.40	\$ 3.24	\$ 2.87	\$ 2.70	\$ 2.60

## Revenues

	Millions	Millions	Millions	Millions	Millions
Local service . . . . .	\$14,028	\$12,813	\$11,419	\$10,363	\$ 9,135
Toll service . . . . .	13,925	12,461	11,278	9,771	8,633
Other (including other income) . . . . .	<u>1,319</u>	<u>1,439</u>	<u>1,339</u>	<u>1,218</u>	<u>1,110</u>
	<u>29,272</u>	<u>26,713</u>	<u>24,036</u>	<u>21,352</u>	<u>18,878</u>

## Expenses

Operating . . . . .	18,757	16,716	15,000	13,518	12,075
Income taxes . . . . .	2,390	2,313	2,138	1,824	1,562
Other taxes . . . . .	2,681	2,454	2,212	1,983	1,752
Interest . . . . .	<u>2,296</u>	<u>2,056</u>	<u>1,734</u>	<u>1,495</u>	<u>1,288</u>
	<u>26,124</u>	<u>23,539</u>	<u>21,084</u>	<u>18,820</u>	<u>16,677</u>
Income before extraordinary item . . . . .	3,148	3,174	2,952	2,532	2,201
Extraordinary item* . . . . .	—	—	46	—	—
Net income . . . . .	3,148	3,174	2,998	2,532	2,201
Preferred dividend requirements . . . . .	<u>232</u>	<u>232</u>	<u>186</u>	<u>146</u>	<u>49</u>
Income applicable to common shares . . . . .	<u>\$ 2,916</u>	<u>\$ 2,942</u>	<u>\$ 2,812</u>	<u>\$ 2,386</u>	<u>\$ 2,152</u>

#Restated — see note (C) to Financial Statements.

\*Net gain on sale of Communications Satellite Corporation common stock.



## MANAGEMENT ANALYSIS OF RESULTS IN BRIEF

**Earnings per share** for 1975 decreased 15 cents from 1974 and net income decreased \$26 million. These decreases were principally the result of a \$208 million reduction in Western Electric's net income. Additionally, average common shares outstanding rose by 10 million. Total revenues (including other income) were up 9.6% while total expenses (including taxes and interest) rose 11%. Earnings per share from operations for 1974 increased 29 cents over 1973 as income (before extraordinary item) rose 7.5%, principally because the growth in revenues was greater than the growth in expenses.

**Revenues from local and toll services and other income** increased \$2.6 billion in 1975 and \$2.7 billion in 1974 for several reasons: more telephones in service, growth in local and long distance calling volumes, higher rates authorized by regulatory commissions and increased sales of telephone directory advertising. Western Electric income in 1975 declined by \$208 million, largely because of reductions in the telephone companies' construction programs and a drop in military sales to the federal government; it had declined slightly in 1974, mainly due to a four-week work stoppage.

**Operating expenses** over the 1973-75 period rose by \$3.8 billion, principally because of wage increases (including cost-of-living allowances and pension and benefit improvements), increased costs of materials, supplies and services, and increased depreciation rates authorized by the FCC as applicable to a larger plant investment.

**Income taxes** relating to telephone operations rose \$77 million in 1975 and \$175 million in 1974, reflecting greater taxable income. The rise slackened in 1975, mainly as a result of a larger increase in expenses.

**Other taxes** increased \$227 million in 1975 and \$242 million in 1974, largely as a result of higher state and local property taxes on an expanding base of taxable plant. Gross receipts taxes also rose as our taxable revenues grew, and Social Security taxes have gone up because of statutory increases in the taxable wage base.

**Interest expense** increased \$240 million in 1975 and \$322 million in 1974, primarily because of additional long and intermediate-term debt capital obtained by the Bell companies to help finance their construction programs. The average cost of debt issued in 1975 was 8.88% compared to 9.15% in 1974.

ness been more effectively positioned than it is now to take advantage of the opportunities immediately ahead.

In 1975, we spent \$9.3 billion for construction, most of it to increase the capacity and enhance the capabilities of Bell System plant. As a consequence of these expenditures and those of prior years, we can say with assurance that Bell System service was never better than it is today.

In 1975, we brought new technology to the threshold of introduction that, beginning in 1976, will not only increase the versatility of the nationwide switched network but improve the efficiency of its operations as well.

In 1975, we strengthened our marketing capabilities—by further professionalizing our sales organization, by sharpening our own perceptions of the revenue opportunities our technology affords and by continuing to augment a growing line of new products and services matched to the more and more diversified communications needs of American business.

In 1975, too, we stepped up to the never pleasant but altogether necessary task of repricing our services in light of today's economic realities, the higher costs we confront and the higher earnings levels that are necessary to assure our continued access to new capital on sound terms. Rate increases approved by regulatory authorities in 1975 will add \$1.8 billion to annual Bell System revenues.

But what augurs best for 1976 is the firm control of their operations that the managements of the Bell companies demonstrated in adjusting to the difficult economic circumstances of 1975. Despite recession conditions extending through much of the year, the Bell System's operating units achieved a rate of return on their invested capital very nearly matching the 8.3 percent they achieved in 1974. Unrelenting application of the disciplined management so largely responsible for this accomplishment should stand us in good stead in 1976's improving economic climate.

Of all the units of the Bell System, the most severely affected by the recession was the Western Electric Company. As the telephone companies reduced their requirements to match the slower growth rates they were experiencing, Western Electric sales dropped sharply. Consequently the company, which contributed 56 cents a share to AT&T earnings in 1974, in 1975 was able to contribute but 19 cents. The company has, however, effectively trimmed its work force and facilities to match a lower level of demand and should as a consequence move toward more normal levels of profitability as 1976 unfolds.

### Building for the future

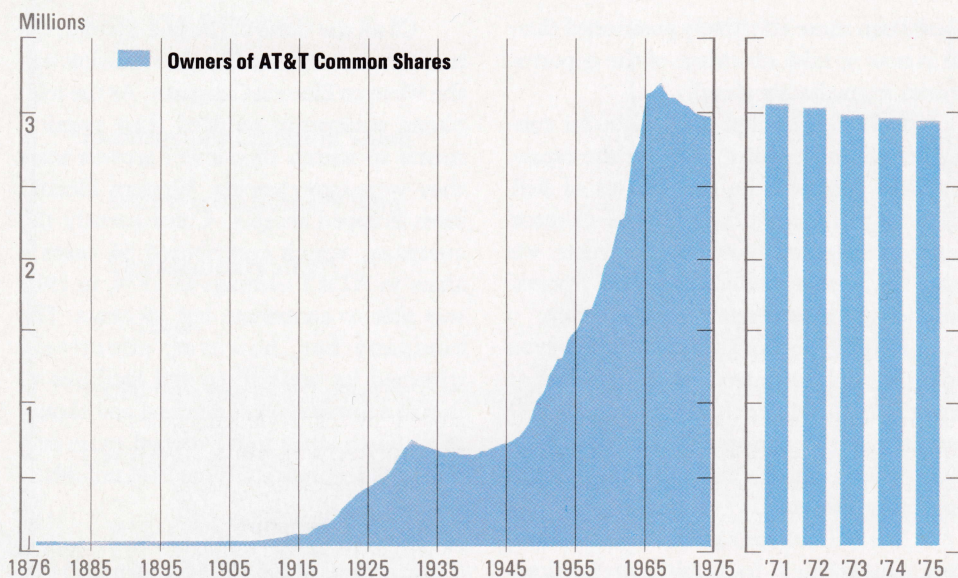
Three aspects of the Bell System's 1975 performance reflect long-term trends that confirm the intrinsic strength of our business and provide a firm basis for confidence in its future. They are:

- the stability of our construction outlays
- the increasing significance of internally generated funds to the fulfillment of our capital requirements
- and the steadily improving productivity of Bell System people and plant.

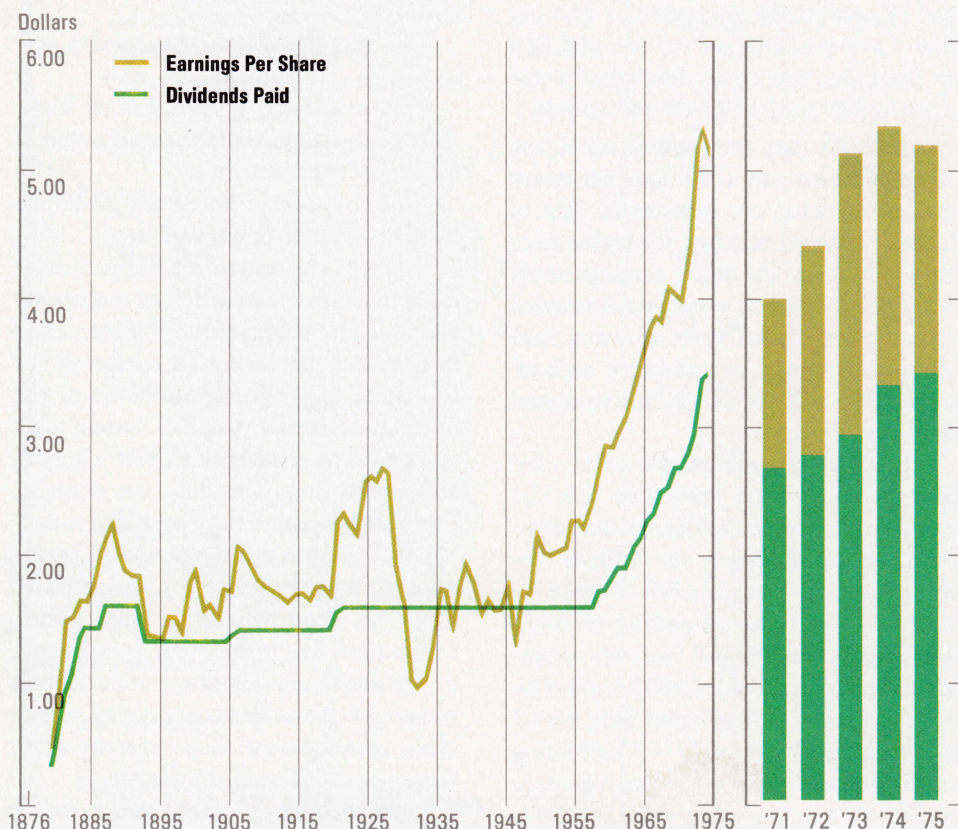
In 1975, our construction expenditures came to less in constant dollars than in any year since 1969. This reduced construction level reflects rigorous management of our capital budgets. But it also reflects the uncommon creativity of Bell System technology and its contribution to our ability to accomplish more with less. For example, over recent years we have been able to double and double again the call-carrying capacity of our existing long-haul intercity routes by improvements in transmission techniques that reduce the incremental cost of adding new circuits to but a fraction of the cost of circuits in the original coaxial cable or microwave radio system when they were initially placed in service.

But technology's contribution to the stability of our construction program is not limited to the development of new and





AT&T has attracted more investors over the years than any other corporate enterprise in the world—with 2,923,000 common share owner accounts and over 582 million shares outstanding at the end of 1975.



AT&T has paid dividends continuously for 96 years. Over the past two decades, as reinvested earnings have added to the book value of share owners' equity, the dividend has been increased nine times as earnings permitted.

improved communications facilities. Perhaps equally important is technology's contribution to the efficiency with which we employ those facilities. Rapidly coming on line today are a variety of new computerized systems that—by providing us more effective control of equipment inventories, by optimizing the utilization of existing plant and by improving maintenance procedures—will over the years ahead enable us to achieve a new level of effectiveness in the conservation of the capital invested in this business.

Nonetheless, the Bell System's annual capital requirements remain considerable—in 1975, \$9.4 billion. All but \$2.8 billion of this amount we are able to meet from internal sources. This is a welcome change from our experience of but a half-dozen years ago when we were required to go to the money markets for well over 50 per cent of our capital needs.

This change is a welcome one on two counts. It eases pressure on the money markets in a period of considerable anxiety over the prospect that a shortage of capital may stifle economic growth. And it reduces our own reliance on debt financing in a period of continuing high interest rates.

As it was, the average cost of the \$2.5 billion in long and intermediate-term debt issued by AT&T and its subsidiaries in 1975 was 8.88 per cent, bringing the embedded cost of Bell System debt to 6.82 per cent.

#### A stronger financial structure

What made our 1975 financing program notable, however, was that for the first time in 11 years we accomplished a turnaround in the ratio of debt to equity in our capital structure. This turnaround was accomplished by the sale in October of 12 million shares of new common equity at \$46 a share, the proceeds of which were \$552 million. Our debt ratio before the sale stood at 50.4 per cent. At year's end it was 49.6 per cent. Our target is 45 per cent.

Opening the way for this sale—the first



public offering of common equity in AT&T history—was endorsement by our share owners at the company's annual meeting in April of 1975 of an amendment to the company's charter terminating their mandatory preemptive rights. Without this endorsement, it would not have been practical to issue common equity in 1975. To do so would have called for a much larger issue and it would have required that the stock be issued at a considerable discount.

As it was, market conditions required that the new shares be sold below the book value of the then outstanding shares, thereby reducing their value by approximately 3/10s of 1 per cent. For the year as a

#### MARKET AND DIVIDEND INFORMATION

The principal market for trading in AT&T common stock is the New York Stock Exchange. Market and dividend data for the last two fiscal years are listed below.

Calendar Quarter	High	Low	Dividend Paid
<b>1974</b>			
1st	53	49¼	\$ .77
2nd	49⅞	45¾	.77
3rd	46¾	39¾	.77
4th	48	40	.85
<b>1975</b>			
1st	51¾	44¾	\$ .85
2nd	52	47½	.85
3rd	51¾	44¾	.85
4th	51½	45	.85

#### QUARTERLY FINANCIAL RESULTS

In millions of dollars:

Calendar Quarter	Operating Revenues	Operating Income	Net Income	Earnings per Common Share*
<b>1974</b>				
1st	\$ 6,309	\$1,135	\$ 798	\$1.33
2nd	6,537	1,204	841	1.41
3rd	6,625	1,193	772	1.28
4th	6,703	1,160	763	1.26
	<u>\$26,174</u>	<u>\$4,692</u>	<u>\$3,174</u>	<u>\$5.28</u>
<b>1975</b>				
1st	\$ 6,795	\$1,148	\$ 716	\$1.17
2nd	7,201	1,290	816	1.34
3rd	7,368	1,306	795	1.30
4th	7,593	1,385	821	1.31
	<u>\$28,957</u>	<u>\$5,129</u>	<u>\$3,148</u>	<u>\$5.13</u>

\*Because of increasing numbers of common shares outstanding each quarter, the sum of quarterly earnings per share may not equal earnings per share for the year. Data reflect retroactive depreciation repurchases approved by the FCC.

whole, however, book value rose from \$51.40 to \$52.86. Not the least of our incentives to improve earnings is the hope that they might produce a market price for our shares sufficient to permit further equity issues—and further reductions in our debt ratio—without even so minimal a reduction of our share owners' investment.

Earlier in the year, exercise of a portion—about 10 per cent—of the warrants we issued with debentures in 1970 produced approximately \$165 million in new equity. Our hopes had been higher but under 1975's depressed market conditions even so modest an infusion of new equity was a welcome one.

A more significant source of new equity capital—more significant because it is a continuing one—was our Dividend Reinvestment and Stock Purchase Plan. In 1975 we derived \$327 million in equity from the Plan, compared to \$185 million in 1974. The number of share owners participating in the Plan rose from 455,362 in January to 601,086 at year's end.

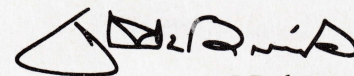
So far as 1976 is concerned, while we are mounting a somewhat larger construction program this year than we did in 1975, we expect that the trend of recent years will continue and that we will be able to meet a still larger percentage of our capital requirements from internally generated funds. Consequently we are less dependent on the debt market than we have been in recent years. At the same time, we look to our Dividend Reinvestment and Stock Purchase Plan to provide us a growing share of the new common equity that further reduction of the company's debt ratio will require.

#### Our obligation to investors

That anticipation—and the hope that market conditions will encourage further issues of new common equity as the need arises—depends on the prospect of a resumption of significant year-to-year earnings improvements. The resumption of economic growth supports that prospect.

But, as I have observed in prior reports, we do not wait upon the economy to produce our earnings for us. Mainly we look to our own efforts to improve productivity through creative management of our operations and the continuous introduction of cost-saving technology.

As appropriate as it appeared in this centennial year to acknowledge at the outset of this letter our business' debt to the generations of telephone people who built it, it appears equally appropriate to conclude it by acknowledging an equal obligation to its proprietors—the millions of people who, in good times and bad, by entrusting their savings to our care, provided us the means to grow. In return we pledge to do our best to merit the continued confidence of all who invest in this enterprise.



J. D. deButts

February 10, 1976







# The Network

"...the lines of this association...will connect one or more points in each and every city, town or place in the State of New York with one or more points in each and every other city, town or place in said State, and in each and every other of the United States, and in Canada and Mexico....and also by cable and other appropriate means with the rest of the known world..."

Charter, AT&T Company (1885)



*From a patchwork of overhead lines strung pole to pole and town to town, a telephone system uniting the entire country by wire was built. Today's telecommunications network—composed of billions of parts and engineered as a unified system—carries telephone calls, data messages, television and virtually all other forms of information from any one part of the nation to any other and to nearly all parts of the world. About 60 per cent of the long distance communications traffic transmitted over the network travels by microwave radio, beamed between horn antennas such as those in the foreground at left.*

The culmination of what was set afoot a hundred years ago—the “grand system” conceived by Alexander Graham Bell and the pioneers of the telephone industry—is the nationwide telecommunications network: more than 700 million carrier circuit miles of microwave radio, cable and wire serving 148 million telephones through 19,000 local switching offices.

Implicit in their century-old vision was the development of a service that would be available to all in all parts of the country. Today, with telephones in some 95 per cent of the households and just about every business in the United States, that vision has proven to be prophetic.

Yet the telecommunications network, in response to the public's increasing use of telephone and other communications services, continues to grow ever more useful, more advanced in its technology and more adaptable to new applications.

## Telephones and calling increased

At the end of 1975, there were 118.5 million Bell System telephones in service, 4.1 million of them added during the year. The rest of the nation's phones—about 20 per cent of the total—are served by Independent telephone companies. All are linked together in a nationwide system managed by AT&T's Long Lines Department.

As the number of customers served by the network increased in 1975, so too did the communications traffic it carried.

The volume of long distance messages rose 5.2 per cent, while overseas calls were up 19 per cent. Overall, the Bell telephone companies handled about 470 million mes-

sages on an average business day, 13 million more than the year before.

The slower *rate* of growth in demand for service experienced by the operating telephone companies was reflected in an 11 per cent decline in sales by the Western Electric Company. Western Electric's earnings, on sales of \$6.6 billion, amounted to \$107 million, 66 per cent below 1974.

## Building an electronic network

With 839 electronic switching systems serving 15 per cent of our telephones at the end of 1975, an electronic telecommunications network is steadily taking form. Aside from its efficiencies and economies, this improved telecommunications network will provide customers with novel communications services—some already available—not economically possible with electromechanical equipment.

The biggest and most advanced electronic switching system ever built, called the No. 4 ESS, went into service in Chicago in January, 1976. Developed primarily for long distance service, it can switch over four times as many calls and yet costs only a third as much to maintain as the most advanced electromechanical toll switching machine.

In the coming months of 1976, three more of these systems will be put into operation in other parts of the country, and 20 or more will be installed and working by the end of 1978.

Using the new stored program control processor, or “brain,” of the No. 4 ESS, we anticipate doubling the capacity of our No. 1 ESS, which is widely used in local central



offices in metropolitan areas. At the same time, new electronic systems have been developed for suburban and rural use.

Electronic technology is not being applied to switching systems alone. It also is being used by telephone operators to process customer-dialed toll calls that require operator assistance. Our one hundredth Traffic Service Position System—a grouping of modern keyboard consoles—was installed in 1975 in Northbrook, Ill., and about 58 per cent of our customers are now served by these systems.

Another advance in "traffic" operations in 1975 was the development of an expanded intercept system for automatically responding to calls placed to telephone numbers no longer in service. This system automatically selects prerecorded words to announce to a caller the number reached, the reason it is out of service and, if appropriate, the new number.

A new signaling technique, by which calls are set up on data links separate from the talking paths, will allow us—and our customers—to get maximum use of an electronic network. We began applying this concept, known as Common Channel Interoffice Signaling, at the start of 1976. Planned for implementation over the next decade or more, it will significantly increase the flexibility of the switched network to provide new customer services.

#### **Transmission: new systems coming**

Our domestic satellite system was nearly ready at year's end, with construction of four AT&T ground stations completed and the first of three Comstar I satellites prepared for launching. Satellites, along with undersea cables, have been used to provide overseas telephone service for the last 11 years, but this will be our first use of satellite channels for domestic telephone calls. We will operate the system jointly with the GTE Satellite Corp.

Three major terrestrial transmission systems—millimeter waveguide and a newly-designed single-sideband radio sys-

tem for long distance service, and a system for metropolitan areas that would transmit messages on lightwaves—currently are in various stages of testing. Each has the capability of vastly increasing the capacity of the nationwide network. They will be introduced, as needed, in the years ahead.

For more than a decade, a growing proportion of the calls and data transmitted in big cities has been carried on digital facilities, which convey messages in the form of encoded pulses. Since the introduction of Dataphone® Digital Service in late 1974, an increasing share of intercity private line traffic also is being handled over digital facilities. Two new short haul digital systems were placed in service in 1975, one (TIC) that doubles the volume of calls that can be sent between central offices and another (T4M) that can transmit 274 million "bits" of information per second over a single coaxial tube.

A sixth transatlantic undersea cable, constructed in 1975 and early this year for service this summer, will carry 4,000 calls simultaneously. It has four times the capacity of the fifth transatlantic cable, laid in 1970, and was built at an investment cost per circuit mile of only one-third as much. Like other Bell System undersea cable systems, it is designed to operate trouble-free for at least 25 years.

What accounts for the steady flow of new, innovative systems that make the Bell System network the most versatile and efficient in the world? In the main, two factors explain it.

One is the extensive planning and coordination that our integrated structure fosters. New systems and equipment are planned years in advance of their introduction, with the interacting units of the Bell System—AT&T, Bell Laboratories, Western Electric and the operating telephone companies—working closely together on each project to ensure coordination through the many phases of design, production and operation.

Each addition to the network must be

technically compatible with the billions of other components already in service. No less critical is the necessity that terminal equipment connected to the network be designed and maintained in such a way as to cause no damage to the efficiency, accuracy and safety of the network's operation.

So precise is the network's composition that its standard for synchronization is an electronic signal—derived from cesium atomic clocks—that beats exactly 2,048,000 times a second and is accurate to one second in 3,000 years. Such precision in the transmission of signals helps assure that voice and data messages are conveyed with utmost fidelity and accuracy.

#### **Meeting present and future needs**

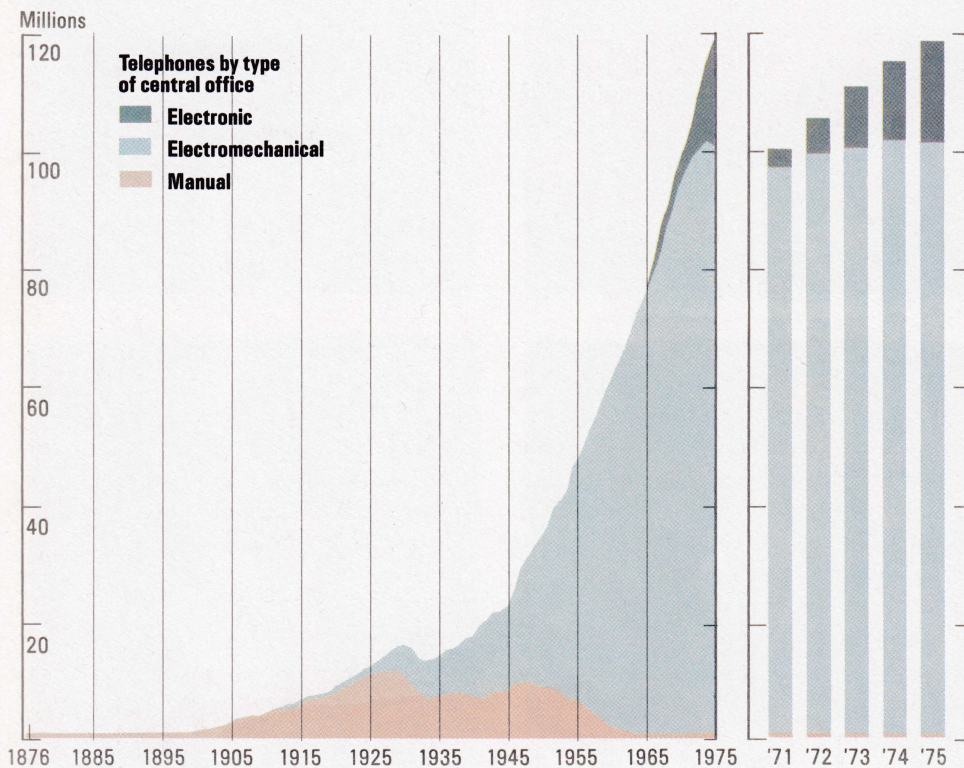
The second factor that has fostered the network's development is the large capital investment made year after year to meet the present and future needs of our customers. Some \$45 billion has been spent in this endeavor in the last five years.

Enormous as this investment in telephone plant is, our aim has been—and still is—to spend only what is absolutely necessary to meet the needs of growth, service improvement and expansion.

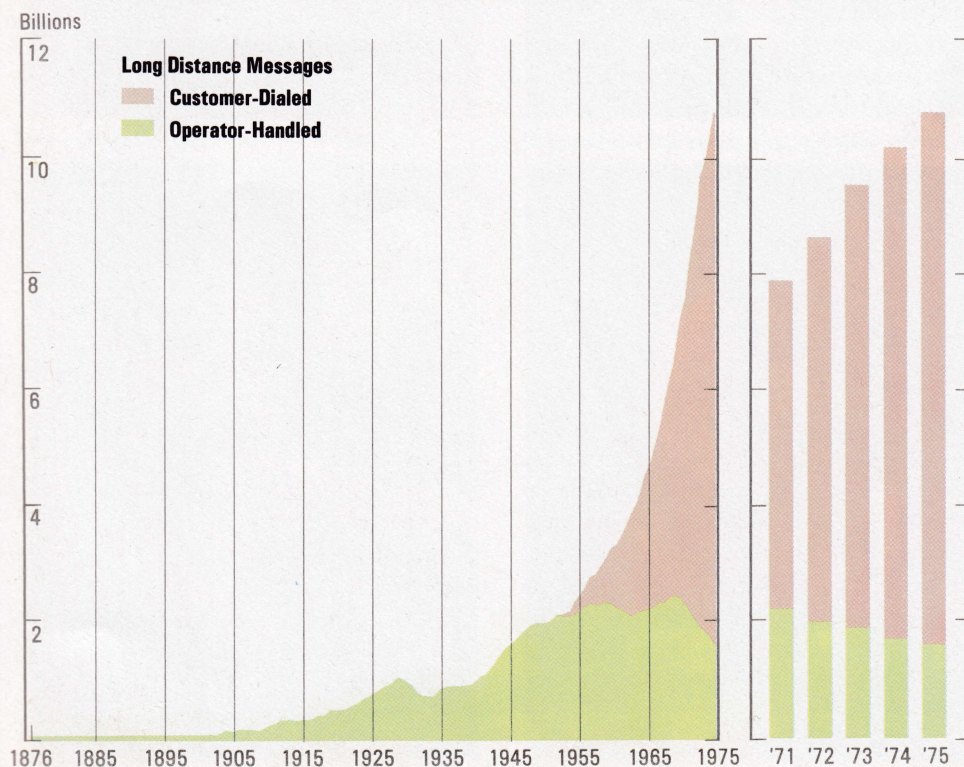
Moreover, 10 years ago the average investment per mile of our long-haul circuits was \$25; now it is about \$16—and we expect to be adding new circuits in the near future at a cost of less than \$2 per mile. This trend is by no means exhausted. We expect unit costs to go lower still as successive generations of innovation produce transmission and switching systems of still higher capacity.

The nationwide communications network began with the completion in 1884 of a long distance line between Boston and New York by way of Rhode Island and Connecticut. Since then the network has become a valuable resource for the nation, a vast, technically sophisticated system that exists for only one purpose: to provide the United States public with the best communications service possible.



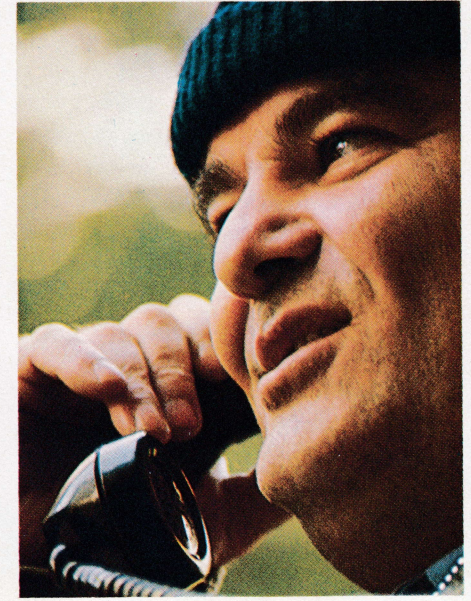
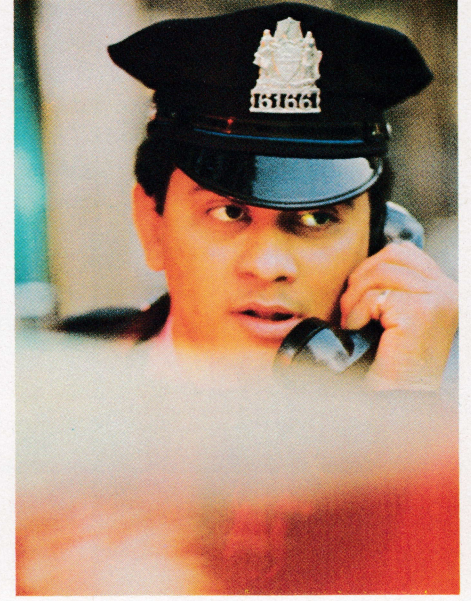


At the end of 1975 there were 118.5 million Bell System telephones in service—4.1 million of them added during the year. Just as the appearance of telephone sets has changed over the years, so too has the technology of the central office equipment through which calls are connected. After World War I—with the installation of the Bell System's first major electromechanical switching centers—the massive conversion to dial telephones began. Since 1965 an equally massive conversion to electronic switching systems has been underway. In 1975, 15 per cent of Bell telephones were served by these systems, which can provide new customer services and are more flexible and economical than electromechanical systems.



The volume of long distance messages handled by the Bell System was 5.2 per cent higher in 1975 than the year before. With the introduction of direct distance dialing in the 1950s, customers began dialing their long distance calls directly—thereby reducing operating costs for the telephone companies and, on virtually all long distance calls, attaining savings through lower rates. Of 1975's 10.7 billion long distance messages, 88 per cent were customer-dialed.







# Customer Service

"The Bell System has grown to be one of the largest corporations in the country, in response to the telephone needs of the public, and must keep up with increasing demands. However large it may become, this corporation will always be responsive to the needs of the people, because it is animated by the spirit of service."

AT&T Policy Statement (1914)



*Once there was the telephone; now there are many—and a wide assortment of services tailored to the increasingly diversified needs of American society. As it has from the beginning, the telephone links families and friends. But, more and more, business and government rely on the telephone to coordinate and control undertakings on a continental—sometimes a global—scale. Today it is not unrealistic to think of the terminals to the telephone network as “information processors” that translate not only the spoken word but data and pictures as well into electrical signals for transmission to whatever “distant place” they may be needed. The Bell System takes it as its mission to match its technology to these new needs and to meet them with quality services, fairly priced.*

Through most of the telephone industry's first century, standardization of the services and equipment arrangements offered to the public was essential—essential because the economies derived from standardization would serve to assure the widest availability of telephone service at the lowest overall cost to the entire public.

But with the public's expectations of communications changing and broadening, our next hundred years will be characterized much more than in the past by diversity and versatility. To give our customers the kinds of services they want and, at the same time, increase revenues by taking full advantage of this business' prospects for continued growth, we are determined to achieve a reputation for excellence in marketing and merchandising to match our reputation for technological and managerial innovation.

## **New, diverse services were offered**

Telephone company facilities, once devoted almost entirely to voice calls, are now accommodating information in virtually every form—including in an increasing volume of data communications, messages in computer language. Bell System revenues from this source have been growing at an average annual rate of nearly 20 per cent over the last five years, making data communications one of the fastest growing segments of our business.

Our data communications offerings encompass transmission and switching, media conversion and communications processing.

At the end of 1975, Dataphone Digital

Service, provided through an interstate network especially engineered to meet the unique needs of data customers, was available between 24 cities. Upon FCC approval, some 40 more cities will be added to this all-digital network in 1976.

New developments in the data terminal market include our Transaction I Telephone, with which banks and merchants can access computers to verify checks and credit cards. It went into production in 1975. This year, another version—the Transaction II Telephone—will become available with additional features, such as a numeric display and hands-free operation.

Still another terminal, the Vu Set\* data display system, was offered late in 1975. This compact 64-character display unit, using Touch-Tone® signaling, provides easy access to computers for a wide range of business applications.

Also growing fast is Wide Area Telecommunications Service (WATS), which is designed for business customers who make or receive large volumes of telephone calls. Revenues from WATS in 1975 amounted to \$1.4 billion, a 21 per cent increase over 1974 that can be attributed in part to a Systemwide sales campaign conducted by the Bell telephone companies to stimulate greater use of this service.

Revenues from private line services furnished to business and government increased nine per cent in 1975.

The requirements of large users of telecommunications grow more specialized and technically sophisticated every year, and to meet their needs we are developing, producing and marketing new, cus-

\*Trademark of Plantronics, Inc.



tomized systems and equipment.

For example, we introduced in 1975 an all-electronic system called the Dimension\* private branch exchange (PBX). A solid-state system that offers customers a large choice of special communications features, the Dimension PBX represents a major advance in the art of applying stored program control concepts to the design of PBX systems. By the end of 1976, we will have a family of Dimension PBXs able to serve most business customers' needs, regardless of size.

The Com Key\* 718 and Com Key 1434 key telephone systems, introduced in 1973 to bring together popular key system features in packages wired and tested in the factory to reduce installation costs, continue to meet with outstanding customer acceptance. To extend the advantages of these systems to other segments of the market, the Com Key 416 system was developed and introduced on a selective basis in 1975. We plan to further expand this family of key telephone products.

In addition, a smaller version of our Touch-a-matic® telephone set, this one for recording up to 16 telephone numbers for touch-of-a-button dialing, has been developed for residence and single-line business customers.

### **Telephones get new styles, shapes**

Our efforts to bring more diversity to the services we offer and the products we make are not limited to any one segment of the business, but rather span the full spectrum of our customers—residence customers no less than any others.

The decisions to produce Princess® telephones in 1959 and Trimline® sets in 1965, for instance, were made in recognition that residence customers want variety in their telephones. Then, in 1974, we introduced Design Line\* telephones and sold 270,000 of them through 1975. These sets, some designed and manufactured by Western Electric and some by non-affiliated suppliers, are now available in 74

combinations of style, shape, color and material. Three new styles were added to the line in late 1975.

Making telephone shopping more convenient for our customers, 69 PhoneCenters—or “telephone stores”—were in operation at the end of 1975, nine of them opened during the year. An additional 110 PhoneCenters are planned for 1976. The sets on display at these stores are modular in design, as are most of the telephones now being manufactured.

Modular telephones have handset cords and phone-to-wall lines designed as plug-in units rather than wired connections. Using plug-in components not only for telephones but for other telecommunications equipment reduces costs and simplifies installation and maintenance.

Other steps we have taken in recent years to make telephone calling easier include the development of Touch-Tone service and the introduction of direct dialing for international calls. At the end of 1975, 31 per cent of our customers were using Touch-Tone service where it was available, while customers in 265 cities and towns were able to call 32 countries without requiring an operator's assistance.

Despite the many dramatic changes taking place in communications, what has not changed since the earliest days of this enterprise—nor will it—is our determination to keep improving the quality of our service and to price that service fairly.

Today, telephone service is better than it ever has been before.

Out of an estimated 24 million installation visits in 1975, about 97 per cent were made on time. On the average, more than nine out of 10 of our residence and small business customers receive their service within five days of requesting it—more than six of 10 within two days.

We also gauge the quality of our service by tracking the number of trouble reports we receive in a month for each 100 customer stations. Such customer service trouble reports declined to 4.6 in 1975, a

four per cent improvement over 1974.

Still another indication that our service keeps getting better is the number of “weakspots” that we report to the Federal Communications Commission. These weakspots—elements of our service that do not meet objective standards—were reduced from 395 in 1970 to 140 in 1973 and to 37 for 1975.

### **Our goal is “zero weakspots”**

Indeed, so confident are we of our ability to improve on this record that we have set for ourselves the stiff goal of achieving “zero weakspots” by Day One of our second century: March 10, 1976, a hundred years from the day intelligible speech was first transmitted by Mr. Bell.

Another reflection of improving service is the decline in the number of complaints about service matters that customers are making to state regulatory commissions and our own executives. Customers made fewer than half as many such complaints in 1975 as in 1970.

On the other hand, we know from our own surveys of customer attitudes that there is increased customer concern of late over higher telephone rates.

As the result of inflationary pressures, local telephone rates have gone up 40 per cent since 1965. During that same period, however, the Consumer Price Index rose 74 per cent and after-tax income per capita 107 per cent. Interstate long distance rates went up but four per cent in that time.

In fact, had the cost of telephone service risen as fast as the CPI in the last 10 years, the average Bell System customer would be paying about \$16 more a month.

That our rates have risen more slowly than the price of so many other goods and services—while the quality of our service continues to improve—is directly related to the cost benefits inherent in an integrated organization with end-to-end responsibility for service. In the most fundamental sense, the Bell System is an enterprise organized to serve.

\*Trademark of AT&T Co.



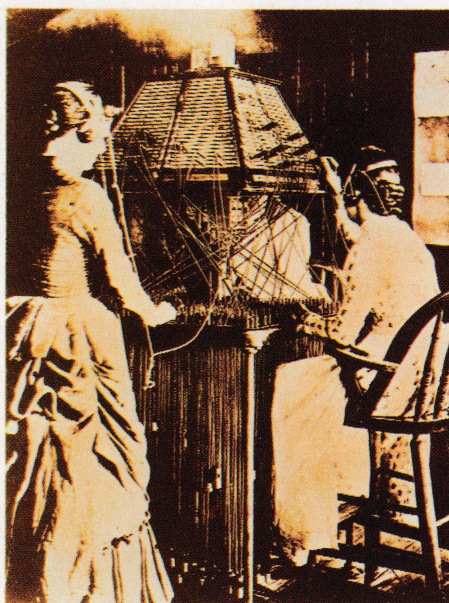




# Organized to Serve

"The Bell System was founded on the broad lines of 'One System, One Policy, Universal Service' on the idea that no aggregation of isolated independent systems, not under common control, however well built or equipped, could give the public the service that the interdependent, inter-connecting, universal system could give."

AT&T Annual Report (1909)



*Why there must be one Bell System was never more convincingly illustrated than by the completion in 1975 of the final installation of the world's first electronic toll switching machine. (A portion of the machine is shown under test on the opposite page.) That so large and technically demanding a project and one requiring so substantial an advance commitment of capital and human resources could have been brought to the point of service so readily and so economically by companies of diverse and competing interests is unlikely indeed. The Bell System's vertically integrated structure was developed to assure the telephone system a source of continuing innovation and a reliable source of high quality, compatible equipment. What was essential in 1881, when the "pyramid" switchboard (above) was introduced, is doubly so in today's technologically demanding era.*

Within six years after Mr. Bell's excited call to Thomas Watson, "Come here, I want to see you," the structure of the enterprise later to become known as the Bell System was beginning to take shape.

By 1882 the American Bell Telephone Company, a forerunner of AT&T, had acquired the Western Electric Company to assure a reliable source of quality equipment, and a small group of people—for a while including Mr. Watson—was employed to develop ways to make telephone service better. And as the years went by, what had been a loose association of local telephone companies was formed into a nationwide system pursuing a common goal: good service at reasonable prices.

Then, as now, a coordinated systems approach, integrating the major functions required to provide service—research and development, manufacturing and operations—offered the most efficient method of achieving that goal.

Today, the Bell System—AT&T and its Long Lines Department, Bell Laboratories, Western Electric and the Bell operating telephone companies—continues to look to the strengths of its integrated organization to fulfill its obligations to the public and to its share owners.

## No. 4 ESS—a product of planning

With the volume of long distance messages increasing—10.7 billion in 1975 and a forecasted growth to nearly 70 billion in the year 2000—it became clear some years ago that it would be neither economically nor operationally feasible to continue to rely solely on electromechanical equipment for

switching long distance calls.

Thus, Bell Laboratories, building on its own earlier innovations in applying modern electronics to telephone switching, began designing a totally solid-state and digital toll switching system, a technological leap forward from the smaller electronic switching systems that were introduced for local service in 1965.

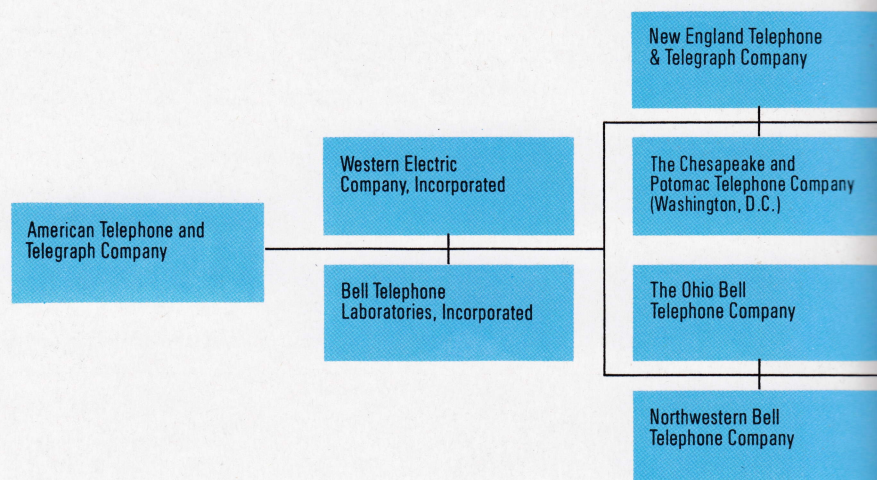
The introduction in 1976 of this No. 4 ESS, a long distance electronic switching system able to process up to 550,000 calls an hour, is one of the best contemporary illustrations of the benefits that flow from a comprehensive, systemic approach to planning and applying new technology in telecommunications. The development of the No. 4 ESS, one of the largest investments in capital and engineering man-hours ever made by private enterprise, required a long-term commitment of financial and human resources that less technically integrated organizations would find difficult, if not impossible, to make.

The initial expenditure for the development of the No. 4 ESS was made by Western Electric five years before the first unit was ever installed, and some \$400 million subsequently was spent to bring it into operation. But because the new system costs less to maintain—and because fewer of them will be needed than the electromechanical machines that would be required to achieve equivalent toll-handling capacity—savings in capital and operating expenses are expected to reach \$1.5 billion a year by 1985.

Every step of the process, from the design of the system to its first implemen-



**The Bell System.** AT&T's 21 principal operating telephone subsidiaries serve approximately 80 per cent of the nation's telephones. All but four are wholly-owned by AT&T: Pacific Telephone (89.8%), Pacific Northwest Bell (89.3%), Mountain Bell (88.6%) and New England Telephone (86.0%). Also part of the Bell System are two telephone companies in which AT&T has a minority ownership: Southern New England Telephone (16.8%) and Cincinnati Bell (25.7%). AT&T owns the Western Electric Company, the Bell System's manufacturing and supply unit, and—with Western Electric—Bell Laboratories, for research and development. Interstate and international services are provided by AT&T's Long Lines Department in cooperation with the operating telephone companies. On June 30, 1975 AT&T and Bell Canada terminated by mutual agreement the associated relationship that had existed since 1880.



tation, was marked by close coordination and a free flow of technical and operating information among Bell System units.

### Restoring service in New York City

The effectiveness of the Bell System's integrated organization is most dramatically visible to the public in times of emergency—as, for example, when a devastating fire struck a New York Telephone Company switching center in February, 1975, leaving 100,000 customers in a 300-block area of Manhattan without telephone service.

Even before the fire was out, preparations were underway to airlift hundreds of tons of switching and cable equipment to the city, network managers were rerouting calls around the stricken area and mobile phone units were being trucked in from out of state for use by residents of the area during the emergency.

Nearly 4,000 Bell System people, some from other parts of the country, went to work in a round-the-clock operation that restored service in 23 days—a job that under normal circumstances would take 18 months or longer. It was the worst service disaster in our history, but its effects were mitigated by the ability of the various units

of the System to work as one.

Because of our unique organizational and technical capabilities, we frequently have been called upon by the federal government to work on national defense projects and to design and furnish equipment for government communications systems. Our efforts in behalf of national defense have ranged from the development of Army field telephones in World War I, to the design and production of radar systems in World War II and the postwar development of critical missile defense systems.

In 1975, continuing our close involvement with the space program, we provided an array of communications and guidance services and facilities for the Apollo-Soyuz space mission. We also completed streamlining the Federal Telecommunications System, which provides switched communications service for more than a million telephones in government offices throughout the country.

Also in 1975, we negotiated a contract with the Department of Defense to plan and engineer a new, modern communications network for the government of Iran and to provide assistance to that country in operating its existing com-

munications system. A subsidiary, American Bell International Inc., was established to carry out the contract.

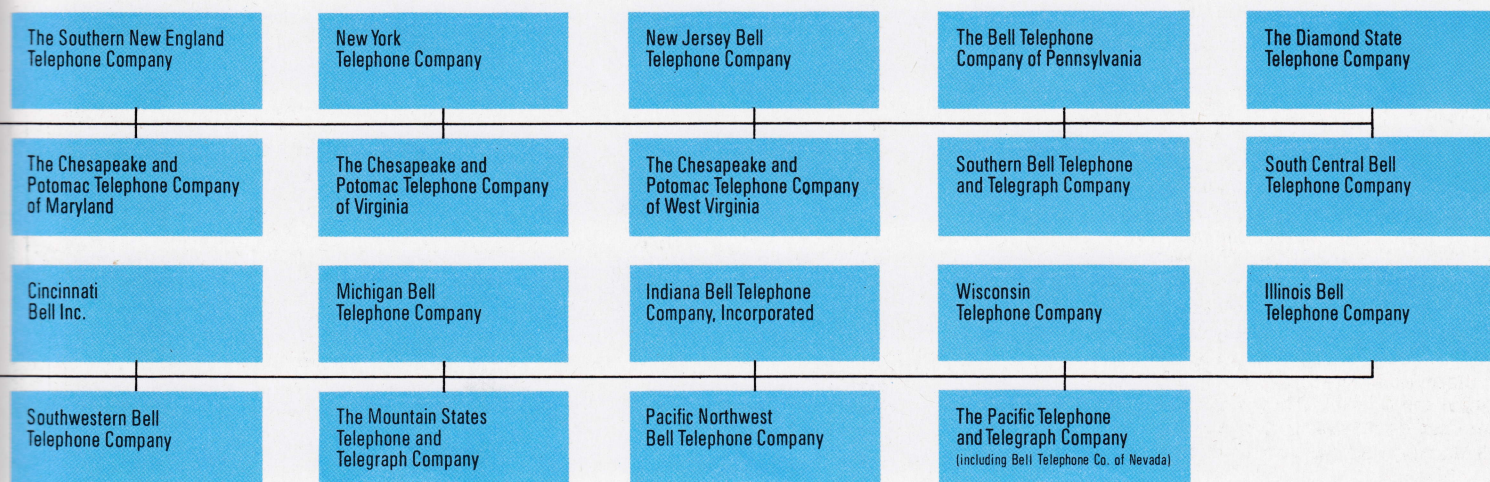
### Antitrust arguments are heard

The most serious challenge of recent years to the integrated structure of the Bell System is an antitrust action, filed by the Justice Department in November, 1974, that seeks divestiture of Western Electric and other parts of the System, including some or all of the Long Lines Department and perhaps Bell Laboratories.

Oral arguments on the threshold issues of whether the suit is barred by the 1956 Final Judgment concluding the antitrust case the Justice Department brought against the Bell System in 1949 or by the pervasive regulation to which our business is subject were heard last July in U.S. District Court in Washington, D.C.

Our position is that, because the Bell System already is subject to pervasive regulation on the federal and state levels, the issues raised by the Justice Department should be settled by regulatory agencies and the Congress, not the courts. In addition, we pointed out that the structure of the Bell System was recognized as valid by





the Congress when it passed the Communications Act of 1934 and again by the court in the 1956 Consent Decree.

At this writing, we are awaiting the Judge's ruling on these questions.

#### The impact of competition is studied

In April, 1975, comments were filed in the FCC's inquiry—long sought by the Bell System—into the economic implications of introducing competition into the terminal equipment and intercity private line segments of the business. In recent years, an increasing number of customers have been providing their own terminal equipment and, in the private line field, several intercity facilities operated by specialized common carriers are in service and others are planned.

Stressing, as we have previously, that competition will result in higher overall costs and in increased basic telephone rates for the great majority of residence customers, we stated at the start of the inquiry that there are no substantial economic facts to support changing the regulated natural monopoly structure of telecommunications. In short, we said, the ultimate question to be decided is whether and to what

extent competition will benefit the public.

It currently appears that this study of competition's effect on the average user will not be completed for some time. Nonetheless, the Commission ruled in October that, effective April 1, 1976, it will allow customer-provided ancillary equipment—answering sets and data modems, for example—and extension phones to be connected directly to telephone lines, provided the equipment or protective circuitry has been registered with the FCC. The Commission's order also requires registration of terminal equipment provided by the common carriers.

Because we have serious reservations about the ultimate impact of this decision on the quality and cost of telephone service, we have asked that this matter be reconsidered. At present, connection of customer-furnished equipment is permissible only when telephone company-provided protective connecting arrangements or, as with automatic answering devices, built-in protective modules are used to guard against potential damage to service from malfunctioning equipment.

As it has for nearly a hundred years, the Western Electric Company continues

to be the primary supplier of telecommunications equipment to the Bell System telephone companies. Among the reasons for this are the quality of its products and its prices, which on the average are about 80 per cent of the lowest general trade prices.

The operating telephone companies also purchase substantial quantities of telecommunications equipment manufactured by companies other than Western Electric. In 1975 they bought, through Western, more than \$800 million of such equipment, and over \$300 million more was purchased directly, in some cases with the assistance of AT&T's Purchased Products Division.

Our consuming interest is in obtaining the highest quality equipment at the best price—from whatever source.

If the equipment and systems developed by Bell Telephone Laboratories and manufactured by Western Electric so often meet the System's criteria in quality and price, it is largely because of the common goal that links the Bell System's research, manufacturing and operating units. And it is, we believe, to the public's advantage that this association be maintained.



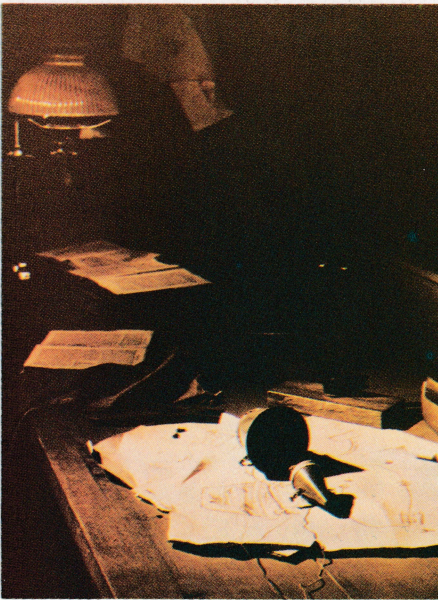




# Innovation

"Don't keep forever on the public road, going only where others have gone and following one after the other like a flock of sheep. Leave the beaten track occasionally and dive into the woods. Every time you do so you will be certain to find something that you have never seen before."

Alexander Graham Bell (1914)



*Innovation in telephony is traced to Alexander Graham Bell's experiments at a small attic workshop table (above) and to early research and development efforts to transform Mr. Bell's invention into a dependable commercial service. It continues today as AT&T, Bell Laboratories, Western Electric and the operating telephone companies work as one to develop and bring into operation new technologies and management systems to improve service, reduce costs and increase efficiency. Toward the end of 1975, a lightwave communications system—by which messages are communicated by light pulses through cables of glass fibers (left)—was made ready for testing this year.*

Innovation may begin with a new theory or, as Mr. Bell suggested, with an unexpected observation, but that is *only* the beginning. Innovation is more a systematic process than an occurrence.

Important discoveries must travel a long and difficult path from conception through development, manufacture, marketing and implementation; and the outcome of the journey depends on the availability of resources and the effectiveness of the interaction required along the way.

In the Bell System, the elements needed to carry out the complex process of innovation exist within one planned structure. At any given moment, on any given project, the interrelated activities of invention, systems engineering, development, trial and modification are under way in dozens of places—with AT&T, Bell Laboratories, Western Electric and the operating units of the Bell System working together in common endeavor. That endeavor, simply stated, is to increase the usefulness of telecommunications and to reduce costs.

## Lightwave technology advances

Exciting progress continues to be made in lightwave communications technology, the transmission of messages by light pulses through closely bundled, hair-thin glass fibers.

In 1975, important advances were made at Bell Laboratories toward the development of miniature lightwave circuits similar to the integrated circuits of electronic systems. In addition, engineers successfully fabricated a better, longer-lived

laser that is compatible with these new lightwave circuits.

All the components of a lightwave transmission system have now been built and tested in the laboratory. The next step, currently being taken, is to test an integrated system in an environment approaching field conditions.

By the end of January, 1976, such a system was set up in Atlanta, with optical transmitters and receivers and other components installed, and 2,000 feet of cable containing more than a hundred glass fibers placed in underground ducts for experimental use this year.

The origins of the system now being tested can be traced to Bell Laboratories' efforts over the years to develop highly transparent glass fibers, light emitting diodes, and semiconductor lasers no bigger than a grain of sand.

Assuming that lightwave communications proves to be economically as well as technically feasible, the first application—perhaps in the early 1980s—is expected to be in large cities, where the distance between central offices is short, the volume of traffic high and duct space under the streets is at a premium.

In 1975, Bell Laboratories prepared for a field study in Newark, N. J., of its new High Capacity Mobile Telecommunications System. A year-long field trial, with more than 2,000 customers participating, is planned for 1978 in Chicago.

By the year 2000, this system could be serving millions of users nationwide.

With today's low-capacity mobile systems, a centrally located, high-powered



radio station serves an entire metropolitan area. By contrast, a fully developed cellular high-capacity plan uses a series of low-power directional antennas to cover small areas, referred to as cells. As the customer drives along, the call is "handed over" from one cell to another. Because the radio channel used within one cell can be simultaneously reused in others nearby, the system is notable for its efficient use of the radio frequency spectrum.

This system will provide mobile service comparable in quality to regular telephone service. Its introduction, however, is being opposed or questioned by radio common carriers as well as by some manufacturers of mobile station equipment, even though we have agreed that we will not undertake to manufacture radio equipment ourselves but purchase it from outside suppliers.

### **Computer systems bring new efficiency**

More and more innovations in the Bell System are emerging in the development of computerized systems for planning, managing, operating and maintaining the nationwide network and for performing the various functions associated with telephone service.

The increased efficiency—and resulting cost savings—that such systems offer contributed significantly in 1975 to our efforts to improve earnings despite the slackening in demand for service.

To give telephone traffic engineers improved data to administer the flow of long distance communications, we introduced a new "real time" computerized network management system in 1975. The system permits immediate action to be taken, including the rerouting of calls, when equipment malfunctions or extra heavy calling threaten to cause congestion on the network.

First placed in service in Wisconsin's Milwaukee network management center and, late in the year, in a larger regional center in Wayne, Pa., this system will be

put in operation in 30 or more locations over the next several years.

Besides helping to keep telephone calls moving smoothly over the nationwide network, computers and computer systems are being used with increasing frequency in the Bell System to improve maintenance procedures and to handle large, complex record-keeping functions.

Following are some of the systems introduced or expanded during 1975:

- Switching Control Centers, using mini-computers to provide centralized remote maintenance of electronic switching offices, were placed in operation in a number of cities.

- A remote control system that tests trunk lines—the telephone circuits that run from one switching center to another—was operating in 23 locations at year's end. This system offers the advantage of quicker detection of transmission and operating problems than is possible with manual testing procedures.

- A system of Automated Repair Service Bureaus, which uses computers instead of card files to maintain all pertinent information for the repair of individual telephone lines, was introduced in Houston.

- More Bell System companies began using a cost-saving computerized system for controlling inventories of plug-in parts and equipment. With the improved administration and control that the system affords, inventories of spare equipment can be reduced without affecting service.

- As part of the Bell System's continuing effort to streamline record-keeping procedures, Bell Laboratories and the Southwestern Bell Telephone Company began a field trial of a computerized system to process service and work orders in the Dallas area. The trial involves more than 600 computer programs and about three million machine instructions to maintain an inventory of central office and outside plant facilities.

By the use of computer systems to mechanize facility and equipment inventory records, we should increase the effi-

ciency of this work by more than five per cent by 1980.

Computers can and do relieve telephone people of some of the more tedious, time-consuming work, but in the long run improved efficiency continues to depend importantly on the efforts of our managers and employees to find better ways of doing the many tasks that go into providing telephone service.

At Western Electric in 1975, such efforts ranged from improving supply methods to the development of a tiny protective device to reduce sparking between the metal contacts used in switching systems. Called a laser generated network, this device can be made as small as one-thirtieth the size—and at half the cost—of the capacitor and the resistor it replaces.

Each year Western Electric makes equipment using over 500 million pairs of electrical contacts made of palladium, a rare, costly metal. To reduce costs, engineers at Bell Laboratories developed a new palladium-silver alloy to replace pure palladium for contacts on most Bell System relays and switches.

Six of seven planned Western Electric Material Management Centers were open and operating at the end of 1975. These regional supply centers quickly replenish the materials stocked in the local service centers from which the operating companies draw equipment made or purchased by Western Electric.

### **Productivity—a profit of innovation**

One measure of the value of innovation is the extent to which it promotes increased productivity.

Over the years since World War II, the Bell System's total factor productivity—which includes both capital and labor inputs—has improved at a rate twice that of the private sector of the national economy. And 15 years ago, to take a traditional measure of productivity in our business, it took 96 employees to serve 10,000 telephones. In 1975 it took 65.



Installation productivity, which is measured on the basis of the time it takes to install station equipment, improved 45 per cent in 1975 over 1970.

We have no greater potential opportunity for productivity improvement than in increasing the utilization of the nationwide network. With the Independent telephone companies, we are engaged in a program to reduce the number of toll calls that now go uncompleted as a result of equipment blockages or routing problems.

#### Promoting innovation for public benefit

To promote innovation and assure continuing improvement in service and the efficiency with which it is provided, the Bell System spent \$684 million for research and development in 1975. Beyond that, a minimum of \$500 million is spent annually to train management and nonmanagement employees in the technical and managerial skills required in today's complex communications environment.

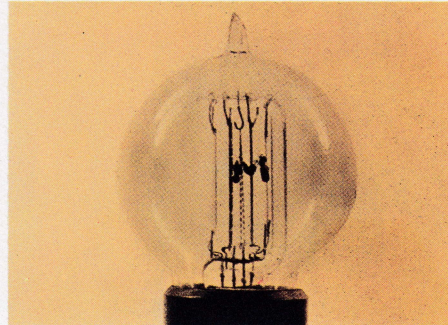
Western Electric and operating telephone company people, for example, are training side by side at Western's new training center in Dublin, Ohio, where they learn through hands-on training with switching equipment that duplicates conditions in central offices. The Bell System Center for Technical Education near Chicago, which provides more than 80 specialized technical training courses, has been in operation for eight years, while in 1975 our Corporate Policy Seminar for higher level management people went into its second year in Princeton, N.J.

The nationwide telecommunications network has grown to be a vital national asset because the resources and the organizational stimulus necessary to carry innovation from the laboratory to public use have in the main been provided over the years by an integrated enterprise—the Bell System.

After a hundred years of service, our commitment to innovation is no less than it has ever been.

#### SOME MILESTONES IN THE HISTORY OF TELECOMMUNICATIONS TECHNOLOGY

**Vacuum Tube Amplifier.** Based on Dr. Lee De Forest's invention and on research at Western Electric and the General Electric Company, vacuum tube amplifiers were placed at intervals



*Vacuum Tube Amplifier*

along the first transcontinental telephone line, boosting voice signals before they weakened and faded away.

**Network Theory and Filters.** Theoretical investigations of electrical networks led in 1917 to the invention of the electric wave filter, which made it possible to carry many conversations on a line at the same time. A shortage of high-grade natural quartz, from which filters in communications equipment are made, prompted development of man-made quartz crystals by Bell Laboratories and Western Electric.

**Quality Assurance.** Scientific methods of statistical quality control, now used by industry throughout the world, were developed half a century ago in the Bell System.

**Negative Feedback.** Signal-boosting amplifiers were causing noise and distortion until, in the latter part of the 1920s, a technique was discovered at Bell Laboratories for "feeding back" part of the signal coming from the amplifier for comparison with the signal coming into it. It made possible multichannel cable systems.

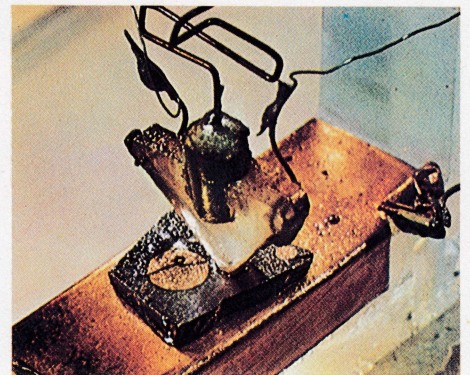
**Improvements in Cable Transmission.** Since the invention of the coaxial cable system at Bell Laboratories in 1929, improvements in this cost-

saving method of transmission have continued. Today, a single pair of coaxial conductors can accommodate over 10,000 simultaneous calls, about 20 times as many as when a coaxial system went into commercial service in 1941.

**Logic Control Systems.** The early use of digital logic to store and interpret dialed information for telephone switching led to the design and operation at Bell Laboratories of the first electrical digital computer in 1937—and to a variety of electronic switching systems.

**Encoding of Signals.** The formulation of an information theory at Bell Laboratories in the mid-1940s provided a complete mathematical theory of communications—and led to better understanding of the design of digital transmission systems. Such systems carry calls as encoded pulses rather than continuous signals and are now used almost exclusively in additions to the nationwide telecommunications network.

**Transistor and Solid-State Electronics.** Modern solid-state electronics—commonplace today in the design of telecommunications equipment, computers, television sets, pocket calculators, pacemakers and so on—was realized with the

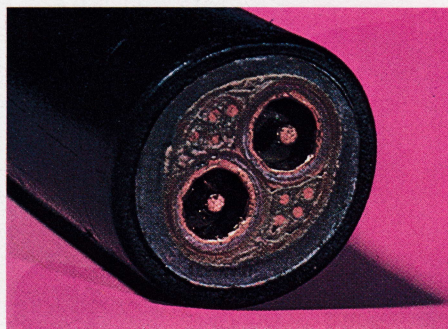


*Original Point-Contact Transistor*

invention of the transistor by three Nobel Prize-winning scientists at Bell Laboratories in 1947, and matured with dozens of other innovations since then.

**Microwave Radio Transmission.** After years of research, the Bell System began using microwave radio commercially in 1948 to transmit telephone and television signals. In 1962, with the launching of Telstar, the principle of microwave transmission was applied to satellite communications.

**Direct Distance Dialing.** Bell System customers began dialing long distance calls without operator assistance in 1951, a change requiring the development of a nationwide uniform numbering plan and an automatic accounting system in addition to new signaling techniques and switching equipment.



*Two-Tube Coaxial Cable*



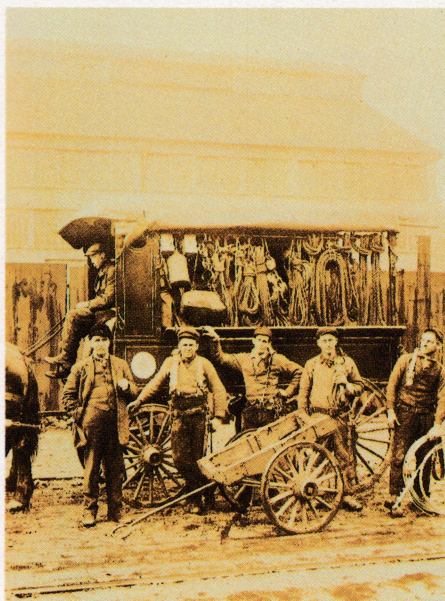




# Bell System People

"This Company and its associated companies have been foremost to establish, and propose to continue their efforts to maintain good wages, good working conditions and relations of the most cordial kind for and with their employees—a fact which has been of the utmost importance to the efficiency of their service to the public!"

AT&T Annual Report (1915)



*It's a long way from the horsedrawn construction wagon that provided the backdrop for the 1910 telephone company construction crew above to the cable truck beside which their modern counterparts pose on the opposite page. The technology has changed. Personal styles have changed. But what hasn't changed is the personal sense of responsibility for providing a vital public service that makes it something special to be a telephone.... person. At left, Pacific Telephone and Telegraph Company employees: (top row) Haskell Dunn, Don Huntley, Dale Deem; (middle) Arnie Fernandez, Ken Williams, Don Bollschweiler, Fritz Worland, John Siebert; (bottom) Karl Barsch and Elisa Toureau.*

Telephone company people, from the rural "Central" operator who knew by heart everybody's telephone number (and most people's whereabouts) to the modern day installer with his—or her—tool belt tied snugly around faded jeans, are part of Americana, part of every community's daily life.

Often, like the service they provide, they are taken for granted by the customers they serve. But come a crisis—a customer who needs emergency assistance or a town whose communications lifeline has been cut by floodwaters—their dedication and spirit of service once again comes sharply into focus.

At the end of 1975, there were 939,100 Bell System employees. Some worked in telephone operating centers, others in laboratories and factories. Some came into frequent contact with customers, most worked behind the scenes.

## **They shared a common heritage**

All were engaged in a vital, growing business. And all shared in a common heritage that each succeeding generation of telephone people has enhanced—a heritage of service to the public, a heritage of craftsmanship in the delivery of that service, a heritage of personal concern for the individual needs of the millions we serve.

As the Bell System has grown in size over the years, we have sought to avoid the remoteness that can accompany bigness by opening new lines of personal communications with our customers and share owners.

The most important contacts with

customers, of course, are those made daily by telephone employees in the normal course of providing service. But more structured efforts that allow for personal give-and-take between customers and the company are also useful. An example is the Illinois Bell Telephone Company's "customer dialogue" program—meetings between small groups of customers and company executives at which customer problems are discussed and company practices explained.

To give our share owners an opportunity to hear firsthand how the business and their investment are being managed, we instituted a Share Owner Visit program in 1956. Since then, more than a million owners of AT&T common shares—some 53,000 in 1975—have been visited by Bell System managers, often after business hours. These visits offer ample opportunity for free-wheeling discussions between owners and managers.

It was to our share owners, as well as to the public, that in 1975 we reported the results of audits undertaken in response to charges concerning misuse of corporate funds by some employees in Texas and North Carolina. Investigations by governmental authorities are continuing in those two states. The audits for the rest of the Bell System for the years 1971-74 disclosed that employees had improperly used some \$9,520 in corporate funds for political activities. Complete restitution to the companies concerned has since been made.

Maintaining the efficiency of our operations in the face of 1975's slower growth required that we reduce our work



force through a combination of layoffs and attrition. At year's end, we employed 60,700 fewer people—including some 37,000 Western Electric employees—than we did at the beginning of the year.

Reducing our work force, while necessary, has not been a happy experience, and we have done what could be done without sacrificing efficiency to shield our employees from the worst effects of the recession.

### **Equal employment gains achieved**

In the meantime, some 750,000 non-management employees received cost-of-living and other scheduled wage adjustments. The increases, as provided for in the labor contracts negotiated in 1974, will add about \$1 billion to our annual payroll.

Effective at the start of 1976, our benefit and pension plans were amended to incorporate changes in vesting and other provisions required by the Employee Retirement Income Security Act of 1974.

In the area of equal employment opportunity, we achieved 97 per cent of the intermediate objectives agreed to by the company and the government to facilitate the movement of minorities and women into better jobs during the year.

Minorities increased 21.8 per cent and women 9.2 per cent in the higher management positions over the previous year. Minority and women employees in these jobs rose to 9,652 by year-end. Minorities also continued their movement into higher paying nonmanagement jobs as evidenced by a 16.1 per cent increase in sales positions and a 9.7 per cent increase in skilled office and clerical assignments.

Both men and women also achieved further progress in their placement into nontraditional types of jobs. Women in the skilled crafts and men in semiskilled office/clerical jobs increased seven per cent and 21.1 per cent, respectively.

Reaffirming a long-standing policy, we announced an affirmative action program for hiring the handicapped.

As they have for so many years, the

Bell System companies and their employees continued in 1975 to take an active role in local community and educational programs. For the companies, this participation took a variety of forms, including the sponsorship of programs developed in cooperation with educators to promote career awareness among students and to increase their understanding of the economic and social factors involved in business decision-making.

Increasing numbers of telephone people are taking part in organized community activities through the Telephone Pioneers of America, whose members are longer-service and retired employees. Telephone Pioneer groups are sponsoring some 1,400 service projects, many of them volunteer programs to help the handicapped, including—in the spirit of Alexander Graham Bell, a teacher of deaf children—persons who suffer from impaired hearing.

Founded in 1911, the Telephone Pioneers of America has grown in membership to about 430,000 people.

In 1975, Bell System contributions to charitable and educational causes amounted to approximately \$20 million, over \$5 million of it in support of colleges, universities and related educational associations.

### **Energy saved and materials recycled**

Continuing our efforts to make more efficient use of scarce natural resources and, at the same time, reduce costs, our energy consumption in 1975 was just about the same as the year before. This is a considerable achievement in view of the year's growth in business and after having reduced our consumption of energy by 10 per cent in 1974.

Had no further energy savings been accomplished, our 1975 energy costs would have been about \$80 million higher.

The Bell System routinely recycles telephone sets and other station apparatus, returning them to service after refurbishing. In 1975, the amount of such equip-

ment recycled reduced capital expenditure requirements by \$1 billion.

We also are salvaging from obsolete equipment substantial amounts of lead, copper and precious metals—about 112,000 tons in 1975—for use in the manufacture of new plant. In fact, about a third of Western Electric's need for copper is met by recycling old cable and apparatus. In addition, pilot programs are under way at Western Electric plants in Atlanta and New York to develop an economical system for recycling plastic material.

### **Continuity: policy, purpose, structure**

As noted at the outset, this report was prepared with the accomplishments of the year just past uppermost in mind. But, published as it is in the centennial year of the telephone's invention, it also has sought to convey the continuity of policy, purpose and structure that has characterized the history of the Bell System—and that made possible the accomplishments of 1975.

Intrinsic to the success of this continuity has been the public's acceptance of the telephone industry's place in the economy as a natural monopoly—and the resolve of those who manage this business that this franchise never be abused.

What we might hesitate to say about ourselves after a hundred years of service was said by the editors of *Fortune* magazine in their January, 1975 issue.

"AT&T, though it is a near monopoly, doesn't behave like one," said *Fortune*. "Monopolies, for instance, are supposed to make disproportionately high profits. AT&T doesn't and never did. Monopolies are supposed to neglect or suppress innovation. AT&T, to a conspicuous degree, has improved its technological competence decade by decade. Monopolies are supposed to be characterized by a callous disregard of their customers and their employees. AT&T, while it falls a long way short of perfection, is probably the most considerate large economic organization, socialist or capitalist, in the world."



# Consolidated Financial Statements

**The Financial Statements** on the following pages, which consolidate the accounts of American Telephone and Telegraph Company and its telephone subsidiaries, have been prepared in conformity with generally accepted accounting principles. Such principles are consistent in all material respects with the accounting prescribed by the Federal Communications Commission for telephone companies, except as to revenue refunds and investments, as discussed in Notes to Financial Statements.

The integrity and objectivity of data in these financial statements are the responsibility of management. To this end, management maintains a highly developed system of internal controls and supports an extensive program of internal audits. More fundamentally, the Company seeks to assure the objectivity and integrity of its accounts by careful selection of its managers, by organizational arrangements that provide an appropriate division of responsibility,

and by communications programs aimed at assuring that its policies and standards are understood throughout the organization.

These financial statements have been examined by Coopers & Lybrand, Certified Public Accountants, and their report is shown below. The other auditors referred to in their report are Arthur Young & Company as auditors of Western Electric Company and Southwestern Bell Telephone Company, and Arthur Andersen & Co. as auditors of Illinois Bell Telephone Company. The auditors' report expresses an informed judgment as to whether management's financial statements, considered in their entirety, present fairly in conformity with generally accepted accounting principles the Company's financial condition and operating results. It is based on procedures described in the first paragraph of the report, which include obtaining an understanding of the Company's systems and procedures and performing tests and other

procedures sufficient to provide reasonable assurance that the financial statements neither are materially misleading nor contain material errors. While the auditors make extensive tests of Company procedures, it is neither practicable nor necessary for them to scrutinize a large portion of the Company's transactions.

The Board of Directors pursues its responsibility for these financial statements through its Audit Committee, which meets periodically with both management and the independent auditors to assure that each is carrying out its responsibilities. The independent auditors have full and free access to the Audit Committee, and meet with it, with and without management being present, to discuss auditing and financial reporting matters.

R. N. Flint,

*Vice President and Comptroller*

## **Report of Independent Certified Public Accountants**

*To the Share Owners of American  
Telephone and Telegraph Company:*

We have examined the consolidated balance sheet of American Telephone and Telegraph Company and its subsidiaries as of December 31, 1975 and the related consolidated statements of income and reinvested earnings and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We previously examined and reported upon the consolidated financial statements of the Company and its subsidiaries for the year 1974. The financial statements of two telephone sub-

sidaries included in the consolidated financial statements (constituting total assets of \$11,612,936,000 and \$10,763,455,000 and total operating revenues of \$4,531,176,000 and \$4,120,782,000 included in the consolidated totals for 1975 and 1974, respectively) were examined by other auditors. The consolidated financial statements of Western Electric Company, Incorporated, the Company's principal unconsolidated subsidiary (the investment in and net income of which are disclosed in the accompanying financial statements) were also examined by other auditors. The reports of other auditors have been furnished to us and our opinion expressed herein, insofar as it relates to the amounts included in the consolidated financial statements for subsidiaries examined by them, is based solely upon such reports.

As described in note (E) to Financial Statements, net income for 1975 includes

amounts resulting from intrastate rate increases in several states which are subject to investigation and possible refund.

In our opinion, based upon our examination and the reports of other auditors and subject to the final outcome of the rate matters discussed in the preceding paragraph, the consolidated financial statements on pages 28 to 36 present fairly the consolidated financial position at December 31, 1975 and 1974, the consolidated results of operations and the consolidated changes in financial position for the years then ended of American Telephone and Telegraph Company and its subsidiaries, in conformity with generally accepted accounting principles applied on a consistent basis.

Coopers & Lybrand

1251 Avenue of the Americas,  
New York, N.Y.  
February 10, 1976



# Statements of Income and Reinvested Earnings

	Thousands of Dollars	
	Year 1975	Year 1974
<b>OPERATING REVENUES</b>		
Local service . . . . .	\$14,027,831	\$12,812,812
Toll service . . . . .	13,925,190	12,460,875
Directory advertising and other . . . . .	1,218,822	1,091,983
Less: Provision for uncollectibles . . . . .	214,602	191,258
<b>Total operating revenues . . . . .</b>	<b>28,957,241</b>	<b>26,174,412</b>
<b>OPERATING EXPENSES</b>		
Maintenance . . . . .	5,919,100	5,373,970
Depreciation . . . . .	4,088,089	3,690,390
Traffic—primarily costs of handling messages . . . . .	2,132,119	1,996,264
Commercial—primarily costs of local business office operations . . . . .	1,017,701	917,195
Marketing . . . . .	1,266,550	1,106,746
Accounting . . . . .	786,802	728,207
Provision for pensions and other employee benefits (B) . . . . .	2,363,730	1,852,654
Research and fundamental development . . . . .	206,279	189,883
Other operating expenses . . . . .	976,906	860,500
<b>Total operating expenses . . . . .</b>	<b>18,757,276</b>	<b>16,715,809</b>
<b>Net operating revenues . . . . .</b>	<b>10,199,965</b>	<b>9,458,603</b>
<b>OPERATING TAXES</b>		
Federal income (A):		
Current . . . . .	129,102	678,407
Deferred . . . . .	1,303,340	1,186,734
Investment tax credits—net . . . . .	741,646	258,263
State and local income:		
Current . . . . .	108,330	98,766
Deferred . . . . .	107,825	90,968
Property, gross receipts, payroll-related and other taxes . . . . .	2,680,819	2,453,537
<b>Total operating taxes . . . . .</b>	<b>5,071,062</b>	<b>4,766,675</b>
<b>Operating income (carried forward) . . . . .</b>	<b>\$ 5,128,903</b>	<b>\$ 4,691,928</b>

For notes, see pages 33 through 36.



	Thousands of Dollars	
	Year 1975	Year 1974
<b>Operating income</b> (brought forward) .....	<u>\$ 5,128,903</u>	<u>\$ 4,691,928</u>
<b>OTHER INCOME</b>		
Western Electric Company net income (C) .....	107,308	315,151
Interest charged construction .....	239,957	240,902
Miscellaneous income and deductions—net (D) .....	(32,220)	(16,948)
<b>Total other income</b> .....	<u>315,045</u>	<u>539,105</u>
<b>Income before interest deductions</b> .....	5,443,948	5,231,033
<b>INTEREST DEDUCTIONS</b> .....	<u>2,296,226</u>	<u>2,056,569</u>
<b>NET INCOME (C) (E)</b> .....	<u>3,147,722</u>	<u>3,174,464</u>
Preferred dividend requirements .....	231,943	231,889
<b>INCOME APPLICABLE TO COMMON SHARES</b> .....	<u>\$ 2,915,779</u>	<u>\$ 2,942,575</u>
 <b>EARNINGS PER COMMON SHARE</b> (after preferred dividend requirements) based on average shares outstanding, 567,915,000 in 1975 and 557,815,000 in 1974 (C) (E) .....	 <b>\$5.13</b>	 <b>\$5.28</b>
 <b>REINVESTED EARNINGS</b>		
At beginning of year .....	\$13,816,548	\$12,673,651
Add—Net income .....	<u>3,147,722</u>	<u>3,174,464</u>
	<u>16,964,270</u>	<u>15,848,115</u>
 Deduct—Dividends declared:		
Preferred .....	231,934	232,006
Common—1975, \$3.40 per share; 1974, \$3.24 per share .....	1,934,426	1,807,794
Miscellaneous—net (C) .....	10,633	(8,233)
	<u>2,176,993</u>	<u>2,031,567</u>
<b>REINVESTED EARNINGS AT END OF YEAR</b> .....	<u>\$14,787,277</u>	<u>\$13,816,548</u>



## Balance Sheets

ASSETS	Thousands of Dollars	
	December 31, 1975	December 31, 1974
TELEPHONE PLANT—at cost		
In service . . . . .	\$84,618,757	\$77,689,387
Under construction . . . . .	2,881,158	3,335,451
Held for future use . . . . .	120,865	121,225
	87,620,780	81,146,063
Less: Accumulated depreciation . . . . .	17,178,862	16,210,674
	<u>70,441,918</u>	<u>64,935,389</u>
INVESTMENTS		
At equity (F):		
Western Electric Company, Inc. (C) . . . . .	3,209,232	3,241,924
Other . . . . .	271,285	246,893
At cost . . . . .	74,636	87,946
	<u>3,555,153</u>	<u>3,576,763</u>
CURRENT ASSETS		
Cash and temporary cash investments—less drafts outstanding:		
1975, \$269,749,000; 1974, \$262,817,000 (G) . . . . .	1,123,543	1,121,621
Receivables—less allowance for uncollectibles: 1975, \$76,386,000;		
1974, \$34,944,000 . . . . .	3,537,664	3,131,733
Material and supplies . . . . .	450,440	449,828
Prepaid expenses . . . . .	214,102	155,285
	<u>5,325,749</u>	<u>4,858,467</u>
DEFERRED CHARGES . . . . .	<u>833,412</u>	<u>687,607</u>
<b>TOTAL ASSETS . . . . .</b>	<b><u>\$80,156,232</u></b>	<b><u>\$74,058,226</u></b>

For notes, see pages 33 through 36.



**Statements of Changes  
in Financial Position**

AMERICAN TELEPHONE AND TELEGRAPH COMPANY  
AND ITS SUBSIDIARIES

	Thousands of Dollars	
	Year 1975	Year 1974
<b>SOURCE OF FUNDS:</b>		
Operations		
Net income . . . . .	\$ 3,147,722	\$ 3,174,464
Add—Expenses not requiring funds:		
Depreciation . . . . .	4,088,089	3,690,390
Deferred income taxes . . . . .	1,403,841	1,263,239
Investment tax credits—net . . . . .	667,322	258,263
Deduct—Income not providing funds:		
Interest charged construction . . . . .	239,957	240,902
Share of equity-basis companies' income in excess of dividends . . . . .	—	99,031
Total funds from operations . . . . .	<u>9,067,017</u>	<u>8,046,423</u>
Financing		
Issuance of shares . . . . .	1,022,651	223,637
Issuance of long and intermediate term debt . . . . .	2,545,000	2,956,000
Total funds from financing . . . . .	<u>3,567,651</u>	<u>3,179,637</u>
Changes in minority ownership interest in consolidated subsidiaries . . . . .	35,960	12,756
Other—net . . . . .	92,624	(52,735)
	<u>\$12,763,252</u>	<u>\$11,186,081</u>
<b>APPLICATION OF FUNDS:</b>		
Telephone plant . . . . .	\$ 9,354,661	\$ 9,816,812
Dividends . . . . .	2,166,360	2,039,800
Increase in deferred charges . . . . .	145,805	72,933
Reduction of long and intermediate term debt . . . . .	110,000	180,000
Change in investments in companies accounted for on an equity basis . . . . .	(8,300)	146,145
Change in working capital . . . . .	994,726	(1,069,609)
	<u>\$12,763,252</u>	<u>\$11,186,081</u>
The change in working capital is accounted for by:		
Increase in current assets:		
Cash and temporary cash investments, net of drafts . . . . .	\$ 1,922	\$ 61,608
Receivables . . . . .	405,931	143,889
Material and supplies . . . . .	612	80,711
Prepaid expenses . . . . .	58,817	10,780
	<u>467,282</u>	<u>296,988</u>
Less—Increase (decrease) in current liabilities:		
Accounts payable . . . . .	22,774	157,648
Taxes accrued . . . . .	13,617	(121,603)
Advance billing and customers' deposits . . . . .	72,725	49,062
Dividends payable . . . . .	19,361	52,795
Interest accrued . . . . .	65,421	66,860
Debt maturing within one year (K) . . . . .	(721,342)	1,161,835
	<u>(527,444)</u>	<u>1,366,597</u>
Change in working capital, as above . . . . .	<u>\$ 994,726</u>	<u>\$ (1,069,609)</u>

For notes, see pages 33 through 36.



## Notes to Financial Statements

(A) **Accounting Policies**—The financial statements reflect the application of certain accounting policies described in this note. Other policies and practices are covered in notes (B) and (G).

**Consolidation**—The consolidated financial statements include the accounts of the American Telephone and Telegraph Company (the "Company") and its telephone subsidiaries. All significant intercompany transactions are excluded except as discussed below under "Purchases from Western Electric." The investment in Western

Electric Company, Incorporated ("Western Electric"), an unconsolidated subsidiary, and certain other investments (where it is deemed that the Company's ownership gives it the ability to exercise significant influence over operating and financial policies) are carried at equity—see note (F). All other investments are carried at cost.

**Purchases from Western Electric**—Most of the telephone equipment, apparatus and materials used by the consolidated companies have been manufactured or procured for them by Western Electric. Contracts with the telephone companies provide that Western Electric's prices to them shall be as low as to its most favored customers for like materials and services under comparable conditions. The consolidated financial statements reflect items purchased from Western Electric at cost to the companies, which cost includes the return realized by Western Electric on its investment devoted to this business.

**Interest Charged Construction**—Regulatory authorities allow the Company and its telephone subsidiaries to provide for a return on capital invested in new telephone plant under construction by including interest charged construction as an item of income during the construction period and also as an addition to the cost of the plant constructed. Such income is not realized in cash currently but, under the regulatory process, will be realized over the service life of the plant as the resulting higher depreciation expense is recovered in the form of increased revenues.

**Depreciation**—Provision in the accounts for depreciation (5.2% in 1975 and 1974 of the cost of depreciable plant in service) is based on straight-line composite rates. Depreciation for income tax purposes is provided on different bases and methods as explained under "Income Taxes" below.

**Income Taxes:**

(1) Under various accelerated depreciation provisions of the tax law, deprecia-

tion for income tax purposes on plant placed in service after 1969 is greater than the straight-line depreciation provided in the accounts. In addition, the companies have adopted for income tax purposes shorter depreciation lives than those used for book purposes for certain plant, as allowed in income tax regulations of the Treasury Department. Provision is included in income tax expense for the deferred income taxes resulting from the use of accelerated depreciation and shorter tax lives.

(2) The decrease in Current Operating Federal income taxes in 1975 results principally from a substantial increase in investment tax credits provided by the Tax Reduction Act of 1975.

(3) The effective consolidated Federal income tax rates were 40.3% in 1975 and 39.6% in 1974. These rates are determined from the Statements of Income by dividing Federal income taxes by the sum of Federal income taxes, Net Income and minority ownership interest in net income—see note (D). The differences of 7.7% and 8.4% in 1975 and 1974, respectively, between these effective rates and the 48% Federal income tax statutory rate are attributable to the following factors:

	1975	1974
a. Earnings applicable to investments in companies accounted for on an equity basis which are reflected net of income tax . .	1.0%	2.9%
b. Certain taxes and payroll-related construction costs capitalized for financial statement purposes, but deducted for income tax purposes, net of related depreciation adjustments for current and prior years	3.1%	2.7%
c. Interest charged construction which is excluded from taxable income, net of related depreciation adjustments for current and prior years . . .	1.6%	1.7%



d. Profits on telephone plant items purchased from Western Electric, which are capitalized for financial statement purposes but not for tax purposes, and which reduce depreciation expense for tax purposes . . .	(.7%)	(.7%)
e. Amortization of investment tax credits over the life of the plant which gave rise to the credits. Such amortization reduced income tax expense for the years 1975 and 1974 by about \$112,543,000 and \$83,389,000, respectively . . . . .	2.1%	1.6%
f. Other miscellaneous differences between the calculations of taxable income and book income before taxes . . . . .	.6%	.2%
Total . . . . .	<u>7.7%</u>	<u>8.4%</u>

*Research and Development*—In addition to basic research and fundamental development costs, which are expensed currently, the cost of specific development and design work incurred by Western Electric is related to products manufactured and is included in the cost of such products (see “Purchases from Western Electric” above).

(B) **Provision for Pensions and Death Benefits**—The Company and its consolidated subsidiaries have noncontributory plans covering all employees and providing for service pensions and certain death benefits. These companies have accrual programs under which actuarially determined regular payments are made to trust funds that are irrevocably devoted to service pension and death benefit purposes. The total provision for these service pen-

sions and death benefits, including amounts charged to construction, was \$1,613,132,000 in 1975 and \$1,216,055,000 in 1974. Amendments to the plans, adopted pursuant to 1974 union contracts, provide for improved benefits for all employees and have increased pension accruals in 1975 by about \$247,000,000. Based on the latest actuarial valuation, adjusted to reflect those benefits which became effective January 1, 1976, (including changes made in compliance with the Employee Retirement Income Security Act of 1974), the companies estimate that the actuarially computed value of vested benefits exceeded the cost of trust fund assets by about \$590,000,000. The accrual programs contemplate that there will be available in the funds amounts sufficient to provide benefits as stated in the plans.

(C) **Western Electric Company Net Income**—Western Electric's net income for 1974 has been restated and reinvested earnings and the Company's investment have been adjusted to reflect elimination of prior years' provisions for certain contingencies. This restatement increased 1974 consolidated Net Income by \$4,518,000 and Reinvested Earnings and the Company's investment by \$10,938,000.

(D) **Miscellaneous Income and Deductions**—Reflects deductions of minority ownership interest in the net income of certain consolidated subsidiaries in the amounts of \$77,027,000 in 1975 and \$70,481,000 in 1974.

(E) **Earnings Subject to Refund**—Results for 1975 include approximately \$84,500,000 of Net Income (\$.15 per common share) resulting from intrastate rate increases authorized by the California Public Utilities Commission for The Pacific Telephone and

Telegraph Company. Upon petition, the California Supreme Court reviewed that decision and on December 12, 1975, referred it back to the Commission for further consideration of the treatment of tax expenses. Records are being maintained so that refunds may be made if ordered. Additionally, the results for 1975 include approximately \$66,360,000 of Net Income (\$.12 per common share) resulting from other intrastate rate increases in several states which are subject to investigation and possible refund.

(F) **Investments at Equity**—The Uniform System of Accounts of the Federal Communications Commission requires that investments be carried on the books of the companies at cost. In accordance with generally accepted accounting principles, certain investments are included at equity (cost plus proportionate share of reinvested earnings) in the accompanying balance sheets. See note (A), “Consolidation.”

The following information is provided as of December 31, 1975, for those companies carried at equity:

**Western Electric Company, Inc. and its subsidiaries**—Wholly owned and carried on the Company's books at a cost of \$1,451,010,000. The consolidated assets and liabilities at December 31, 1975, were \$4,999,944,000 and \$1,790,712,000, respectively.

**Other**—Includes:

*Bell Telephone Laboratories, Inc.*—50% owned and carried on the Company's books at a cost of \$129,000,000 which also is its investment at equity. Western Electric owns the other 50%. *The Southern New England Telephone Company*—16.8% owned and carried on the Company's books at a cost of \$50,013,000 plus \$10,200,000 of advances. The Company's equity is \$86,799,000. Closing value on the



New York Stock Exchange of the shares owned by the Company at December 31, 1975, was \$58,944,000. *Cincinnati Bell Inc.*—25.7% owned and carried on the Company's books at a cost of \$24,345,000 plus \$500,000 of advances. The Company's equity is \$47,243,000. Closing value on the New York Stock Exchange of the shares owned by the Company at December 31, 1975, was \$34,504,000. *Miscellaneous*—Carried on the Company's books at a cost of \$3,370,000 plus \$2,306,000 of advances. The Company's equity is \$8,243,000.

**(G) Cash and Temporary Cash Investments**—Cash and temporary cash investments have been reduced by the amount of drafts outstanding with a corresponding reduction in accounts payable. It is the practice of the Company and some telephone subsidiaries to make certain payments by draft and to record such drafts as accounts payable until such time as the banks honoring the drafts have presented them for payment. The Company maintains cash and temporary cash investments not only to meet its own obligations but to maintain funds upon which the subsidiary companies may draw on a day-to-day basis to meet their obligations, including coverage for outstanding drafts.

**(H) Preferred Shares**—At December 31, 1975, 100,000,000 preferred shares at \$1 par were authorized. Outstanding, at a \$1,000 stated value, were 625,000 shares of \$77.50 cumulative preferred, and at a \$50 stated value, 27,416,000 shares of \$4 cumulative convertible preferred and 10,000,000 shares each of \$3.64 and \$3.74 cumulative preferred. Proceeds in excess of stated value amounted to \$5,799,000 and \$5,805,000 at December 31, 1975 and 1974, respectively.

The \$77.50 preferred shares may be redeemed by the Company at a premium of \$68.60 per \$1,000 share on or before January 31, 1977, and at diminishing amounts thereafter. These shares are subject to redemption without premium through an annual sinking fund commencing February 1, 1978.

The \$4 preferred shares may be redeemed by the Company at a premium of \$.50 per \$50 share through July 31, 1976, and thereafter at stated value. Each share is convertible into approximately 1.05 common shares of the Company. During 1975, a total of 26,622 shares were converted. See note (I).

The \$3.64 preferred shares may be redeemed by the Company at a premium of \$3.43 per \$50 share on or before April 30, 1976, and at diminishing amounts thereafter. These shares are subject to redemption without premium through an annual sinking fund commencing May 1, 1984.

The \$3.74 preferred shares may be redeemed by the Company at a premium of \$3.53 per \$50 share on or before January 31, 1977, and at diminishing amounts thereafter. These shares are subject to redemption without premium through an annual sinking fund commencing February 1, 1985.

**(I) Common Shares**—At December 31, 1975, 750,000,000 common shares at \$16<sup>2</sup>/<sub>3</sub> par value were authorized. Out-

standing were 582,024,000 shares and 559,757,000 shares as of December 31, 1975 and 1974, respectively. Proceeds in excess of par value of common shares amounted to \$6,278,884,000 and \$5,625,993,000 at December 31, 1975 and 1974, respectively. Book value per common share amounted to \$52.86 and \$51.40 at December 31, 1975 and 1974, respectively.

At December 31, 1975, there were 28,858,606 authorized and unissued shares reserved for the conversion of the Company's outstanding \$4 convertible preferred shares.

The Company issued common shares in 1975 as follows:

28,024 upon conversion of 26,622 shares of the Company's \$4 convertible preferred shares. See note (H).  
7,062,660 at market (at 95% of market for dividend reinvestments beginning April 1, 1975) under the Share Owner Dividend Reinvestment and Stock Purchase Plan.

3,177,265 at a price of \$52 per share upon exercise of the Company's warrants, which expired May 15, 1975.

12,000,000 at \$46 per share in an issue sold in October 1975.

**(J) Long and Intermediate Term Debt**—Interest rates and maturities on long and intermediate term debt outstanding at December 31, 1975, in millions of dollars, were as follows:

Maturities	2½% to 5½%	6% to 7½%	8% to 10%	Total
1977.....	\$ 20	\$ 300	\$ —	\$ 320
1978.....	220	350	—	570
1979.....	60	725	—	785
1980.....	265	150	—	415
1981-1990.....	3,168	413	795	4,376
1991-2000.....	3,989	722	1,719	6,430
2001-2010.....	2,077	4,745	5,580	12,402
2011-2015.....	—	3,150	3,345	6,495
	<u>\$ 9,799</u>	<u>\$10,555</u>	<u>\$11,439</u>	<u>\$31,793</u>



In addition, as of February 10, 1976, three subsidiaries have announced their intention to sell up to \$850,000,000 of long and intermediate term debt. The proceeds of such sales will be applied toward repayment of debt, including bank loans and commercial paper, and for general corporate purposes, including extensions, additions and improvements to plant.

**(K) Debt Maturing Within One Year—**

It has been the practice of the Company's telephone subsidiaries to finance the construction of telephone plant partially through interim debt (bank loans and commercial paper payable within 12 months or less after issuance), pending long term financing. See note (J) above. In the Company's computation of ratios of debt to total capitalization (usually referred to as "debt ratios") for regulatory and other purposes, interim debt and long and intermediate term debt maturing within one year are included with Long and Intermediate Term Debt.

Outstanding, at December 31, in millions of dollars (including amounts subsequently refinanced):

	1975	1974
Bank loans . . . . .	\$1,177	\$1,269
Commercial paper . . . . .	942	1,501
Long and intermediate term debt maturing within one year . . . . .	110	180
Total . . . . .	<u>\$2,229</u>	<u>\$2,950</u>

The weighted average annual interest rates for bank loans and commercial paper outstanding at December 31, 1975, were 6.9% and 5.5%, respectively. The maximum amount of interim debt at any month-end during the year 1975 was \$2,722,983,000 and the average amount outstanding during the year was approximately \$2,644,425,000 at

an average interest rate of 7.0%, computed by averaging the face amount of the interim debt payable each day of the year and dividing such average into the aggregate related interest expense. Long and intermediate term debt maturing within one year outstanding at December 31, 1975, carried a weighted average interest rate of 2.7%.

**(L) Lease Commitments—**Total rental expense for the years 1975 and 1974 was about \$672,326,000 and \$582,159,000, respectively. At December 31, 1975, the aggregate minimum rental commitments under noncancelable leases for the periods shown were as follows:

Years	Thousands of Dollars
1976 . . . . .	\$342,620
1977 . . . . .	336,789
1978 . . . . .	306,976
1979 . . . . .	279,803
1980 . . . . .	239,082
1981-1985 . . . . .	803,375
1986-1990 . . . . .	406,748
1991-1995 . . . . .	272,388
Thereafter . . . . .	959,064

**(M) Department of Justice Antitrust Action—**

In November 1974 the Department of Justice brought a civil antitrust action naming the Company, Western Electric and Bell Telephone Laboratories as defendants, and the 23 Bell System telephone companies as co-conspirators but not defendants. This matter might not be resolved for several years. The Company believes that the relief sought, which includes dismemberment of the Bell System, is adverse to the public interest and is confident that it has not been in violation of the antitrust laws and that the structure of the Bell System will remain basically unchanged. In the opinion of the Company, dismemberment of the Bell System would have adverse effects on its business, could affect its ability to raise capital, its credit standing and the market value

of its securities, and could require an immediate payment of Federal income taxes previously deferred on intercompany profits. A lump sum payment of such deferred taxes, which are being credited to the plant accounts, would have no effect on net income but would materially increase the Company's cash requirements.



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5. Member of the Employee Benefit Plan Committee

6. Member of the Committee on Directors

7. Member of the Proxy Committee





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