1970 ANNUAL REPORT AMERICAN TELEPHONE AND TELEGRAPH COMPANY

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Results in Brief	1970	1969
Earnings Per Share	$ 3.99	$ 4.00
Income	Millions	
Local Services	$ 8,456	$ 7,774
Toll Services	7,874	7,298
Other	995	938
	$17,325	$16,010
Expenses		
Operating	$10,868	$ 9,612
Taxes	3,265	3,497
Interest	1,003	702
	$15,136	$13,811
Net Income	$ 2,189	$ 2,199
Dividends Declared	$ 1,428	$ 1,346
Earnings Reinvested in the Business	$ 761	$ 853

The Annual Meeting of share owners will be held at 2 p.m. on Thursday, April 22, 1971 at the Memorial Auditorium and Convention Center, Dallas, Texas.

The financial results reported herein are for the American Telephone and Telegraph Company and its principal telephone subsidiaries, consolidated. Financial statements of AT&T alone and annual reports of all the Bell telephone companies and of Western Electric, manufacturing and supply unit of the Bell System, are available on request. Share owners who are blind may obtain the AT&T report in braille or on talking records. Also available is an Annual Statistical Report, intended for those desiring further data on our operations.

Kindly address requests to the Secretary, American Telephone and Telegraph Company, 195 Broadway, New York, N. Y. 10007

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

Dear Share Owner:

In 1970 the Bell System experienced slower revenue growth, higher expenses and—consequently—lower earnings than had been anticipated at the year's outset. Earnings per share were $3.99, compared to $4.00 in 1969.

But 1970 was a year of solid progress in other ways. To wipe out service weak spots and ready ourselves to meet future demand, we carried out the largest construction program in our history. In the course of the year we added 33 million circuit miles to our interstate transmission facilities and added sufficient new calling capacity in our local exchanges to serve a city four times the size of Philadelphia. Our service capability is stronger as a consequence.

At the same time, the Bell companies continued to press for rate increases to help offset the higher costs they are experiencing and achieve the rate of return on capital that is necessary to assure continued investment in our business. These increases, combined with unremitting emphasis on expense control and productivity improvement, provide a firm basis for earnings improvement.

Revenues and Expenses

Bell System revenues totaled $17.0 billion in 1970, compared with $15.7 billion in 1969—an 8.1 per cent increase. While this increase represents good growth—remarkable in light of the economic conditions prevailing in 1970—it nonetheless falls well short of the strong 11.2 per cent increase we achieved in 1969.

The Bell System, of course, was not alone among American businesses in feeling the impact of the economic slowdown. But, unlike most other businesses, we cannot trim our commitments to meet the exigencies of every passing economic storm. Only by matching our efforts to long-term prospects can we assure that the public's needs will be met on time.

Nineteen-seventy, therefore, found us committed to a construction program calling for expenditures in excess of $7.0 billion. This program was addressed, first and foremost, to fulfilling our pledge to restore Bell System service—wherever it has faltered—to the standards of quality and reliability the public has every right to expect. And it was addressed, too, to providing sufficient margin in our plant to assure that we would be ready to meet the resurgence in demand for communications services we expect to experience once the economy resumes its historic trend.

Ours is not a start-and-stop technology. The construction programs of the Bell companies consist of thousands of individual projects, many of them closely interrelated and therefore demanding precise coordination of their completion schedules. The larger and more complex of these projects require a considerable time span from the outset of design to final test. For example, it takes 18 months, on the average, to engineer, manufacture and install a major new switching facility, three years or longer to construct a major cross-country microwave radio or coaxial cable facility. It simply is not feasible—indeed it would be wasteful—to pace the execution of projects of this dimension to the ups and downs of the economy. To attempt to do so would be to risk defaulting on our responsibilities to the future.

Thus it was that 1970's record-breaking construction program was carried out in the face of a slowdown in revenue growth that continues at this writing—*and* in the face of the sharpest increase in operating expenses we have experienced in many years. It is not surprising, then, that the rate of return on the capital invested in our business declined from 7.73 per cent in 1969 to 7.62 per cent.

Clearly a rate of return at this level is far from adequate for a business that must each year raise very large amounts of new capital to finance its construction undertakings. And clearly a rate of return at this level is obsolete in a period when the cost of new Bell System debt averaged—as it did in 1970—8.70 per cent.

Overseas Operator
Pittsburgh, Pa.

Financing

In 1970, depreciation and retained earnings contributed less than half the capital the Bell companies needed to support their construction programs. The remainder we obtained, as we have for some years, through the sale of debt issues, both long and short term. A unique feature of the Bell System's 1970 financing program of $4.73 billion (including refinancing) was the offering to share owners of some $1.57 billion of long-term debentures with warrants to purchase stock.

The interest cost of Bell System debt issues sold last year ranged from a low of 7.67 per cent to a high of 9.43 per cent. At the end of the year, debt represented some 44.9 per cent of total Bell System capital. Ten years ago our debt ratio was 36.4 per cent. By the end of 1971—in the absence of a new equity issue—it will be about 48 per cent.

Clearly we are approaching the point at which we should be looking to the equity market for our financing needs. But the hope of doing so successfully depends on our achieving a level of earnings that would warrant a market price for our shares considerably above the levels obtaining in 1970.

Telephone Rates

What, then, are we doing to achieve this improvement in our level of earnings?

First of all, we have undertaken a rigorous examination of all our expenditures, current and contemplated, to be sure we spend not one dollar more than we need to spend to assure good service. Even so, with continuing inflation, 1971's construction program will in all probability exceed 1970's. Nor do the years beyond offer any prospect of an abatement of our very large capital requirements.

Second, we are accelerating our efforts to improve results through cost-saving technology and improvements in operating methods. It has been a point of pride with us that through most of our recent history we have been able to offset cost increases and improve earnings through our own efforts to improve efficiency. These efforts will be continued unstintingly.

But it is now apparent that these efforts by themselves are insufficient in this inflationary period to achieve the rate of return we need to assure fair treatment of share owners and our ability to raise the new capital that construction programs of the '70s will require.

Accordingly in 1970 we applied to regulatory authorities for authorization to increase rates in 20 states. Some of these applications were still pending at the end of the year, but it is heartening to note that during the year rate increases aggregating some $483 million on an annual basis were permitted to go into effect. Offsetting these increases was a $150 million *reduction* in interstate rates that took effect on January 1, 1970—a reduction that in the light of today's circumstances should not have been made.

In November, therefore, the company filed with the Federal Communications Commission a schedule of rate adjustments that would increase total interstate revenues by about six per cent or $385 million in additional Bell System revenues. This increase is just enough to 1) recoup the $150 million rate reduction made last year; 2) offset a shift of $130 million in revenue requirements from intrastate to interstate services that became effective at the beginning of this year; and 3) increase the return from our interstate operations to the 9.5 per cent range which we believe justified in order to provide an adequate return to our investors and to meet future financial requirements.

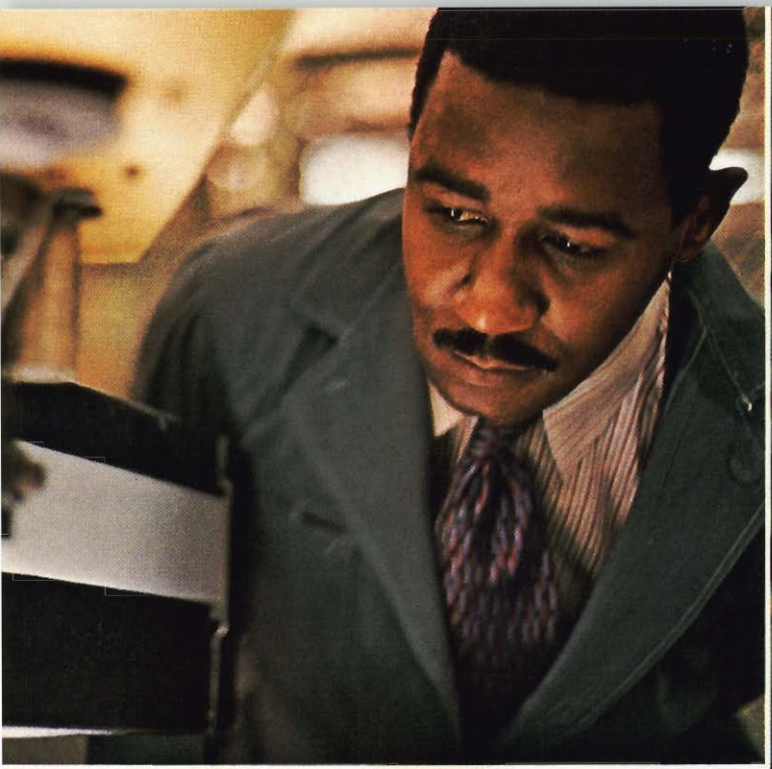
In January of this year, the Commission requested that the effective date of the rate adjustments be postponed, pending the outcome of expedited hearings on the matter. We were granted permission, however, to make interim rate adjustments (subject to refund) that will produce some $250 million in additional net earnings before taxes. Since this figure includes anticipated cost savings from changes in customer calling patterns, the actual increase in interstate revenues will be about $175 million.

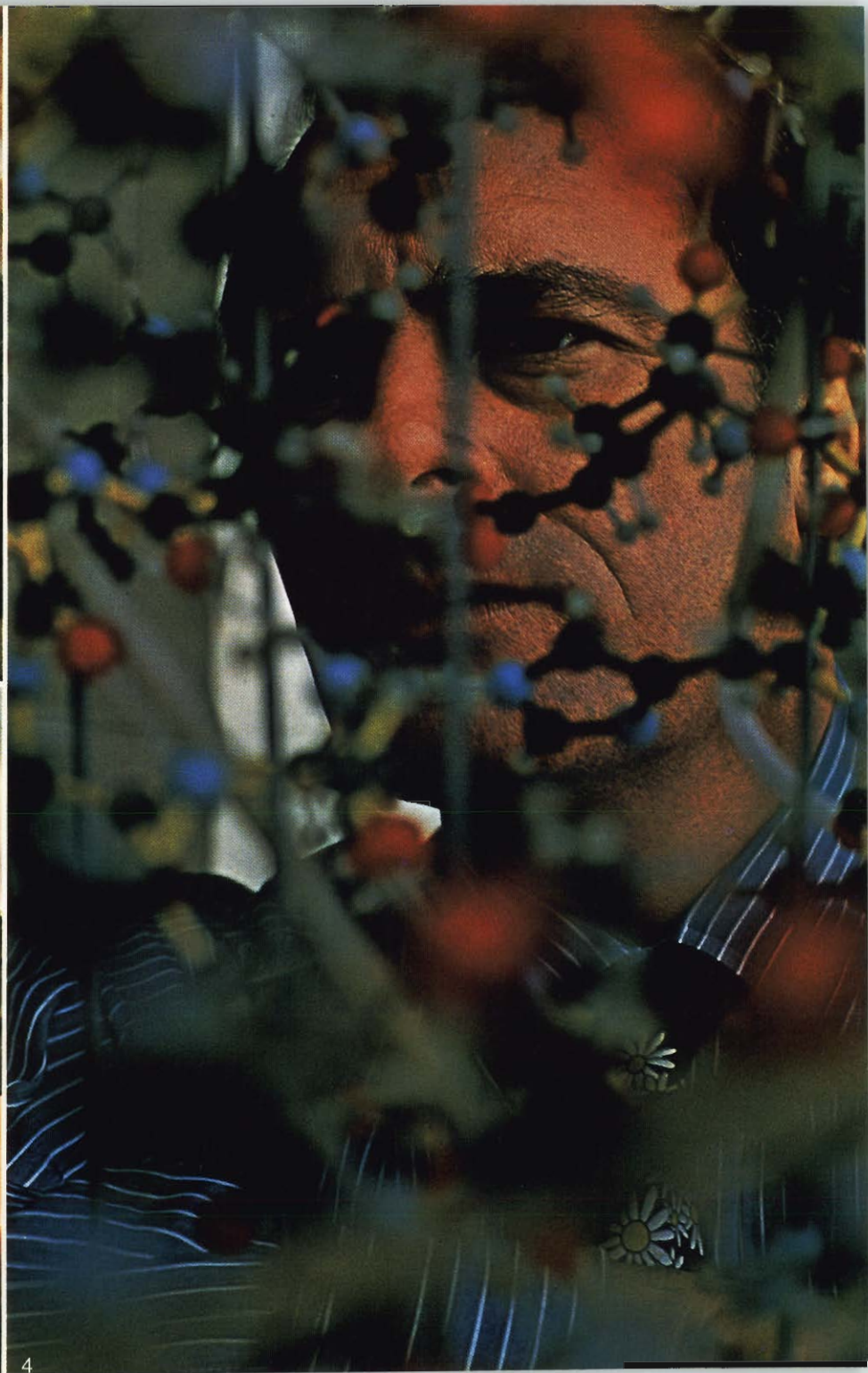
The Commission's recognition of the need for higher interstate earnings is encouraging. But the interim increase is far short of what is required under present economic conditions, and we shall continue to press for the full amount initially proposed.

2. Toolmaking Supervisc
Indianapolis, In

3. Service Representativ
Jacksonville Beach, Fl

4. Biophysicis
Murray Hill, N.





Nobody likes price increases—and our decision to seek them was not lightly undertaken. But we cannot continue to absorb the sharply increased costs we are now experiencing except at the risk of jeopardizing the fulfillment of our basic obligation to the public. We have, then, no alternative but to seek rate increases in every jurisdiction where our rate of return falls significantly below the level that is required to maintain our ability to finance our construction programs.

Obviously the impact of our actions on the national economy and the fight against inflation was a major factor in our deliberations. But that the current increases in telephone rates are clearly a consequence of inflation, not a cause, is apparent from the following facts:

1) After taking full account of the rate increases granted in the course of the year, the general level of Bell telephone rates in this country was still about two per cent lower than in 1960. By contrast, the consumer price index has increased 31 per cent in the same interval and per capita disposable income 72 per cent.

2) Almost without exception, the rate increases granted in 1970 in the various states were the first such general increases in a decade or more. For example, the increase granted in New York State was the first since 1957; in Illinois the first since 1953; in Michigan, the first since 1960. And the increases we are currently seeking in Pennsylvania will be the first since 1956, in New Jersey the first since 1958. In light of what has happened to the prices of most other things during this period, it is apparent that telephone service will continue to be one of the biggest bargains around.

3) There has been no general increase in interstate message rates since 1953; indeed such rates have been steadily *reduced* since that time--and even with the full amount of the rate adjustments we have requested, they would still be 14 per cent *below* the level of 1953.

Finally on this point, our move to reprice our services at levels that are realistic under today's conditions is based on the conviction that this is a responsibility we owe not only our share owners but our customers as well. We earnestly believe that this repricing, once it has been accomplished, will contribute significantly to our ability to serve the nation's growing communications needs and serve them well. Increasingly, I am pleased to note, regulatory authorities appear to share this belief.

Communications Growth

Last year the Bell System handled 21 million more messages per business day than in 1969. Long distance messages increased by 645 million--or 9.8 per cent over 1969—and the Bell companies gained some 3,870,000 telephones, compared to 4,684,000 in '69.

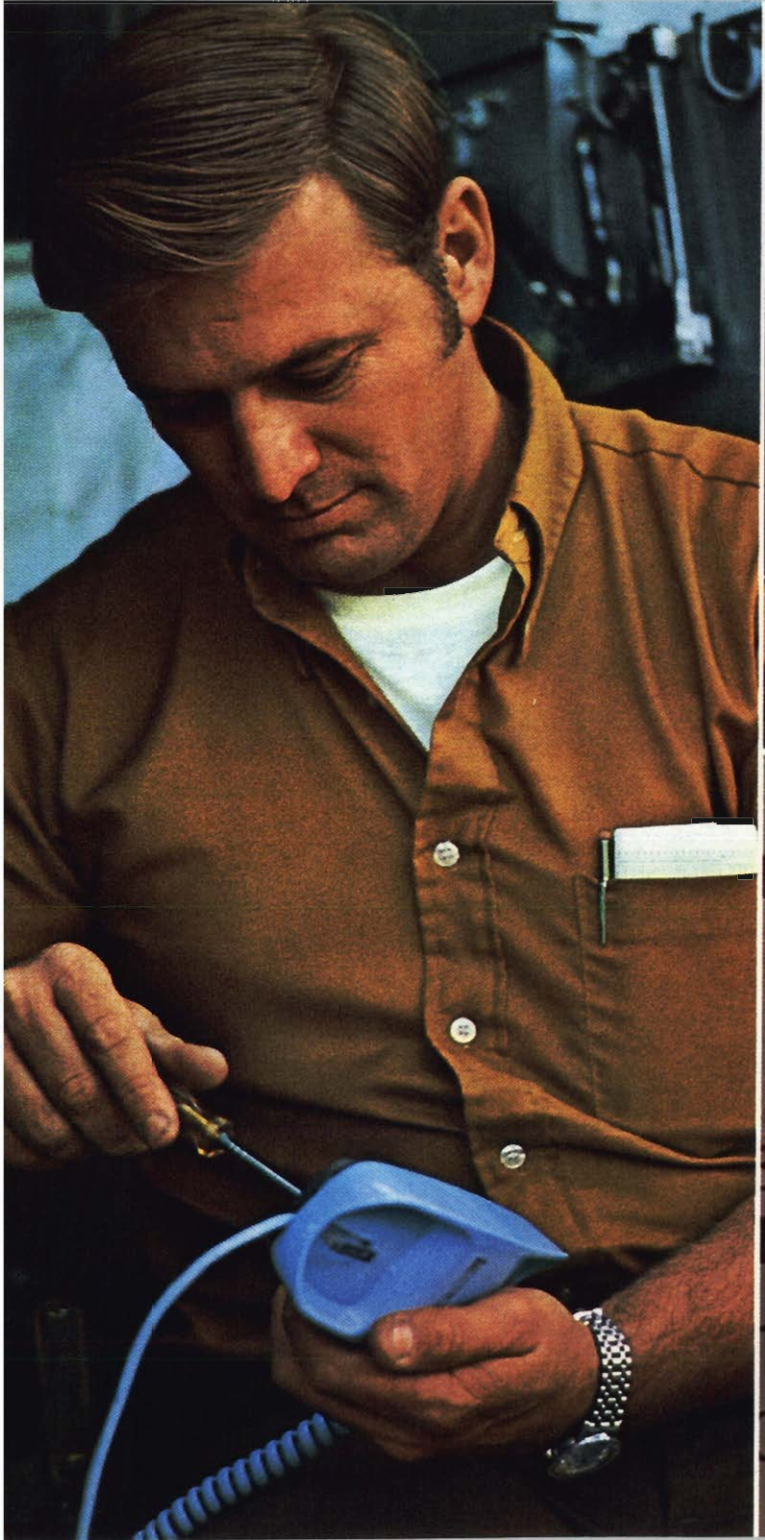
The continued strong growth in long distance calling in the face of unsettled economic conditions reflects steadily increasing calling convenience and the effects of interstate rate reductions achieved in large part through cumulative advances in communications technology. To illustrate, the book cost per circuit mile of the Long Lines Department's transmission plant has decreased from about $60.00 in 1950 to about $20.00 today—and currently Long Lines is installing new interstate plant at an average cost of about $12.00 per circuit mile. Rate reductions introduced over this same period have brought the rate for a three-minute cross-country call down from as low as $2.00 in 1960 to as low as $0.70 today.

In 1970, more than 25 per cent of all interstate calls were calls that customers dialed themselves during the evening, at night or on weekends when lower rates prevail. The new interstate rate schedules we have filed with the FCC will further enhance the operating economies of customer dialing and extend the principle of off-peak pricing, originally introduced by the Bell System in 1900 with the first night rates.

The economy and convenience of calling abroad are contributing significantly to continuing growth in our overseas business. Last year conversations increased 30 per cent over 1969 to 26,900,000. This was 13 times the number in 1956, when our first transatlantic cable was installed.

An important development last year was the opening of a fifth transatlantic cable between the U.S. and Spain, Portugal and Italy. The 845-circuit cable also serves 19 other countries in the European and Mediterranean areas. Calling between the U.S. and these

5. Installer
New Orleans, La.
6. Metals Molder
Chicago, Ill.
7. Lineman
Eureka, Calif.
8. Chief Overseas Operator
New York, N.Y.



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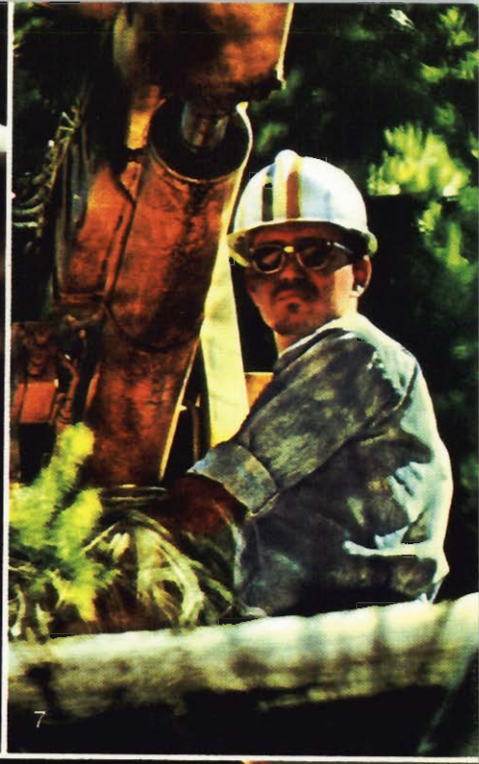

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countries increased by nearly 45 per cent over 1969. The introduction of satellite service to eight more countries also expanded overseas calling capacity and led to increased usage.

Over the years advances in cable and satellite technology have improved service while reducing costs. For example, the cost per circuit mile of our first transatlantic cable was $305. The cost of the fifth cable was $30 per circuit mile.

Today a three-minute New York to London call can be made for as low as $4.05 as compared with a cost of $12.00 in 1956.

On the domestic scene, we pushed ahead vigorously with efforts to increase the capacity, reliability and usefulness of our nationwide switched network. Today that network includes some 350 million miles of circuits. In the next 10 years, we plan a fourfold increase.

In 1970 more than 1,000 miles of coaxial cable were installed underground as part of two major cable routes: one that will extend from Massachusetts to California, the other from New York to Missouri.

Both are L-4 cable systems, the main routes of which will have capacities of 32,400 voice circuits. With the introduction of the L-5 cable system, on which field tests began in 1970, this capacity can be increased to 90,000 voice circuits. The first commercial application of this system is tentatively scheduled for late 1973 between the St. Louis and Pittsburgh areas.

This considerable expansion in network capacity is essential to meet the growth in communications usage that the '70s hold in store—including anticipated growth in data communications.

Currently, data communications accounts for about $500 million of our revenues. We anticipate that it will be growing at an annual rate of 30 per cent by the middle of the decade. By that time we expect that digital transmission facilities already in operation will have evolved into a digital system serving most major U.S. cities. In addition to carrying voice and video messages, the digital network will help us serve the expanding data market efficiently and economically.

A new era in telecommunications began in July of last year with the first offering of Picturephone® service on a commercial exchange basis. Introduced in Pittsburgh, the service will be expanded to two dozen other cities by 1975, when we expect to have some 50,000 sets in service.

The Western Electric Company's response to our sharply increased needs has been impressive by any measure. The growth rate of our manufacturing and supply unit averaged about 8 per cent a year from 1960 through 1968. But in each of the past two years, as the telephone companies' material and equipment requirements climbed upward and upward, that rate of growth almost tripled. Even more remarkable: in the short span of 18 months between the spring of 1969 and the fall of 1970, Western Electric increased its overall production by more than 50 per cent.

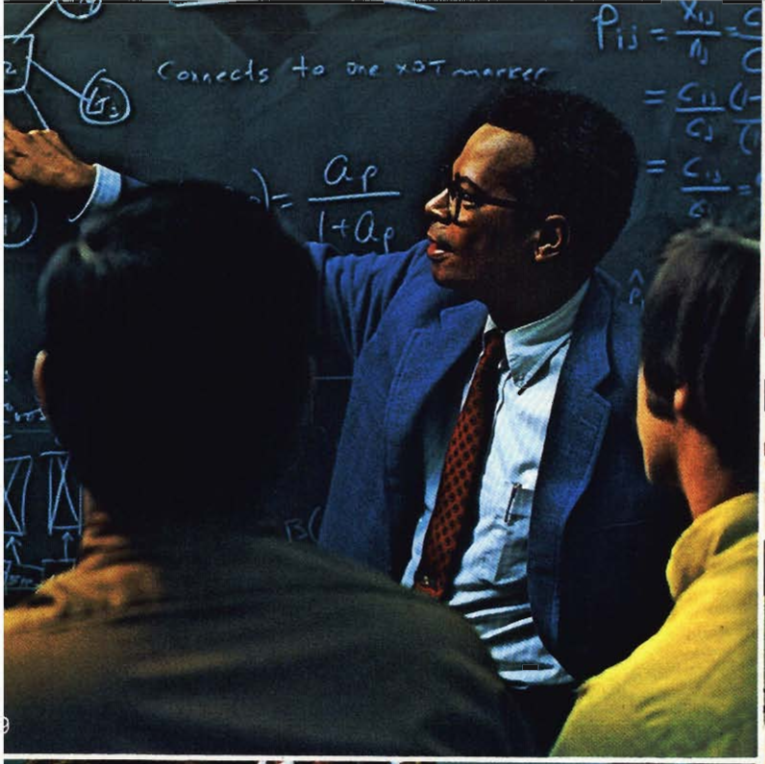
Western Electric's total sales last year came to a record $5.9 billion, compared to $4.9 billion in 1969. The company added some 12,000 employees during the year and increased its purchases from outside suppliers by about $700 million. Its expansion of productive capacity is continuing. New Western Electric plants in Denver, Atlanta, and Dallas will be completed this year, and plans have been announced for three more: in San Ramon, Calif.; Vancouver, Wash.; and Naperville, Ill.

Service Improvement

A year ago, I reported to share owners that for the first time in a great many years the Bell System experienced severe public criticism of its service in some places. I assured share owners then that we were sparing no efforts—and in 1970 we spared no efforts—to make matters right.

These efforts have produced results. Service difficulties that derive from insufficient capacity have been for the most part eliminated or will be soon. But some of our service problems have proved more stubborn than it appeared they would be when they first emerged, particularly in some—by no means all—of our largest cities. Partly these difficulties reflect the relative inexperience of a work force, almost 30 per cent of which has less than two years' experience. This percentage is even higher in certain metropolitan areas. Partly they reflect a need to step up maintenance of some of the older plant facilities serving parts of some of our big

9. **Systems** Engineer
Holmdel, N.J
10. **Cable Tester**
Baltimore, Md
11. **School Consultant**
St. Louis, Mo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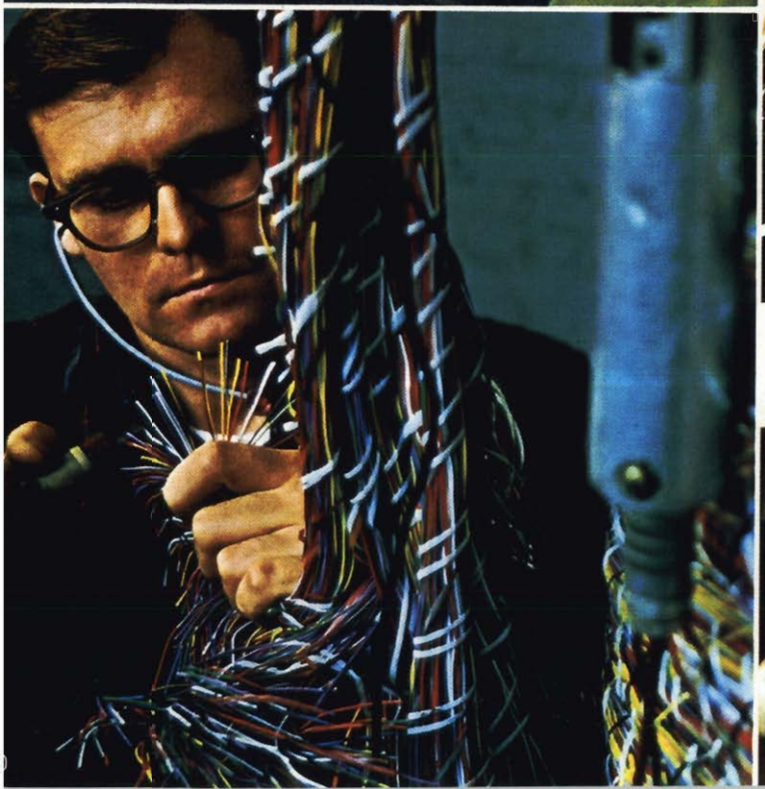



Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll
TELEPHONE COURTESY
DON'T ROAR
DON'T DAWDLE
DON'T HOG
DON'T MUNCH
DON'T MONKEY

cities. And partly they reflect the need to introduce new operating methods that match the complex communications demands we confront today.

We are moving ahead vigorously on all three fronts. Training programs are being conducted on a round-the-clock basis where they are needed. Special maintenance squads are being organized to refurbish plant facilities that do not come up to the standards of the '70s. And a number of the Bell companies are experimenting with a variety of new programs, each matched to local needs, designed to make sure that the customer gets what he wants when he wants it—a new beige phone next Tuesday or a complex of facilities to interconnect the computers of a multi-plant corporation.

To assure the high performance of the Bell System's interstate network and to enhance its proficiency, the Long Lines Department in early 1970 established a prototype Network Service Center at Rockdale, Georgia. The mission of the center is to pinpoint network troubles quickly and thereby speed their solutions. By year's end the center was joined by three others—in Chicago, Denver and Kansas City.

The continued growth of telecommunications, together with the great mobility of Americans and their changing needs, require that we seek out imaginative new ways of making our services readily and conveniently available. For example, last year in a special marketing experiment, telephone customers in a southeastern Florida community were provided a means of shopping for telephones in the same way they shop for groceries in a supermarket. Participants in the trial live in high-rise apartments which have been prewired with plug-in jacks. To select their phones, they enter a nearby PhoneCenter, as it is called, where telephones of various types, models and colors are attractively displayed. Once the customer has chosen his sets, he can simply carry them home and plug them in. Over the next several months, similar trials will be conducted elsewhere, in neighborhoods made up of garden-type apartments and one-family homes.

While we experiment with new ways to serve our customers better, we work constantly at our job of improving basic telephone service. Service throughout most of the country is good and getting better.

Over 500 million calls are being originated every business day, and in 98 per cent of these calls, the customer receives dial tone in three seconds or less.

More than 32 million calls are made each day to our operators and they are being answered on an average well within ten seconds.

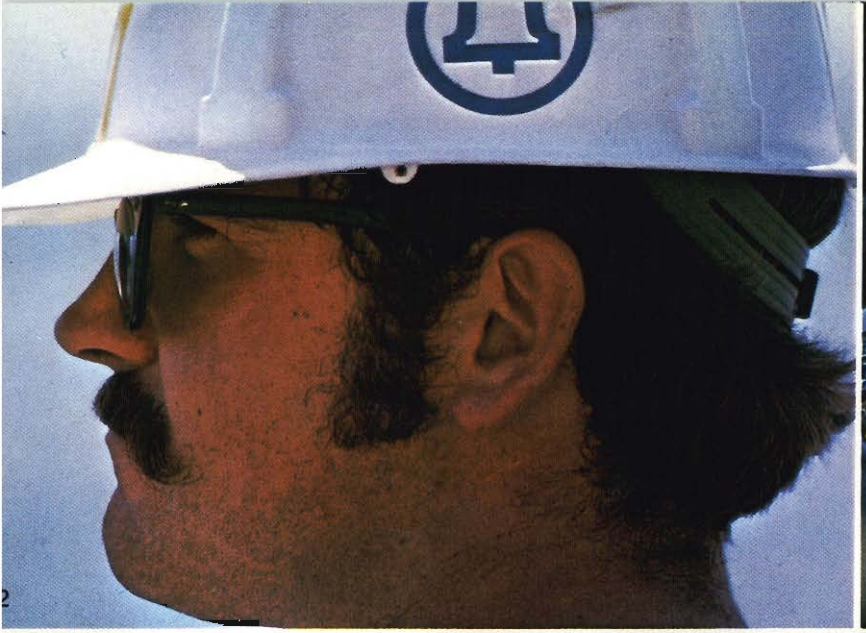
It is our aim to make these results better. It is not to dismiss or excuse the difficulties some of our customers have experienced that I point out that no business in the world successfully completes so many individually tailored customer transactions as does the Bell System. Last year we handled over 120 billion calls. These calls originated from 6,780 separate local exchanges, each exchange designed to meet local needs. Almost 500 million transactions were handled by our business offices in the course of the year. And our installers visited customer premises some 60 million times. Not every single one of these transactions and contacts was handled to our customers' complete satisfaction—or to our satisfaction. But all but a few were handled quickly, courteously and well.

Science and Technology

Over the years there has been no finer testimony to the far-sightedness of the Bell System's commitment to research than the steady stream of scientific discoveries, technological innovations, and new products and services that have flowed from our laboratories. Scientists at Bell Laboratories have twice won the Nobel Prize: for demonstrating the wave nature of matter and for the discovery of the transistor effect. It was Bell Laboratories people, too, who conceived information theory, developed the basic structure of network broadcasting, pioneered sound motion pictures, created the new science of radio astronomy, developed and built the first electrical digital computer, demonstrated the first inter-city transmission of television, invented high fidelity sound reproduction, created microwave radio and coaxial cable systems, and developed the first communications satellite (Telstar).

Today, the creative ferment that has become so much a part of Bell System tradition is continuing to produce new and exciting discoveries.

12. Cable Splicer
San Francisco, Calif
13. Service Adviser
Boston, Mass
14. Transmissionman
New York, N.Y



The great upsurges in demand for communications service anticipated for the future require that top priority be given to the development of transmission systems capable of handling many times the number of messages carried by present equipment. The necessary technology is already available. Current coaxial cable systems have a capacity of more than 30,000 simultaneous conversations, those on the near horizon three times as many, and later in the decade we expect to introduce wave guide systems with an initial capacity of 240,000 conversations. But even this message-handling capability is likely to be dwarfed by that of systems that utilize the laser. Last year Bell Laboratories announced advances in new types of high speed electronic circuits that make it possible to send one billion bits of information per second over a laser beam. This is equivalent to transmitting a library of 50,000 volumes in about eight minutes. The new development brings us another step towards the possibility of using lasers to carry telephone calls, data messages, television and Picturephone messages in bundles perhaps 10,000 times larger than now possible with microwaves.

In the same field, Bell Labs scientists have invented the first semiconductor laser to operate continuously at room temperature without the need for costly refrigeration. The active part of the laser is so small—about 15 thousandths of an inch by 3 thousandths of an inch—that it can be operated by a power source as small as a flashlight battery.

Switching technology is basic to our business. It was just over five years ago that, climaxing the largest single development effort in its history, the Bell System ushered in a new era in communications with the cutover of the world's first commercial Electronic Switching System (No. 1 ESS) at Succasunna, New Jersey. At the end of 1970 there were 120 such systems in service equipped to handle 1.8 million customers—and by the end of this year the number will nearly double.

Meanwhile Bell Laboratories has been working on No. 2 ESS, an electronic system designed especially to serve smaller communities. The first No. 2 ESS office was cut into service in November at Oswego, Illinois.

The largest and most complex switching system in use anywhere in the world is the Bell System's 4A crossbar, an electromechanical system introduced in the early 1950s. The 4A, the key switching element in our nationwide network, permits most long distance calls to be dialed by the customer without the aid of an operator. By the mid-1970s, it is estimated that switching requirements in several large metropolitan areas will have increased to a point where a still larger system will be needed. Accordingly, Bell Laboratories is developing a high-speed electronic toll switching system that has been designated No. 4 ESS. Embodying the most advanced solid-state electronic technology, this new system will employ time-division switching which will be readily adaptable to digital transmission. Bringing this system into being calls for a development effort rivaling that required to develop electronic switching in the first place.

Telecommunications Policy

A year ago in this report I called attention to the proliferation of proposals put forward by organizations seeking to provide communications services along selected routes already served by common carriers. Since that time the FCC has issued a Notice of Inquiry seeking the views of interested parties as to whether the public interest would be served, as its staff avers it would, by permitting the entry of such carriers. The main points of the Bell System's response are these:

1. As I said in last year's report, the Bell System does not seek protection from competition.

2. We do not believe, however, that there has been a sufficient examination of the potential consequences to warrant an unqualified assertion that the public interest would be best served by permitting the virtually unrestricted entry of competing carriers that the Commission staff proposes. Particularly important in our view is the need for the fullest exploration of the potential impact of such entry on the existing common carriers' system of nationwide average pricing.

3. We believe that competition in intercity communications, should it be authorized, should be in fact *real* competition—with ground rules equally applicable to all parties.

In our reply to the Commission's inquiry, we said

15. **Switchma**
Taunton, Mas

16. **Business Office Supervisc**
Philadelphia, P.

17. **Electronics Design Enginee**
Holmdel, N.

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that we believed that these are matters of sufficient moment that they cannot be resolved peremptorily, without the most careful study and consideration. We believe a public hearing is required. At this writing the Commission has not indicated what course it will follow. It goes without saying that, should competition be authorized, the Bell System will prove itself an aggressive and effective competitor.

Revised tariffs facilitating the connection of customer-owned communications lines and devices to the Bell System telecommunications network have been in effect in most states for almost two years. Offering customers more choice, more options in using our network, these interconnection arrangements promise to stimulate further increases in the usage of our nationwide facilities.

In proposing the new ground rules for network interconnection, we recognized that hazards to quality communications service—and to communications employees and users—could result from unrestricted linkage of customer-provided equipment to our facilities and urged that strong safeguards—in the form of approved connecting arrangements—be required to protect against such hazards. A panel of the National Academy of Sciences confirmed last year the importance of appropriate safeguards in a report to the FCC. The NAS found that present tariff regulations do provide the needed protection. However, the Academy suggested that such protection could also be provided, within present tariff criteria, by adoption of an enforced program for the standardization and certification of customer-provided facilities. We are ready to explore this proposal. We are not ready, however, to concur in any programs that would weaken service protection.

The question of whether users of international communications are best served by satellites or cables, or some combination of the two, has been debated for several years. Our position today is what it has always been: both are needed to assure continuity of service and to encourage continued technological development in both arts for the future.

We are strongly supported in this position by all of our foreign partners with whom we jointly own the cables and by the Department of Defense, which depends on overseas communications facilities for national security. We believe it is in the national interest.

Accordingly, AT&T last year filed an application to construct a sixth transatlantic cable. TAT-6, as we call it, is urgently needed if we are to avoid possible service interruptions and avoid as well the serious imbalance that will develop between cable and satellite circuits to Europe if the new cable is delayed.

Domestically, as well as internationally, we must continue to explore any and all avenues that will help us handle tomorrow's tremendous demands. Thus, in October, we filed with the FCC a proposal for a domestic satellite system that would be used as an integral part of the Bell System's nationwide communications network. The completed system would include two 10,800-circuit satellites in geostationary orbits and five earth stations. It would carry long distance telephone and Picturephone calls, data and occasional television programming. Comsat would furnish and operate the satellites for our use, and we would build, own and operate the earth stations. AT&T's total gross investment for the system is estimated at $65 million and annual operating costs at $17 million, plus about $29 million for the lease of Comsat facilities.

Human Affairs

At year's end Bell System employment exceeded 1,000,000.

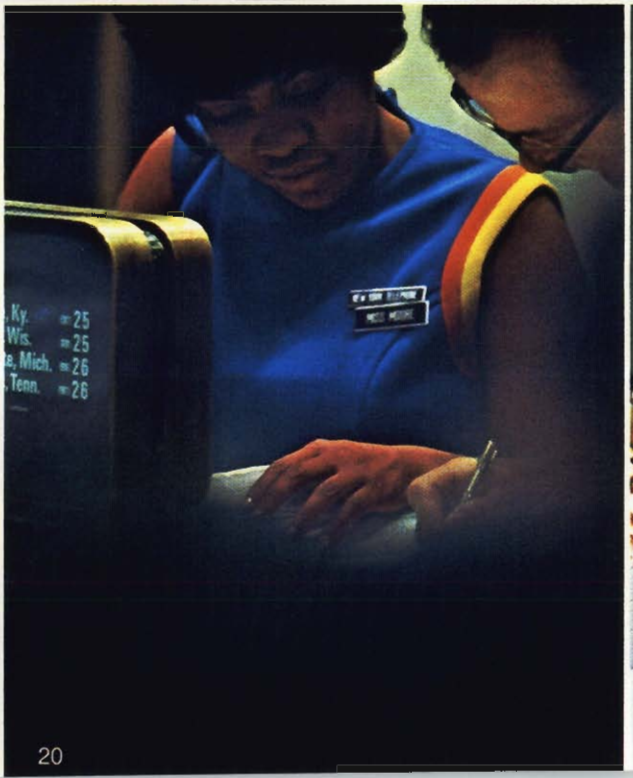
With an employee body so large, and with so many thousands of new and inexperienced young people entering the business each year, the task of maintaining the vitality of the Bell System's tradition of service to the public is, of course, a demanding one. It is to my mind the first responsibility of Bell System management.

It was with this in mind that we last year reorganized certain executive responsibilities with a view to giving stronger support to the Bell System companies in the introduction of new services and the construction and operation of our physical facilities. At the same time, we combined under a single executive vice president all our staff organizations that are functionally concerned directly with human affairs. The aim is to assure that the "people aspects" of our business continue to

18. Engineering Manager
Indianapolis, Ind.
19. Purchased Products Engineer
Springfield, N.J.
20. Public Telephone Attendant
New York, N.Y.
21. Computer Programmer
Piscataway, N.J.

18

19



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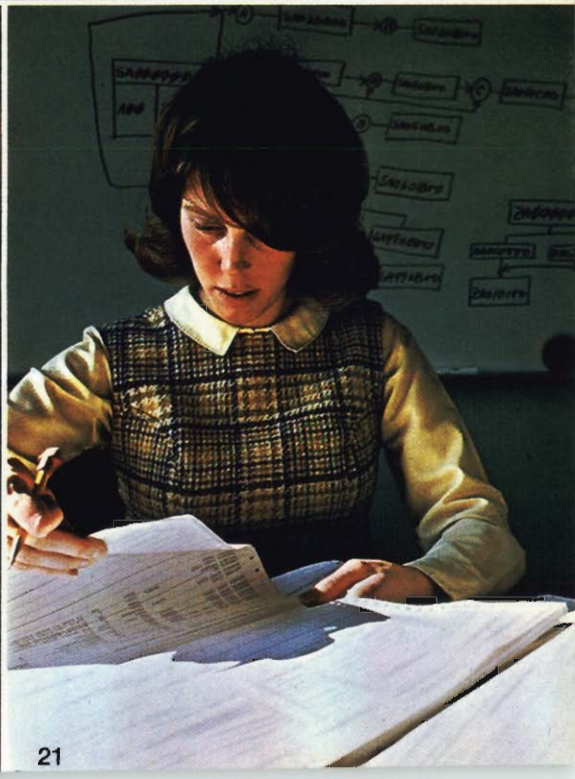

21

receive the same top-level attention that traditionally has been given to operations and finance.

Under the leadership and guidance of these organizations, we are intensifying a System-wide program that began some time ago: that of scrutinizing every aspect of our operations, and indeed every job assignment, in an effort to assure that they are interesting and personally satisfying, that they provide the widest possible scope for individual initiative and responsibility, and that the end purpose of our work—good, courteous service—is recognized and accepted by every employee.

It was to this end that we inaugurated several years ago a program known as The Work Itself—a program that was widely extended in 1970. Briefly, the theory behind the program is simply that job satisfaction—and performance—is a function of the degree of real responsibility entrusted to individual employees and the opportunities they are provided to utilize their talents and skills to the fullest. Most people need and want to probe the outermost limits of their capabilities. Given the chance, they will.

Big city problems were a major preoccupation of our new Human Affairs organization in its first year—and for good reason. The nation's 30 largest cities account for one-fourth of all Bell System revenues, one-fourth of its physical plant and fully one-third of its employees. Clearly big city problems are Bell System problems too.

Among big city employers, we, of course, are not alone in finding a disturbingly high proportion of young people ill-equipped by education and background to meet the performance standards that high quality service to the public demands. We are not alone in confronting the need for costly remedial efforts to overcome these inadequacies. We are not alone in experiencing distressingly high employee turnover rates—a reflection perhaps of the general restlessness that seems to pervade urban society today. And we are not alone in discovering that—to cope with a changed environment—we must change ourselves.

These are social problems—and we have no illusions that the Bell System by itself can solve them. But we owe it to ourselves and to the communities we serve to do all we can to help new employees learn the satisfactions that derive from a job well done.

In addition we have earnestly and effectively worked to continue to expand employment opportunities for minorities. At year's end, minority employees accounted for 12.5 per cent of our work force, compared with about three per cent in 1960. Accordingly, we were surprised when, late in the year, the Equal Employment Opportunities Commission intervened in proceedings before the FCC, charging the Bell System with discriminatory practices. I felt then, and still do, that the EEOC action was unreasonable. Far from being laggards in this area, we have been leaders in fostering employment opportunities for minorities.

Our Human Affairs organization—in concert with the operating departments of the Bell System—has undertaken a wide range of projects, admittedly experimental, addressed to increasing the effectiveness of new employees. We recognize that we live in a time of changing values—and we recognize that the effective motivation of people depends on a readiness to respond to change and a willingness to experiment with new ideas. And so we are experimenting. We have undertaken these experiments with no preconceptions except this one: that it is no less important that we apply concerted and systematic effort to the development of our human resources than it is to the development of our physical resources—indeed, it is more so.

Some 700,000 of the Bell System's employees are represented by unions. In 1971 the three-year contracts governing wages and working conditions for these employees will expire. Collective bargaining need not be and should not be a simple contest of power in which the objective of one party is to get as much as possible, of the other to give as little as possible. Nor do I believe that in our industry the interests of the parties are so opposed that the process cannot contribute positively to better performance and a brighter future. I anticipate that the bargaining process this year will be an arduous one. It usually is. For our part, we enter it with a view of reaching a schedule of wages and benefits, matched to conditions in the communities where we operate, that will permit the Bell System to attract and hold the kind of people we need to do a quality job for the public.

Under the heading of Human Affairs, three final

22. Directory Assistance Operator
Baltimore, Md.

items warrant mention—all of them evidence of the continued vitality of the Bell System's tradition of service to the community:

☐ 1970 marked the fiftieth anniversary of the Vail Medal. Awarded for noteworthy acts of public service, the awards are named for Theodore N. Vail, the company's chief executive officer in the late 19th and early 20th centuries. In 1970 the Bell System made 58 awards.

☐ At year's end membership in the Telephone Pioneers of America neared 350,000. The Pioneers, the world's largest voluntary association of industrial employees, is made up of active and retired telephone people with 21 or more years' service. Its aims are fellowship and, increasingly, community service through such projects as tutoring school drop-outs, assistance to the blind and helping children with reading problems.

☐ In 1970, as they have for a great many years, telephone employees as citizens—and their companies as corporate citizens—worked in many ways to make their communities better places in which to live and work. Bell System employees by the hundreds served on town councils and school boards and the governing boards of voluntary agencies. And the Bell companies themselves, each through its own separately administered program, provided support for community and educational causes. In 1970 the Bell companies' total contributions to such causes amounted to $15.6 million, or less than a tenth of a per cent of operating revenues. (The AT&T Company contributed $1.3 million of this total.) Of these contributions, over 60 per cent was made to community chests, united funds, hospitals, youth organizations and similar community groups where Bell System employees live and work. Aid to education accounted for another 25 per cent of our grants, principally in support of colleges and universities to which we look for the future leadership of our business. The remainder of our contributions goes toward the support of a variety of civic, cultural and other worthy causes.

Nineteen-seventy is history now—and the publication of this report finds us occupied with the events of another year. If by conventional measures this new year turns out to be a "better" year—and I confidently expect that it will—it will be in large measure because of goals established and initiatives undertaken in the year just past. For a proper appraisal of our performance in 1970 we must then await the verdict of the future. We await that verdict with confidence.

Chairman of the Board

February 10, 1971

BELL SYSTEM PEOPLE (Key to photos)

1. Karen Kusek
AT&T—Long Lines

2. John Glass
Western Electric

3. Sylvia McClendon
Southern Bell

4. Robert Shulman
Bell Telephone Laboratories

5. Emmett Bealer
South Central Bell

6. Robert Paglusch
Western Electric

7. William Tully
Pacific Telephone

8. Helen Chiffriller
AT&T—Long Lines

9. Victor-Ransom
Bell Telephone Laboratories

10. Andrew Kowalevicz
Western Electric

11. Bernice Stevens
Southwestern Bell

12. Edward Brennan
Pacific Telephone

13. Mary Fahey
New England Telephone

14. James Cengia
AT&T—Long Lines

15. Octave Pelletier
New England Telephone

16. Judith Ann Hedlund
Bell Telephone of Pennsylvania

17. John Kunish
Bell Telephone Laboratories

18. Robert Wilson
Indiana Bell

19. Henry Birdsall
Western Electric

20. Margaret Moore
New York Telephone

21. Patricia Kaufhold
AT&T

22. Sheila Parker
Chesapeake and Potomac

THE FINANCIAL STATEMENTS on the following pages consolidate the accounts of American Telephone and Telegraph Company and its telephone subsidiaries. These companies maintain their accounts in accordance with the Uniform System of Accounts prescribed for telephone companies by the Federal Communications Commission.

For the companies consolidated, all significant intercompany items are excluded from these statements. Investment in subsidiaries not consolidated as stated in the Balance Sheets includes the equity of such subsidiaries, and the interest in their earnings is included in the Income Statements.

Most of the telephone equipment, apparatus and materials used by the companies consolidated has been manufactured or procured for them by Western Electric Company, Incorporated, the principal subsidiary not consolidated. Contracts with the telephone companies provide that Western's prices to them shall be as low as to its most favored customers for like materials and services under comparable conditions. Items purchased from Western by the telephone companies are entered in their accounts at cost to them, which includes the return realized by Western on its investment devoted to this business.

A. L. STOTT
Vice President and Comptroller

Statements of Income and Reinvested Earnings

	THOUSANDS OF DOLLARS YEAR 1970	YEAR 1969
OPERATING REVENUES		
Local service	$ 8,455,967	$ 7,774,392
Toll service	7,874,069	7,297,842
Miscellaneous	764,810	705,803
Principally from directory advertising		
Less: Provision for uncollectibles	139,965	94,270
Total operating revenues	16,954,881	15,683,767
OPERATING EXPENSES		
Maintenance	3,373,303	2,942,952
Depreciation	2,531,972	2,315,710
Portion of the cost, computed on the straight line method, of depreciable plant charged against current operations, approximately 5.3%		
Traffic	1,469,573	1,334,049
Costs, principally operators' wages, incurred in the handling of messages		
Commercial	577,454	510,864
Primarily costs of local business office operations		
Marketing	754,845	687,233
Accounting	513,420	496,201
Research and fundamental development (a)	120,358	106,084
Provision for pensions and other employee benefits (b)	1,018,993	799,371
Other operating expenses	786,051	660,028
Less: Expenses charged construction	277,595	240,649
Total operating expenses	10,868,374	9,611,843
Net operating revenues *(carried forward)*	$ 6,086,507	$ 6,071,924

For notes, see page 24

	THOUSANDS OF DOLLARS YEAR 1970	YEAR 1969
Net operating revenues *(brought forward)*	$ 6,086,507	$ 6,071,924
OPERATING TAXES		
Federal income (c)	1,573,396	1,978,579
State, local and social security	1,691,408	1,518,304
Total operating taxes	3,264,804	3,496,883
Operating income	2,821,703	2,575,041
OTHER INCOME (d)	370,998	325,700
Income before interest deductions	3,192,701	2,900,741
INTEREST DEDUCTIONS	1,003,301	702,043
NET INCOME	2,189,400	2,198,698
EARNINGS PER SHARE *based on average shares outstanding, 549,266,000 in 1970 and 549,264,000 in 1969*	$3.99	$4.00
Add Reinvested earnings at beginning of year	9,085,508	8,239,364
Deduct: Dividends declared	1,428,092	1,345,697
Per share: 1970, $2.60; 1969, $2.45		
Miscellaneous—net	1,163	6,857
REINVESTED EARNINGS AT END OF YEAR	$ 9,845,653	$ 9,085,508

ASSETS	THOUSANDS OF DOLLARS December 31, 1970	December 31, 1969
TELEPHONE PLANT AND OTHER INVESTMENTS		
Telephone Plant—at cost		
Land, buildings and equipment		
In service	$52,150,445	$47,482,327
Under construction	2,584,619	1,708,638
Held for future use	78,138	53,524
	54,813,202	49,244,489
Less: Accumulated depreciation	12,262,989	11,235,038
	42,550,213	38,009,451
Other investments		
Investment in subsidiaries not consolidated (e)	2,631,908	2,159,759
Other (f)	406,811	190,499
	45,588,932	40,359,709
CURRENT ASSETS		
Cash and temporary cash investments	1,083,790	848,132
Receivables—less allowance for uncollectibles:		
1970, $27,712,000; 1969, $20,577,000	2,186,727	2,053,129
Material and supplies	287,629	226,681
	3,558,146	3,127,942
PREPAID EXPENSES AND DEFERRED CHARGES	494,431	415,470
TOTAL ASSETS	$49,641,509	$43,903,121

For notes, see page 24

LIABILITIES AND CAPITAL	THOUSANDS OF DOLLARS December 31, 1970	December 31, 1969
EQUITY		
American Telephone and Telegraph Company		
Common shares—par value $16⅔ per share (g)	$ 9,154,586	$ 9,154,401
Authorized 600,000,000 shares		
Outstanding at December 31, 1970, 549,275,000 shares		
Premium on shares	5,294,506	5,288,923
Proceeds in excess of par value		
Reinvested earnings—*see page 21*	9,845,653	9,085,508
	24,294,745	23,528,832
Minority interests	798,276	785,504
	25,093,021	24,314,336
DEBT (h)		
Long-term	18,248,326	14,149,000
Notes payable—interim financing	2,205,335	1,719,029
	20,453,661	15,868,029
CURRENT LIABILITIES		
Accounts payable	1,565,595	1,348,407
Advance billing and customers' deposits	423,628	388,648
Dividends payable	369,142	369,137
Taxes accrued	728,582	769,381
Interest accrued	283,613	211,863
	3,370,560	3,087,436
DEFERRED CREDITS		
Unamortized investment credit	591,294	571,492
Deferred income taxes	114,358	37,966
Other	18,615	23,862
	724,267	633,320
TOTAL LIABILITIES AND CAPITAL	$49,641,509	$43,903,121

Statements of Source and Disposition of Funds

Source of Funds	THOUSANDS OF DOLLARS YEAR 1970	YEAR 1969
Operations		
Net income	$2,189,400	$2,198,698
Depreciation	2,531,972	2,315,710
	4,721,372	4,514,408
Increase in debt	4,585,632	2,438,099
Other—net	29,363	90,034
	$9,336,367	$7,042,541

Disposition of Funds	THOUSANDS OF DOLLARS YEAR 1970	YEAR 1969
Telephone plant	$7,072,734	$5,570,258
Dividends	1,428,092	1,345,697
Increase in working capital	147,080	26,766
Increase in other investments	688,461	99,820
	$9,336,367	$7,042,541

Notes to Financial Statements

(a) Principally cost of work carried on for American Telephone and Telegraph Company by Bell Telephone Laboratories. In addition, Western Electric Company incurs costs for development work.

(b) The Company and its subsidiaries have non-contributory plans covering all employees that provide for service pensions and 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 pensions and death benefits, including amounts charged construction, was $674,036,000 in 1970 and $562,027,000 in 1969. About $145,000,000 in 1970 and about $80,000,000 in 1969 are the result of amendments to the plan effective June 1, 1969, principally the elimination of an adjustment of pensions for the old-age benefit under the Social Security Act.

(c) Includes $71,408,000 of taxes deferred in 1970 as a result of adopting accelerated depreciation for tax purposes.

(d) Includes principally the earnings of Western Electric Company and its subsidiaries of $253,447,000 in 1970 and $227,025,000 in 1969; interest charged construction of $145,241,000 in 1970 and $92,097,000 in 1969; less minority interests in net income of subsidiaries of $65,249,000 in 1970 and $64,117,000 in 1969.

(e) Equity in subsidiaries not consolidated of which $2,443,695,000 at December 31, 1970 and $2,006,248,000 at December 31, 1969 was in Western Electric Company.

(f) At December 31, 1970 includes $117,362,000 cost of investments in and advances to three other associated telephone companies, The Southern New England Telephone Company, Cincinnati Bell Inc., and Bell Canada; $57,915,000 investment at cost in Communications Satellite Corporation and $200,000,000 of temporary cash investments to refinance 2¾% Debentures due February 1, 1971.

(g) At December 31, 1970 warrants were outstanding to purchase 31,375,000 common shares of the Company, at $52 per share, at any time through May 15, 1975. During 1970, warrants to purchase 11,000 shares were exercised.

(h) Interest rates and maturities on long-term debt outstanding at December 31, 1970, in millions of dollars, were as follows:

Maturities	2⅝% to 3⅞%	4% to 6⅞%	7% to 9⅜%	Total
1971-1979	$1,070	$ —	$ 150	$ 1,220
1980-1989	2,480	583	—	3,063
1990-1999	642	3,497	150	4,289
2000-2010	—	4,412	5,264	9,676
Total	$4,192	$8,492	$5,564	$18,248

The above table includes $200 million 2¾% Debentures due February 1, 1971, which had been refinanced and were redeemed upon maturity.

Notes payable consist of borrowings from banks and commercial paper due twelve months or less from date of issue. At December 31, 1970 the average rate of interest on these notes was 6.3%.

Since December 31, 1970 the Company has committed for sale $500,000,000 of Thirty Year Debentures and nine subsidiaries have sold or announced their intention to sell an aggregate of $1,465,000,000 of long-term debt maturing after 2000. The proceeds of such sales will be applied toward repayment of interim debt and for general corporate purposes, including extensions, additions and improvements to plant.

TO THE SHARE OWNERS OF AMERICAN TELEPHONE AND TELEGRAPH COMPANY:

Report of Independent Certified Public Accountants

We have examined the consolidated balance sheet of American Telephone and Telegraph Company and its telephone subsidiaries as of December 31, 1970 and the related statement of income and reinvested earnings and the statement of source and disposition of funds for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and included such tests of the accounting records of each of the companies consolidated 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 telephone subsidiaries for the year 1969. We did not examine the consolidated financial statements of the Company's principal nonconsolidated subsidiary, Western Electric Company, Incorporated and Subsidiaries, which statements were examined by other independent accountants whose report thereon has been furnished to us. Our opinion expressed herein, insofar as it relates to the amounts included for Western Electric Company, Incorporated and Subsidiaries, is based upon such report.

In our opinion, the consolidated financial statements on pages 20 to 24 present fairly the consolidated financial position at December 31, 1970 and 1969 and the consolidated results of operations and the consolidated source and disposition of funds for the years then ended, of American Telephone and Telegraph Company and its telephone subsidiaries, in conformity with generally accepted accounting principles applied on a consistent basis.

LYBRAND, ROSS BROS. & MONTGOMERY

2 Broadway, New York, N.Y., February 10, 1971

AT&T

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