

Annual Report

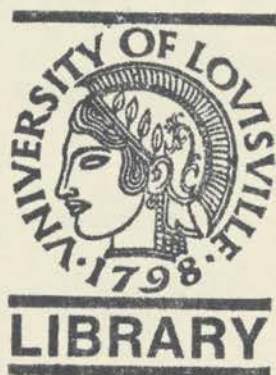
OF THE

**U. S. DEPARTMENT OF
HEALTH, EDUCATION, and WELFARE**

1953



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HEALTH, EDUCATION AND WELFARE

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As of May 1954

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The following information is for the use of the Adjutant General's Office in the Department of the Army.

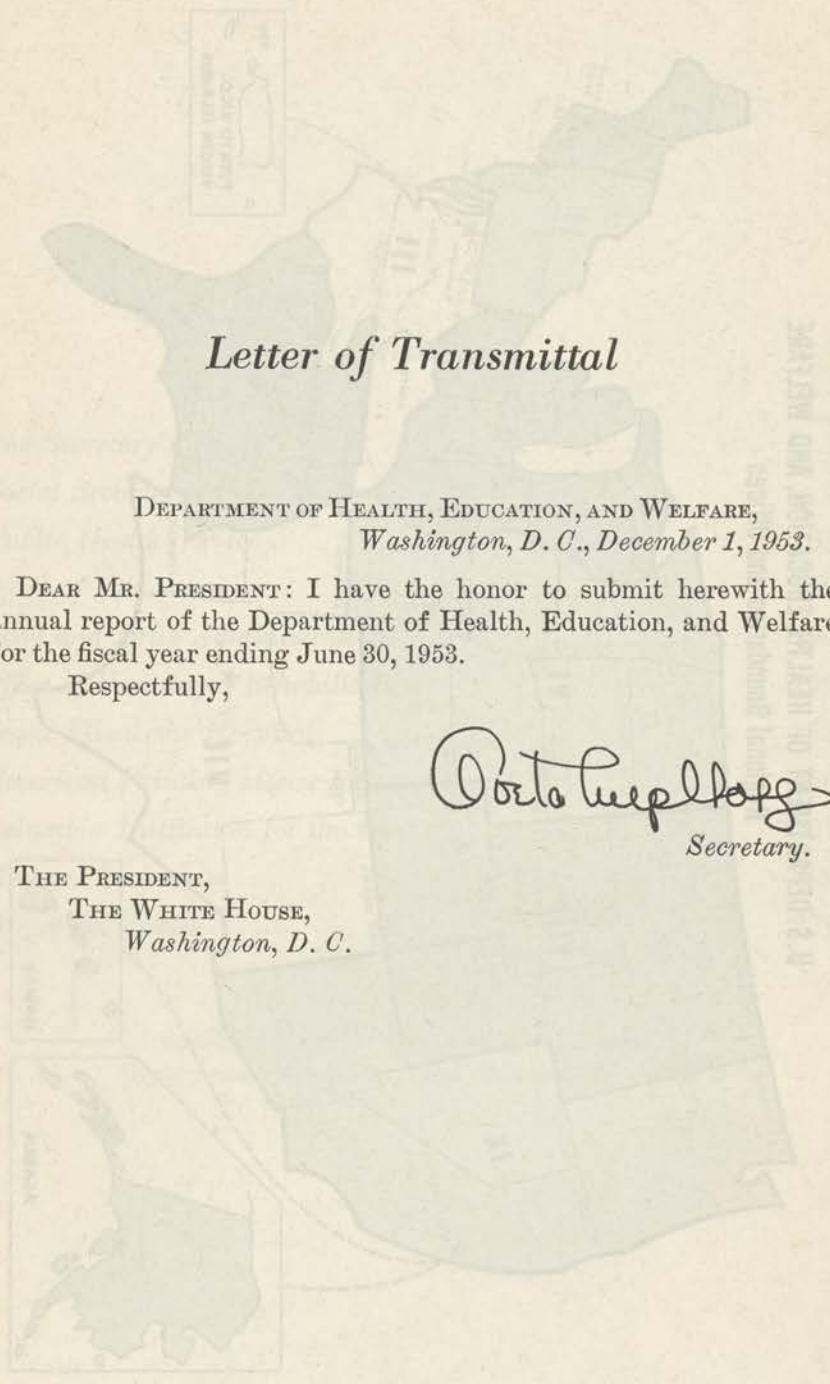
REGIONAL DIRECTOR

Regional Director
The following information is for the use of the Regional Director in the Department of the Army.

General Information
The following information is for the use of the Adjutant General's Office in the Department of the Army.

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Letter of Transmittal

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
Washington, D. C., December 1, 1953.

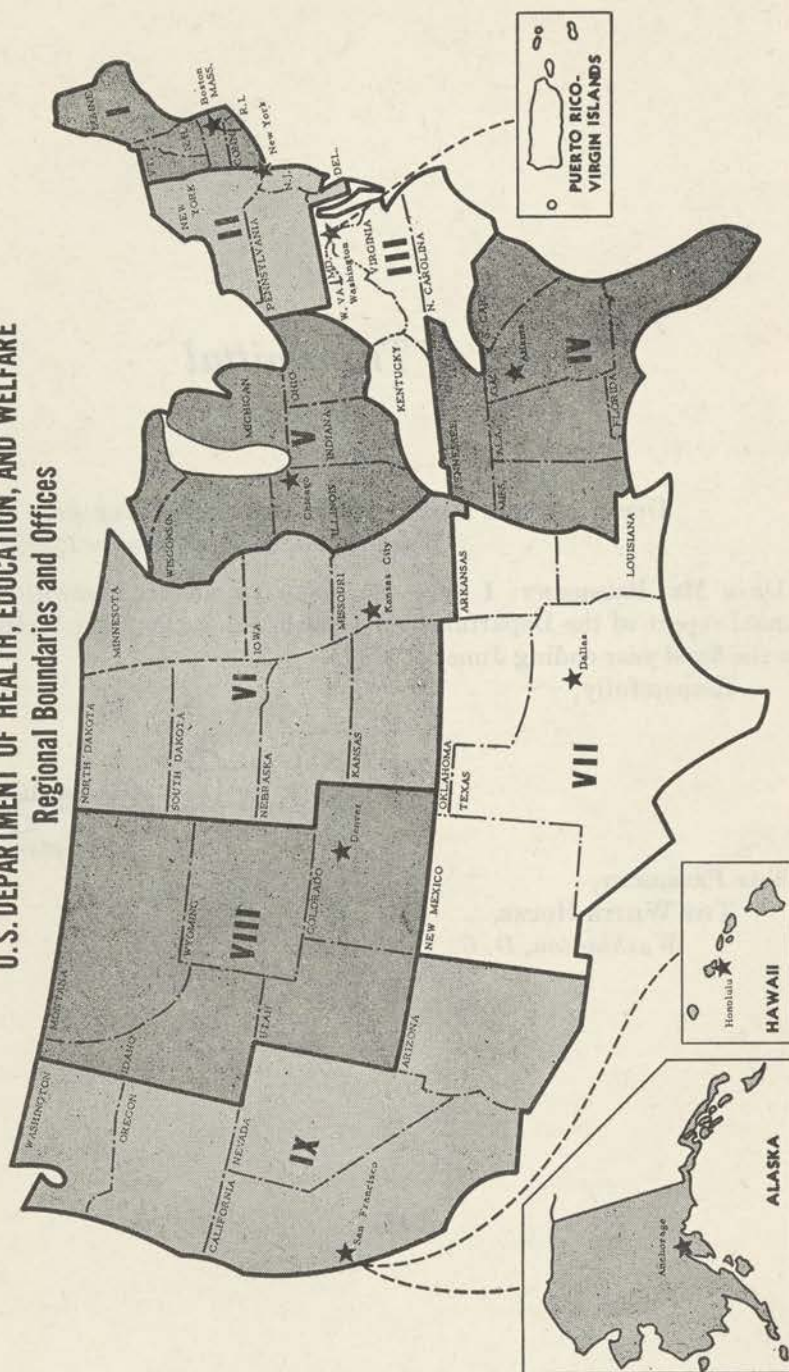
DEAR MR. PRESIDENT: I have the honor to submit herewith the annual report of the Department of Health, Education, and Welfare for the fiscal year ending June 30, 1953.

Respectfully,

Orto Lupello
Secretary.

THE PRESIDENT,
THE WHITE HOUSE,
Washington, D. C.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE Regional Boundaries and Offices



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The Secretary's Report

ON APRIL 11, 1953, President Eisenhower signed legislation enacted by the 83d Congress creating the Department of Health, Education, and Welfare.

In bringing together the somewhat loosely knit units that, since 1939, had made up the Federal Security Agency the President and the Congress assured permanent and continuing representation of the Agency's programs at the highest councils of the Executive Branch of the Government.

This action was undoubtedly the single most important event of fiscal 1953 with respect to the health, education, and welfare programs of the Federal Government.

It came about as a result of Reorganization Plan No. 1 which was submitted by the President to the Congress on March 12, 1953, and represented translation into fact of action first recommended as long ago as the Administration of President Warren G. Harding.

In an historical sense, the creation of the Department may also be thought of as a landmark in a concept that runs deep in American life. It is a concept embodied in the Preamble to the Constitution, and later made explicit in the body of that great document.

The purposes of the Constitution are defined in the Preamble as "to form a more perfect Union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity."

Among the duties of the Congress defined under Article I, Section 8, are the "power to lay and collect taxes, duties, imposts, and excises to pay the debts and provide for the common defense and general welfare of the United States."

It is significant to point out, however, that this concept is stated in broad terms. While affirming the responsibility of Government, it

presumes that the specific measures through which application of this broad principle would be made would be the responsibility of succeeding generations.

It is significant also to note that the establishment of each of the major units of the Department is traceable to specific periods in our history when provision for the national welfare emerged as national needs.

The Public Health Service, to take the earliest example, was established by Congress in 1798 to care for merchant seamen and help keep disease from the shores of the young Republic. As an outgrowth of the turbulent years of the Civil War, Congress founded Howard University in 1865, when there was a felt national need to establish higher education opportunities in an institution which made no distinction on admissions because of race, creed, or color. Recognition of the importance of formal education in developing well-informed and responsible citizens also gave rise to the formation of the Office of Education in 1867.

In 1906 the first Federal Food and Drug Act was passed, acknowledging the fact that in an increasingly complex economy, Americans were becoming more dependent on manufactured food products and means to ensure their safety and purity were needed. In 1912 the special importance of the problems of children and youth to the future of the Nation was signalized by the creation of the Children's Bureau.

In 1935, with overwhelming bi-partisan support, the old-age insurance and public assistance programs of the Social Security Administration were authorized by the Congress.

Other significant dates in the history of the Department include: the establishment of Saint Elizabeths Hospital for mental illness in 1855; the founding of the Columbia Institution for the Deaf in 1857; the start of Federal support of the American Printing House for the Blind in 1879; and the first grants to the States to encourage the vocational rehabilitation of physically disabled civilians, in 1920. The Office of Vocational Rehabilitation was founded in 1943 to carry on an expanded program in the latter field.

The establishment of the Department of Health, Education, and Welfare is, of course, itself an example of response to new needs and challenges in our society.

As the Nation has grown and changed, the Congress has altered or expanded the responsibilities of these specialized organizations that comprise the Department. The Public Health Service, for example, now administers a very great variety of programs. Sometimes the original purpose for which these programs were established has been virtually eclipsed by the rush of events and the consequent process of amendment and improvement by Congress. Certainly their

functions and activities will continue to respond to changing circumstances, as the will of our people is made known through the Congress.

Another aspect of the historical development of the programs of health, education, and welfare is noteworthy. It is the fact that, by and large, the choice of the American people for action in these fields has been through what can be described as multiple partnerships rather than exclusively through governmental action. The notable improvements that have been achieved in public health, in education, and in welfare in our history have thus been the result of the efforts, for example, of voluntary associations and private philanthropic institutions working alone or with local and State governments as well as the Federal Government for the general welfare.

This pattern of action, to which this Department whole-heartedly subscribes, is based on traditions of self-reliance and neighborliness that are part of the fabric of American life.

The present administration of the Department assumed responsibility on January 20 of 1953.

Two immediate tasks were undertaken. One was a thoroughgoing review of the basic legislation, policies and programs of the Department. The second was a comprehensive review of the organization, staffing pattern and procedures necessary to carry out the Department's varied programs.

It was necessary to ask, it was felt, whether the legislation the Department was called on to administer was sufficient for the needs of the Nation in this decade of the fifties and beyond. Furthermore, it was necessary to ask whether the Department was equipped organizationally to carry out the programs that had been entrusted to it by the Congress.

To that end initial steps were taken in setting up task forces within the Department for each of the major subdivisions to study the programs and their administration. These task forces included representatives of the Secretary's Office, the heads of the subdivisions and a staff of technicians—some from within the Government itself, others from outside Government who were able to bring to the studies objectivity and a wealth of experience.

As a first step toward improved internal administration of the Department came the establishment of a Departmental Council. This is made up of the heads of the constituent units of the Department and members of the Secretary's immediate staff. It now meets weekly to consider questions of importance concerning both the machinery of operations and matters of policy.

A thoroughgoing internal security program was ordered by the President for every agency of the Government. A new Director of Internal Security was appointed by the Department and regulations

were issued to carry out Executive Order 10450, and a staff was recruited to see that security measures, which would safeguard both the Department and the individuals concerned, were instituted and enforced.

By the close of the year covered in this report considerable progress had been made in carrying out the provisions of the Executive Order.

The reorganization as a result of the establishment of the Department during the early months of 1953 had, as additional guiding principles, the need for an economy in operations which would be brought about without disruption of the many services for which the Department is responsible to the American people.

The opportunity for effecting economies in the departmental budget is considerably limited by the fact that the Federal contribution to public assistance—that is for cash payments to the needy aged, the needy blind, dependent children, and the disabled—is fixed by law. Of the total budget for fiscal 1954 of \$1,786,528,000 which had been recommended by the previous Administration, \$1,340,000,000, or 75 percent, was made up of these “uncontrollable” items.

It was possible, however, to achieve a sizeable reduction in the one-quarter of the Department’s budget that represented “controllable” expenses. Whereas the previous Administration had requested Congress to appropriate \$486,000,000 for the 1954 fiscal year (exclusive of the public assistance grants-in-aid mentioned above), it was possible to reduce this request by slightly more than 13 percent, to \$382,000,000. The Congress subsequently appropriated \$468,691,261 for this “controllable” portion of the Department’s budget for the fiscal year 1954. Although every constituent of the Department was responsible in some measure for the saving achieved, there was no arbitrary cut “across the board.” The effective functioning of the Department remains unimpaired.

As a result of these reductions and other measures of economy and efficiency, it was possible to bring about the reduction of the number of employees of the Department. At the end of the fiscal year the staff of the Department numbered 36,739 full-time employees—1,315 fewer than at the end of the preceding year. Of this decline, 1,192 separations became effective from March through June 1953. Approximately three-fourths of the reduction came as the result of normally occurring resignations and retirements. Through close scrutiny of vacancies that occurred, with replacements made only in instances of clear necessity, it was possible to achieve this reduction without hardship to the great majority of the Department’s personnel.

This reduction was accomplished despite the necessity for initial staffing of the new Clinical Center of the Public Health Service. When fully manned, this unique research facility itself will account for at least 2,000 of the Department’s employees.

Although the workload in the old-age and survivors insurance offices increased continuously, a decrease was also achieved in the staff of the Social Security Administration through instituting more modern techniques and procedures.

Further savings by this method appear possible through the use of electronic equipment in keeping the record of earnings of the millions of employees in the Old-Age and Survivors Insurance system. As an example, one device that is being studied can scan documents electronically and automatically prepare punch cards. If it can be utilized—and it seems likely that it can be—additional savings will amount to about \$800,000 a year.

Personnel of the Department were also encouraged to exercise individual initiative in making contributions toward the ends of economy and efficiency. During the year, 46 cash awards amounting to \$4,850 were made to employees for outstanding efficiency. Two of these were group awards to 22 persons. By the end of the year a saving of nearly \$68,000 had resulted from the suggestions of these employees.

In addition, 178 staff members were given salary increases for superior accomplishment and 432 cash awards totaling \$8,759 were made for worthy suggestions by individual employees. The resulting improvements in management are estimated at approximately \$69,000 for the first year alone.

Several important legislative developments during fiscal 1953 are noteworthy. They represented largely responses to immediate and pressing problems that faced the Department.

The first was the restoration of the power of inspectors of the Food and Drug Administration to inspect factories engaged in the production of foods, drugs and cosmetics. Under a ruling of the Supreme Court, in which the language of the Act was ruled as insufficiently clear, the power of the Food and Drug Administration to conduct these inspections was declared unconstitutional. Legislation to close this loop-hole in the law was, therefore, recommended to the Congress by the President. The measure passed by the Congress was subsequently approved on August 7, 1953.

The second was legislation providing for continuing the program of Federal assistance to the States for construction and for operation of schools in areas in which the influx of workers to man Federal installations, largely of a defense nature, had placed inordinate strain on local school facilities. Legislation recommended by the President was passed which extended this aid through June 30, 1955 for school construction and through June 30, 1956 for school support.

Between the date of the institution of this program in 1950 and the close of the fiscal year, the Office of Education approved construction of 1,330 school building projects, located in 44 States, Hawaii,

Alaska, and Puerto Rico. New classrooms added, according to the Office of Education, will house 350,000 children.

The third development—although it did not result in actual legislative proposals until after the close of the fiscal year—was an intensive study to carry out the recommendation of the President in his State of the Union Message, for prompt extension of the old-age and survivors insurance program to include many millions of Americans not covered under existing law. As an initial step, the Secretary sought the advice of a group of consultants on social security with wide experience in the fields of banking, insurance, education, social work, farm and labor organizations, and industry.¹

This group devoted the spring of 1953 to a careful study of a number of possible ways in which old-age and survivors insurance coverage could be extended to additional workers. Their recommendations were contained in a report transmitted to the Secretary near the close of the fiscal year.² Subsequently, at the request of the President, the views of the consultants were embodied in a bill submitted to the Congress shortly after the close of the fiscal year.

An important milestone in national progress in medical research was passed with the completion of the Clinical Center at the Public Health Service's National Institutes of Health. It was constructed to serve as a center of cooperation between the clinician—the bedside physician—and the laboratory investigator.

The Clinical Center is in fact a combined hospital-laboratory to serve physicians and patients throughout the Nation and to forward research in cancer, mental illness, arthritis, heart disease, and other chronic illnesses. With facilities for 500 patients—who will be admitted from all parts of the country on the basis of the significance of their illness to the Nation as a whole, the Center offers promise of new knowledge that can be turned to the early prevention and control of the most hazardous and least understood diseases that attack the people of the Nation.

The Center was dedicated by the Secretary on July 2, 1953, 2 days after the close of the fiscal year, and admitted its first patients 4 days later.

¹ Reinhard A. Hohaus, New York, N. Y., Vice President and Chief Actuary, Metropolitan Life Insurance Company, Chairman; Thomas H. Beacom, Chicago, Ill., Vice President in Charge of Trusts, First National Bank of Chicago; Eveline M. Burns, New York, N. Y., Economist and Professor of Social Work, New York School of Social Work, Columbia University; Robert P. Burroughs, Manchester, N. H., President and Treasurer of R. P. Burroughs Company, Pension and Profit Sharing Plans; Leonard J. Calhoun, Washington, D. C., Attorney-at-law; Nelson H. Cruikshank, Washington, D. C., Director of Social Insurance Activities, American Federation of Labor; Wallis B. Dunkel, New York, N. Y., Vice President, Bankers Trust Company; Loula Dunn, Chicago, Ill., Director, American Public Welfare Association; Katherine Ellickson, Washington, D. C., Secretary, Social Security Committee, Congress of Industrial Organizations; Hugh F. Hall, Washington, D. C., American Farm Bureau Federation; Lloyd C. Halvorson, Washington, D. C., The National Grange; and A. D. Marshall, Schenectady, N. Y., Manager of Employee Benefits, General Electric Company.

² For a delineation of the recommendations, see pp. 14-29, "Old-Age and Survivors Insurance."

As is indicated in the report of the Public Health Service one of the outstanding achievements of the country during the last half century has been the lengthening of the life span from 47.3 to 68.5 years. The inevitable result has been a consistent expansion of the number and proportion of older people in our population. While the population of the country has doubled within the past 50 years, the number of men and women between the ages of 45 and 65 has trebled. The number who are 65 or older has quadrupled; and today there are approximately 13.5 million men and women who are beyond 65.

To study, report on, and work with the States on matters associated with the problem, the Department maintains, in the Office of the Secretary, a Committee on Aging and Geriatrics. In addition to developing and disseminating information, the Committee seeks to aid in stimulating the development of public and private services for older people.

During the year, for example, a conference of State commissions and committees on the aging was held. Delegates from 15 State agencies took part officially and the Governors of 18 other States sent observers to the conference.

Another Departmental responsibility which should be mentioned concerns the use of surplus property belonging to the Federal Government.

The various laws relating to the disposal of such property assign three major responsibilities to this Department. They are: allocation of surplus personal property to the States for distribution to educational and public health institutions; arrangements for the disposal of surplus real property for education and public health purposes; and protecting the Federal interest by ensuring that surplus property that is supplied to the States is properly used and may be recovered for use during national emergencies.

During fiscal 1953, surplus personal property with an original acquisition value of \$63 million was allocated to State agencies for distribution. New transfers of real property were made to 105 such institutions which acquired 233 buildings and 369 acres of land valued at almost \$2.9 million.

The surplus property program of the Department also supervised the return of real property valued at \$50 million that had previously been transferred to the States for educational or public health use. Since the properties were required for permanent Federal use, reversion of title in the Federal Government was obtained in the amount of \$20 million.

Machine tools previously donated to educational institutions were returned to defense production at savings of \$4.5 million. Other general items of personal property, costing \$2 million, were returned from institutions and placed in defense use. The Department of

Defense was also notified of the availability of electronic equipment valued at almost \$2.5 million. In the course of these activities, cash receipts totaling \$1.8 million were deposited with the Treasurer of the United States.

One of the duties of the Department is to assist the Department of State when an expert knowledge of the fields of health, education, or welfare is required in the development of the foreign policy of the United States. The Department is also a participant in the day-to-day work of the United Nations; in the bilateral programs of foreign technical assistance and exchange of persons supervised by the Department of State; and in the programs of the Foreign Operations Administration in health, education, and welfare.

For the Secretary of State, the Department drafts "position papers" in the fields of its special competence, to serve as guide lines in determining the official attitude of our Government regarding these matters. Senior officials of the Department frequently are appointed by the President to represent the United States at important meetings of international organizations, while others serve in an expert capacity on technical committees of the United Nations, its specialized agencies, and various regional international organizations.

The Department cooperates in developing the health, education, and welfare aspects of the technical assistance programs in 34 of the free nations to which the United States is extending foreign aid. To this end, 426 technicians were recruited during the year for foreign assignments. Through its appropriate constituents, the Department also supervised the programs of approximately 205 United Nations Fellows who were sent to the United States for study and training during the fiscal year. All told, approximately 3,500 foreign visitors received training planned and supervised by the Department.

The foregoing pages have consisted of a description of certain highlights in the work of the Department during fiscal year 1953. The following pages contain the reports of the major sub-divisions and other institutions over which the Department exercises either direct supervision or has responsibilities in connection with their administration.

Taken together, they represent a report, reasonably detailed, of the work of the Federal Government as authorized by the Congress in the important fields of health, education, and welfare.

Their continuing objective, in essence, is the great and humane task of helping the American people help themselves toward a healthier, increasingly more enlightened, and more secure world for themselves and, in this measure, for mankind.

Social Security Administration

Social Security in 1953

DURING THE PAST YEAR the social security program has continued to grow and to provide protection and benefits to increasing numbers of people. Early in his administration, President Eisenhower reaffirmed his belief in the value and general acceptance of contributory social insurance as the basic program through which the people of this country can together provide for their own retirement income and the support of their dependents. The Social Security Administration has continued to review the operations of the existing social security programs and to appraise the effectiveness with which they are achieving their goal.

Old-age and survivors insurance has, from the beginning, been recognized as the basic income-maintenance program for aged persons and for orphans and their widowed mothers. Because it provides only for those who have had an opportunity to work in covered employment, and because, up to the present time, coverage has not extended to all employments, the program has only gradually begun to reveal its full potential effect.

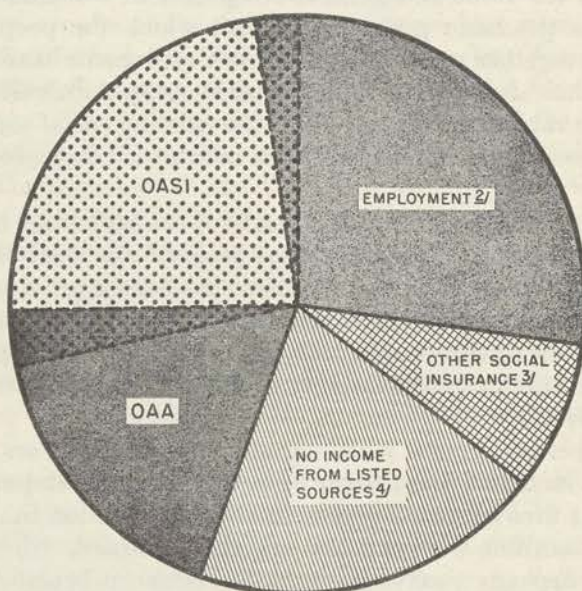
The number of persons receiving old-age and survivors insurance benefits has increased from fewer than 250,000 at the end of 1940, the year benefits first became payable, to about 5.6 million in June 1953. Of these, 1.3 million were children and their mothers. Since 1944 the number of orphans receiving survivor insurance benefits has been larger than the number receiving public assistance through the program for aid to dependent children. Life insurance protection under the old-age and survivors insurance program is acquired after a relatively short period (a year and a half) in covered employment. This

part of the program, therefore, very quickly became effective for workers in the industries covered.

Except for workers already close to or past age 65 at the time the program was started (or when coverage became effective for additional employments at the beginning of 1951), the eligibility requirements for old-age benefits call for substantial periods of covered employment and contributions. Many persons still living had already retired when the program began or had depended on the earnings of persons already out of the labor force. The number of aged persons receiving old-age and survivors insurance benefits first exceeded the number on old-age assistance in February 1951. Since that time the insurance program has continued to grow, and the number receiving old-age assistance has declined slightly. As a result, by June 1953, 32 percent of the aged population were being supported wholly or partly by old-age and survivors insurance while less than 20 percent were receiving assistance. About 3 percent were getting both insurance benefits and supplementary assistance payments.

Chart 1.—WHERE AGED PERSONS GET THEIR CASH INCOME

Percent of persons 65 years and over with income from specified sources,¹ December 1952



¹ Some get income from more than one source; 4.5 percent also get income from private pension plans.

² Includes wives of employed persons.

³ Includes railroad retirement, government employee retirement, and veterans compensation and pension programs.

⁴ Represents persons with income from investments and/or cash income from children and other relatives, and those with no cash income at all.

Thus, the old-age and survivors insurance program is taking its intended place as the basic source of income for retired persons and their families and for orphaned children and their widowed mothers. It is of interest also that by June 1953 the number of persons drawing old-age and survivors insurance benefits (5.6 million) was larger than the number (5.3 million) receiving public assistance under the four federally aided public assistance programs—old-age assistance, aid to dependent children, aid to the blind, and aid to the permanently and totally disabled—and the State and local programs of general assistance. In addition, something over 1 million aged persons and close to 1 million widows under age 65 and orphans receive benefits under the special programs for railroad workers, for Federal, State, and local government employees, and for veterans. About 250,000 persons who are permanently and totally disabled receive insurance benefits from the railroad or Federal, State, and local government employee retirement systems—compared with 179,000 persons who now receive assistance under the aid to the permanently and totally disabled program.

A few groups, notably farmers and certain self-employed persons, are still without social insurance protection. The Social Security Administration has for a number of years recommended that old-age and survivors insurance coverage be made universal. A group of consultants appointed by the Secretary of Health, Education, and Welfare in the spring of 1953 reviewed the question and recommended immediate extension of coverage to practically all employment except that of railroad workers, now covered by a coordinated system, and employees of the Federal Government under existing retirement systems. The consultants deferred consideration of coverage for these two groups because special studies of their retirement protection were initiated in the preceding year by Congress. The recommendations of the consultants are described in the chapter on old-age and survivors insurance.

There are various circumstances in which the community must come to the aid of families who are in difficulties that are beyond their control—circumstances not sufficiently widespread or predictable to be appropriately met through the insurance method. Need resulting from broken homes and deserting parents now brings more children to the aid to dependent children rolls than does the death of the breadwinner. During the past year the Social Security Administration has continued, through its Bureau of Public Assistance and the Children's Bureau and with the State agencies which administer the programs, to work toward the more adequate relief of children and families that are in need of income or other help, and toward the more effective provision of health and welfare services that lay a sound foundation for wholesome development of children.

Juvenile delinquency, commonly one of the consequences of war and of persistent adult fears and tensions, has received special attention from many groups during the past year. The efforts which have been made by the Social Security Administration to study the problem and to bring together the many social, educational, legal, civic, and parental groups with a special concern and interest in it are described in the chapter on the special children's programs.

Federal credit unions again took several strides forward. During the year under review, the number of Federal credit unions in existence, their membership, and their total assets reached new high levels. The Bureau of Federal Credit Unions is now on a completely self-sustaining basis, deriving its operating income from the services of supervision and examination which it provides to individual credit unions.

Program Administration in 1953

On April 11 the Department of Health, Education, and Welfare came into being, with all the functions formerly carried by the Federal Security Agency. The legislation establishing the Department made no change in the responsibilities and functions of the Social Security Administration, but it abolished the position of Commissioner for Social Security, providing that henceforth a Commissioner of Social Security should be appointed by the President with the advice and consent of the Senate.

With the termination on April 10 of his appointment as Commissioner for Social Security, Arthur J. Altmeyer completed nearly 18 years of service with the Social Security Administration. Appointed one of the three members of the Social Security Board in August 1935, he was Chairman of the Board from February 1937 to July 1946, when he was appointed Commissioner for Social Security in the Social Security Administration, which superseded the Board. On Mr. Altmeyer's retirement, William L. Mitchell, Deputy Commissioner since 1946, became Acting Commissioner.

Other administrative changes during the fiscal year included the resignation, on May 8, of Oscar C. Pogge as Director of the Bureau of Old-Age and Survivors Insurance and the retirement on June 14 of Claude R. Orchard, Director of the Bureau of Federal Credit Unions. On June 15, J. Deane Gannon was appointed Director of the Bureau of Federal Credit Unions.

During the fiscal year, all bureaus and offices of the Social Security Administration continued their efforts to improve procedures and organizational structure in order to maintain a high level of efficiency in carrying increasing workloads. At the end of June the staff totaled 14,623, of whom 5,602 were departmental and 9,021 were in field, area,

and regional offices. The departmental staff had 473 fewer persons than at the end of the 1952 fiscal year. This drop occurred almost entirely in the Bureau of Old-Age and Survivors Insurance and had to be absorbed at a time when the volume of claims to be processed for benefits was about twice the normal level. To maintain effective operations in the 512 field and 6 area offices, where claims for benefits are received and much of the work of determining claimant eligibility and benefit amount is carried on, the staff was increased by 282 during the year.

Progress was especially gratifying during the year in extending the "team" approach developed so successfully by the Bureau of Public Assistance and the Office of Vocational Rehabilitation when the program of aid to the totally and permanently disabled went into operation in 1950. Several conferences were held in different parts of the country during the year to coordinate the services of related State agencies in the rehabilitative aspects of aid to the disabled.

In its international activities the Social Security Administration shares with other countries its experience and knowledge in the fields of social insurance and social welfare and in return gains valuable knowledge and insight from the two-way interchange. Experts and visitors who come to this country under United Nations or United States auspices are referred to the Administration for guidance in planning and carrying out their technical training in the social security field. The Administration also recruits technicians from its own staff and from other agencies for special overseas assignments in social welfare projects, at the request of foreign governments and in cooperation with the United States technical assistance program concerned.

During the fiscal year, training programs were planned for almost 1,000 experts and visitors from other countries. Some 60 were long-term trainees (here for periods ranging from 6 months to 2 years) sponsored by the United Nations and the World Health Organization. The long-term trainees under United States auspices included 43 who were sponsored by the Point Four program and by the Mutual Security Agency. In addition, many short-term visitors are referred or come to the Social Security Administration for periods ranging from a week to several months. Their major interests include various aspects of social insurance, public assistance, or child health and welfare services, social work education, and in-service training.

Through the Point Four program, 24 technical experts from the Administration and four recruited from other agencies were working overseas on projects administered or contracted for by the Technical Cooperation Administration. Thirteen specialists were assigned to projects in Latin America, nine were in Egypt, Iraq, or Lebanon, three were in India, and one in Pakistan.

Old-Age and Survivors Insurance

In the President's message of April 1, 1953, transmitting to the Congress his recommendations for extension of old-age and survivors insurance coverage to additional workers, he said: "Retirement systems, by which individuals contribute to their own security according to their own respective abilities, have become an essential part of our economic and social life. These systems are but a reflection of the American heritage of sturdy self-reliance which has made our country strong and kept it free . . . The Social Security program furnishes, on a national scale, the opportunity for our citizens, through that same self-reliance, to build the foundation for their security . . . The systematic practice of setting aside funds during the productive years to build the assurance of basic retirement benefits when the productive years are over—or to one's survivors in the event of death—is important to the strength of our traditions and our economy. We must not only preserve this systematic practice, but extend it at every desirable opportunity."

Under old-age and survivors insurance the covered worker earns security as he works, just as he earns his wages. Through the payment of old-age and survivors insurance taxes, the worker shares directly in meeting the cost of the protection furnished to himself and his family. Because benefit payments vary according to the individual's record of earnings and of contributions, they are—in a country where earnings and standards of living vary widely as between individuals—a more meaningful and effective foundation of security than they could be if they were a flat amount and supported by a flat contribution.

The individual who has earned the right to protection under the insurance program through covered work receives his benefits, on retirement, without regard to other resources he may have. In this way the program provides a foundation of security on which the person may build through the addition of income from private savings and insurance. In building upon his old-age and survivors insurance benefits, he earns for himself and his family a higher standard of living. Thus, his thrift, his planning, and his work bear fruit after as well as before his earnings cease.

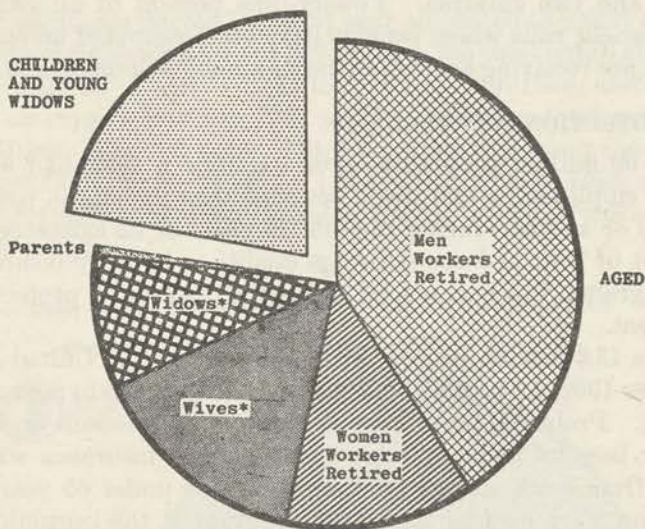
The Social Security Administration believes that the contributory system of old-age and survivors insurance, with benefits related to earnings and paid as a matter of right, should continue to be the basic method of protecting American workers and their families against dependency in old age or on account of death.

The Significance of the Program

BENEFICIARIES AND BENEFIT AMOUNTS

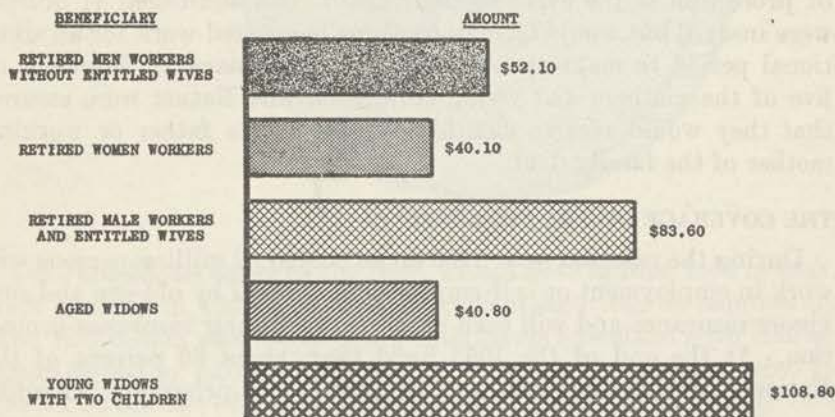
In June 1953 about 5.6 million people were receiving benefits under the program. Some 4.3 million of these beneficiaries were aged 65 and over—3.0 million of them retired workers and 1.3 million the wives and dependent husbands of retired workers and the widows, dependent widowers, and dependent parents of workers who had died. Of the remaining 1.3 million, some 300,000 were young widows and a million were children.

Chart 2.—WHO RECEIVED OLD-AGE AND SURVIVORS INSURANCE BENEFITS, JUNE 1953



*Includes less than 0.5 percent dependent husbands and dependent widowers; wives also include some wives under age 65 with child beneficiaries in their care.

Chart 3.—AVERAGE MONTHLY FAMILY BENEFITS, JUNE 1953



In June 1953, the average insurance benefit paid to a retired worker who had no dependents also receiving benefits was \$48.20 a month. When the worker and his wife both received benefits, the average for the family was \$83.60. Families consisting of a widowed mother and two children averaged \$108.80.

These figures reflect only partially the generally higher benefit amounts payable under the 1950 and 1952 amendments in cases in which the worker has had at least 6 quarters of coverage (roughly 18 months of covered work) after 1950. Benefits computed under the new formula applicable in such cases averaged \$63.10 a month for a retired worker with no dependents receiving benefits, \$104.30 for a retired worker and wife, and \$152.40 for families consisting of a widowed mother and two children. Twenty-nine percent of all retired men on the benefit rolls whose benefits have been computed under the new formula are receiving benefits at the maximum amount of \$85 a month.

THE PROTECTION PROVIDED

Some 90 million people living on January 1, 1953, had worked in covered employment and made contributions under the program at one time or another during the first 16 years of its existence. About three out of four had enough wage credits to be fully insured under the program; for one out of four the insurance protection was permanent.

Of the 13.3 million people aged 65 or over in the United States in December 1952, 4.1 million were working or married to men who were working. Probably 1.9 million of them can now count on receiving monthly benefits under old-age and survivors insurance when their income from work stops. Of the population under 65 years of age, 62 million were insured under the program at the beginning of the calendar year 1953. Some 21 million of these people were permanently insured—that is, whether or not they continue to work in covered jobs they will be eligible for benefits at 65 and their families are assured of protection in the event of their death. An additional 41 million were insured but would have to continue in covered work for an additional period to make their insured status permanent. Four out of five of the mothers and young children in the Nation were assured that they would receive monthly benefits if the father or working mother of the family died.

THE COVERAGE OF THE PROGRAM

During the calendar year 1953 an estimated 62 million persons will work in employment or self-employment covered by old-age and survivors insurance and will earn credits toward their insurance protection. At the end of the 1953 fiscal year, about 80 percent of the Nation's paid civilian jobs were covered by the program. An addi-

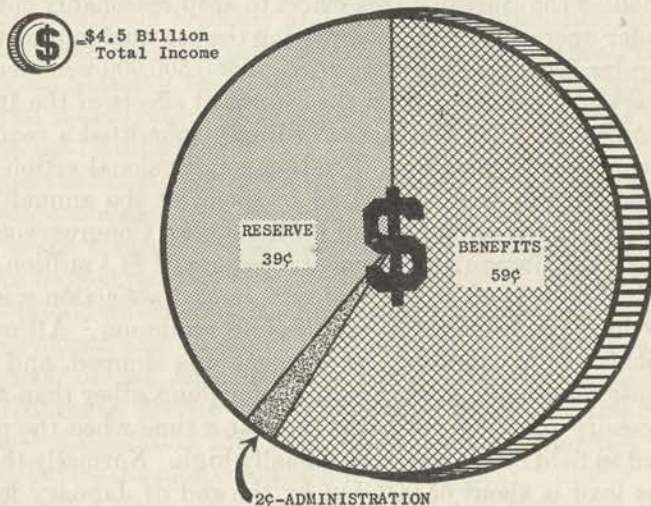
tional 7 percent were covered by retirement systems of Federal, State, and local governments. About 13 percent of the Nation's gainful workers—most of them farmers, self-employed professional people, or farm or domestic workers who are not regularly employed by a single employer—have no coverage under any public program. Members of the Armed Forces are not covered by old-age and survivors insurance, but Congress has enacted legislation granting wage credits of \$160 for each month of active military service during the period after September 15, 1940, and before July 1, 1955.

CONTRIBUTIONS AND DISBURSEMENTS

Benefit payments during the fiscal year amounted to \$2,627 million; with administrative expenses of \$89 million, the total outgo amounted to \$2,717 million. Contributions totaled \$4,097 million, and interest received on investments was \$387 million, bringing total receipts to \$4,483 million. The difference of \$1,766 million represents the increase in the trust fund during the year. At the end of June 1953, the fund totaled \$18.4 billion held and invested for the benefit of the contributors to the program.

Chart 4.—THE OLD-AGE AND SURVIVORS INSURANCE DOLLAR

Distribution of income to the trust fund, fiscal year 1953



On June 30, all assets of the fund, except \$549 million held in cash, were invested in United States Government securities as required by law; \$2.3 billion was invested in public issues (identical with similar bonds owned by private investors), and \$15.5 billion was invested in special certificates of indebtedness bearing interest at the average rate paid on the total interest-bearing Federal debt at the time they are

issued. The average interest rate on all investments of the trust fund at the end of the fiscal year was about 2.4 percent.

ADMINISTERING THE PROGRAM

Although the budget for the fiscal year 1953 was curtailed, the workload of the Bureau of Old-Age and Survivors Insurance increased 17 percent over that in the fiscal year 1952; the claims load was at a level some 39 percent above the 1952 load. A sharp increase in the volume of claims received occurred immediately after July 1, 1952. Potential claimants who could have filed earlier had delayed filing until that date to take full advantage of the new computation formula provided by the 1950 amendments. July and August were crucial months. Peak weekly claims were very close to the record highs established in September 1950 immediately after the 1950 amendments were enacted.

Another critical situation developed when changes had to be made in the payment rate of approximately 4.6 million beneficiaries receiving monthly benefits, to put into effect the increases provided in the 1952 amendments. This had to be accomplished between July 18, when the amendments were enacted, and the date the benefit checks for September were issued. The work was completed on schedule by detailing personnel from other jobs, working overtime, and utilizing machine methods to the maximum. The systematic approach employed enabled the Bureau's area offices to keep reasonably current in their regular operations while completing the conversion to new rates.

The regular fiscal year appropriation of \$60,500,000 was insufficient for the workload resulting from the combined effects of the 1950 and 1952 amendments. The Bureau accordingly submitted a request for a supplemental appropriation. Pending congressional action on this request, the Bureau was authorized to spend at the annual rate of \$64.5 million. In the second half of the fiscal year, Congress voted only \$2 million of the Bureau's supplemental request of \$4.4 million. Since spending had been at an accelerated rate, immediate action was necessary to reduce expenditures to an absolute minimum. All overtime authorizations were cancelled, recruitment was stopped, and drastic curtailments were made in expenditures for items other than salaries.

The necessity for these cut-backs came at a time when the pending claims load in field offices was exceptionally high. Normally the pending claims load is about 65,000, but by the end of January it was at 143,700, and emergency measures were required to keep the backlog of work from increasing. By June 30, 1953, the pending claims load was reduced to 92,000. This reduction, however, was achieved only at some sacrifice of quality and service to the public, by the temporary elimination or curtailment of essential functions and expenditures, and through voluntary, unpaid overtime.

Administrative costs in the fiscal year 1953, including costs incurred by the Treasury Department for the collection of social security taxes, were approximately \$90 million, or 2.2 cents out of each dollar of contributions collected. Costs within the Department of Health, Education, and Welfare were approximately \$66 million, or 1.6 cents out of each dollar of contributions.

MANAGEMENT IMPROVEMENT ACTIONS

One of the noteworthy aspects of the Bureau's management improvement efforts during the year was the degree to which savings were the result of cooperative action with other agencies. For example, a plan was adopted by the General Services Administration and the Bureau to transfer a portion of the inactive claims records to the Federal Records Centers operated by the General Services Administration. The initial transfer of these records resulted in a saving of approximately \$100,000; an additional transfer to be completed in the coming year will save an estimated \$210,000; and annual savings are estimated at \$34,000 per year after 1955.

As a second example, methods were worked out with the Veterans Administration to use its files in developing old-age and survivors insurance claims filed by Philippine citizens, after a study had revealed that more than 90 percent of these claimants had already filed claims with the Veterans Administration. The use of these files not only permitted maximum economy and prevented duplication of work on the part of both the claimant and the Bureau, but also ensured greater accuracy by enabling the Bureau to use the results obtained by the substantial investigatory staff maintained by the Veterans Administration in the Philippines.

Perhaps the management improvement action of greatest potential scope was contained in a proposal made by the Internal Revenue Service of the Treasury Department to integrate old-age and survivors insurance wage reporting with annual reporting of withholding taxes. This proposal, which contains significant possibilities for savings to the Government and to employers, as well as improvements in the enforcement of tax legislation, is being carefully studied by the Internal Revenue Service and the Bureau of Old-Age and Survivors Insurance. Legislation changing certain provisions of law would be necessary before the plan could be put into effect.

The Bureau's wage record operation has also furnished additional areas for administrative simplifications and economies. Last year's report cited the plan for a new wage record certification procedure that would reduce to a minimum detailed checking of wage records back to 1936. This procedure was installed early in 1953 with excellent results. Recent analysis indicates that the procedure has reduced

by approximately 30 percent the cases where detailed checking of the wage record is necessary for information on earnings from 1936 to date.

Research into the use of electronics in the Bureau's wage record and statistical operations has been still another activity which is expected to yield large long-range savings. Possibilities of adaptation to the Bureau's needs of a device which will scan printed material electronically and will automatically prepare punch cards from such material are being vigorously explored. If such a device can be perfected and installed to take the place of manual punching operations, it will eliminate a significant portion of the costs now involved in processing reports of employee earnings. In addition, tests are being run on the Bureau of Census electronic machine to determine the feasibility of carrying on some of the Bureau of Old-Age and Survivors Insurance statistical operations by electronic methods. The Bureau is also exploring the longer-run possibilities of high speed "random access" files using electronic storage media. The development of such files would make it possible to carry on the major part of the Bureau's record operations with electronic rather than punch card equipment, with the possibility of annual savings running as high as several million dollars.

The development of personnel and the maximum use of their capacities continues as a major management objective. The grouping of positions into "job families" to facilitate the movement of employees among positions throughout the Bureau was cited in last year's report. During the 1953 fiscal year, additional job families were developed and this work was supplemented by the preparation of the first portion of a Job Information Handbook. This Handbook will contain detailed job information designed to acquaint Bureau employees with the facts about Bureau jobs so that they can make the most of career opportunities in the Bureau, with maximum contributions to the program.

The Senate Subcommittee on Federal Manpower Policies in its report on S. 3493, a bill to "provide greater economy in the use of manpower, money, and materials by the development of more effective methods for selecting supervisory personnel in the Government service," gave special commendation to one of the Bureau's divisions for its planned program for selecting supervisors.

Congress has appropriated funds to prepare for "construction of an office building and appurtenant facilities for the Bureau of Old-Age and Survivors Insurance, including equipment, acquisition of land (including donations thereof), and preparation of plans and specifications." At present the Bureau occupies more than 600,000 square feet of space, at an annual rental of over \$700,000 in nine scat-

tered buildings, seven in Baltimore and two in Pennsylvania. Construction of the new building will result in savings and improved efficiency through making possible the elimination of doubleshift operations, double-deck files, work transportation and communication difficulties, and costly work layouts forced by restrictive, widely separated and inadequate space.

ADMINISTRATIVE PLANNING FOR THE DISABILITY WAIVER-OF-PREMIUM PROVISION

The Social Security Amendments of 1952, enacted July 18, 1952, included a provision to preserve the old-age and survivors insurance rights of persons who become permanently and totally disabled before reaching retirement age. The provision stipulated that applications for disability determinations could not be accepted before July 1, 1953, and further that the amendment would cease to be in effect at the close of June 30, 1953. The statement of the Managers on the part of the House of Representatives contained the following explanation:

The action recommended by the conferees will permit appropriate steps to be taken for the working out of tentative agreements with the States for possible administration of these provisions. It is the intent of the conferees that hearings will be held on this entire matter early in 1953 and at that time the congressional committees will go into the administrative and other provisions. It is intended to obtain the views at that time of interested groups on the methods of obtaining evidence of disability, under what circumstances and by whom determinations should be made, and whether or not these provisions or any modification thereof should be enacted into permanent law.

Since Congress took no further action in this matter, the amendment expired at the close of the fiscal year.

The provisions of this amendment would have authorized the Federal Security Administrator to negotiate an agreement with each State, under which a State agency would determine whether or not individuals are under a disability as defined in the law and the date such disability began or ceased.

Before it became clear that the amendment would expire, the Social Security Administration was under the obligation to conduct preliminary explorations based on the possibility that hearings might be held on the provisions for entering into agreements with the States to make disability determinations. Accordingly, policies and methods for evaluating permanent and total disabilities were outlined which would be suitable for this type of program and acceptable to the States. Tentative standards were developed for measuring disability, as defined in the amendment, and methods for requesting and receiving decisions on claims were explored with several States. The Social Security Administration obtained the advice of technical consultants from a number of State agencies on the administrative problems that

would be involved in the type of Federal-State agreements called for under the terms of the tentative law. These consultants were experienced in administering one or another of the three types of State disability programs with which agreements might have been made: public assistance to the permanently and totally disabled, workmen's compensation, and vocational rehabilitation. A substantial body of standards and methods was produced and significant problem areas requiring possible legislative clarification were identified.

Improving the Program

While the basic characteristics of old-age and survivors insurance are sound, the program does have defects and gaps that need to be corrected. In order to ensure that proposals to correct these deficiencies would be carefully developed, a thorough and intensive review of the program was undertaken in the second half of the fiscal year. Much progress has already been made in the development of proposals for improving the program. The problem of what groups the program should cover, for example, was thoroughly explored, and specific legislative proposals for extending the coverage were presented to Congress shortly after the close of the fiscal year. Other problem areas are in process of exploration and legislative proposals in these areas are being developed.

COVERAGE

In the President's Message on the State of the Union, he recommended that "the provisions of the old-age and survivors insurance law should promptly be extended to cover millions of citizens who have been left out of the social security system." As a first step toward carrying out this recommendation, the Secretary of Health, Education, and Welfare appointed a group of consultants on social security. The group included persons with a wide variety of experience in the fields of banking, insurance, education, social work, farm and labor organizations and industry. Under the chairmanship of Reinhard A. Hohaus, Vice President and Chief Actuary of the Metropolitan Life Insurance Company, the group devoted the spring of 1953 to a careful consideration of various alternative proposals for extending old-age and survivors insurance coverage to additional groups of current workers. The recommendations of the group were contained in a report transmitted to the Secretary on June 24, 1953, and provisions to carry out the recommendations were subsequently embodied in proposed legislation.

Enactment of these recommendations would go a long way toward making old-age and survivors insurance a more effective retirement

program for all of the Nation's gainfully employed workers. The coverage of the program would be extended to some 10 million additional persons, who in the course of a year work in jobs not now covered, and an over-all improvement would be made in the method of computing benefits, which would have the result, among others, that individuals in the newly covered groups would be able to qualify for full benefits.

One of the largest groups which would be brought into old-age and survivors insurance is that of the Nation's farm operators. About 3 million self-employed farm operators with annual net incomes of \$400 and over would be covered by old-age and survivors insurance on essentially the same basis as most persons in urban self-employment are now covered.

Additional hired farm workers would also be brought into the program. Under present law a farm worker, to be covered, must be "regularly employed" by one employer and receive cash wages of \$50 or more in a calendar quarter from that employer. Under this provision, in general, a farm worker who has worked for one employer continuously for an entire calendar quarter is covered in succeeding quarters if he works full time for that employer on at least 60 days during the quarter and is paid at least \$50 in cash. Only about 15 percent of all hired farm workers and 70 percent of the persons whose major job is farm work meet these requirements. The recommendations would change this provision to a simple cash wage test; all hired farm workers who are paid \$50 in cash by an employer in a calendar quarter would be covered. Under this cash wage test, about 70 percent of all persons employed as hired farm workers during a year would be covered, including practically all whose major activity is farm work for hire.

Domestic workers in private homes also must meet a restrictive test of regularity of employment to be covered under present law. Only those household workers are covered who work for a single employer on each of 24 days during a calendar quarter and are paid at least \$50 in cash in the quarter. In general, a household worker must work regularly for an employer on at least 2 days a week to be covered. The day test is an unnecessary complication that excludes many workers from coverage and gives others coverage for part but not all of their domestic work. The test would be eliminated by the recommendations so that all domestic workers who are paid \$50 in cash by an employer in a calendar quarter would be covered. This provision would extend coverage to between 100,000 and 200,000 workers in addition to those covered under present law.

Another sizable group excluded from old-age and survivors insurance at present are the 500,000 or so self-employed people in certain

specified professions. It is recommended that coverage be extended to these persons on the same basis as that for the other nonfarm self-employed who are now covered.

On the basis of their study of the coverage provisions of old-age and survivors insurance the consultants also proposed the removal of limitations on the coverage of several comparatively small groups of workers, including internes in hospitals, certain employees in the fishing industry, and certain American seamen and airmen.

More than 4 million persons during the course of a year are employed in positions covered by retirement systems of State and local governments. Under the present law an employee in a position covered by a retirement system on the date when the group to which he belongs is brought into the old-age and survivors insurance program cannot be covered by that program.

Most retirement systems of State and local governments do not provide adequate survivor protection. Furthermore, since the systems were designed chiefly for the person whose career is spent under the system, those who leave the service before retirement usually lose their retirement protection. Persons who shift from other employment to State and local government employment are in much the same position because they often lose all or part of their protection under old-age and survivors insurance. Extension of old-age and survivors insurance to this employment would fill these gaps in present protection. The option of coverage under Federal-State agreements is recommended for employees in positions covered by State and local government retirement systems.

Special provisions of the present law permit coverage of lay employees of religious, educational, and similar nonprofit organizations at the option of the employees and the employing organization. Since the adoption of these provisions in 1950, it has become apparent that many church groups now want the opportunity of electing coverage for ministers on a similar basis. A change in the law to provide such opportunity is recommended. If these recommendations are enacted in the next session of Congress, approximately 90 percent of all paid civilian jobs will be covered by old-age and survivors insurance, either actually or, in the case of employment for nonprofit organizations or State and local governments, potentially. Of the 10 percent that would still remain excluded, roughly two-thirds would be those of persons in the employ of the Federal Government, including both civilian and military service. Thus old-age and survivors insurance would be established as the basic retirement protection for practically all except Federal employment.

The consultants on social security did not consider extension of coverage to Federal employees because that question is currently be-

ing studied by a Committee on Retirement Policy for Federal Personnel, established by Public Law 555, Eighty-second Congress, and consisting of the Secretary of the Treasury, the Secretary of Defense, the Chairman of the Board of Governors of the Federal Reserve System, the Director of the Bureau of the Budget, and the Chairman of the Civil Service Commission, with a Committee Chairman appointed by the President. This Committee is expected to report to Congress early in 1954. The Social Security Administration believes that extension of coverage to all Federal employees—both civilian and military—would improve the protection now afforded these employees.

Another matter under study during the year was that of the coordination of the railroad retirement program with old-age and survivors insurance. The Joint Congressional Committee on Railroad Retirement, created by S. Con. Res. 51 of the Eighty-second Congress, conducted a study of the railroad retirement program and its relation to old-age and survivors insurance, and completed its report early in 1953. In its report the Committee reviewed the positions of interested agencies and organizations and analyzed various factors relating to the matter, without making any recommendations, however. The Social Security Administration recognizes that, while the present coordination has improved the protection of railroad workers, it is somewhat complicated and might perhaps be improved.

THE RETIREMENT TEST

Old-age and survivors insurance benefits are intended primarily as a partial replacement of earnings which are lost when a worker retires or dies. In general, therefore, monthly benefits are not payable to otherwise eligible persons who are engaged in work covered by the program. The only exception to this provision is for beneficiaries aged 75 and over, relatively few of whom continue in regular employment. Their benefits are payable without regard to the amount of covered work they do.

Basically, the principle of the retirement test is sound, and it is important that such a test be retained in the program. If there were no retirement test, benefits would be payable not only to those who had retired, but also to those older workers who are still employed and who have no loss of earnings. The additional benefits that would be paid out to employed workers and their dependents would add substantially to the cost of the system, and would not increase the security of those beneficiaries unable to work or unable to find employment. About 1.9 million beneficiaries would be immediately added to the benefit rolls, and the cost of their benefits would amount to \$1.4 billion for the fiscal year 1954 alone. Over the long run, total money expenditures for the program would rise by about 15 percent.

From surveys of old-age insurance beneficiaries conducted by the Bureau of Old-Age and Survivors Insurance, it seems clear that the retirement test is not a major factor in most people's decisions to retire from full-time jobs. These surveys have consistently shown that a great majority of beneficiaries retire either because they are in ill health or because they lose their jobs. Only about 5 percent retire voluntarily while still able to work. Among beneficiaries drawing benefits at a given time, a very large proportion are disabled. In the 1951 national survey of aged beneficiaries, almost two-thirds of the old-age insurance beneficiaries drawing benefits as retired workers at the end of the year reported themselves unable to work. Four-fifths of the aged widows who are beneficiaries said they could not work.

At the same time, the retirement test in its present form does not fulfill its function in an entirely satisfactory way. For example, the present monthly test for wage earners probably tends to some extent to discourage retired persons from engaging in part-time employment. Beneficiaries do not want to accept jobs paying somewhat more than \$75 a month if the amounts they would earn would not be as high as the benefits they would lose. Moreover, short-term or seasonal employment during the year can cause loss of benefits for some months even though the beneficiary is essentially in retirement status and his work earnings for the year are relatively low. In this respect the retirement test operates more satisfactorily for the self-employed than it does for the wage earner, since up to \$900 of self-employment earnings are allowed in the course of a year before benefit payments are suspended.

The present retirement test also has anomalous results in some situations. At the present time it applies only to earnings in work covered by the program, and not to earnings outside the coverage. This makes it possible for some persons to receive social security benefits in addition to full-time employment earnings by entering noncovered employment. This situation would to a large extent be automatically resolved by the extension of the program to cover most types of employment. But short of completely universal coverage, the problem will not disappear altogether. Another anomaly in the retirement test is that some persons enjoy a "double exemption" of their work earnings—one for wage earnings and one for self-employment earnings. A person who has both wage earnings and self-employment income may earn up to \$900 a year from self-employment income *and* up to \$75 a month in wages without the loss of any benefits.

The Social Security Administration believes that the retirement test can and should be redesigned so as to remove anomalies and reinforce incentives to productive work. Methods of accomplishing this are now under study.

BENEFIT AMOUNTS

Similarly, the basic question of whether the benefit amounts provided under old-age and survivors insurance assure individuals and families an adequate measure of security needs to be carefully examined. Recommendations for program changes already made will result in increasing benefit amounts payable in many cases in the future. The extension of coverage, in addition to enabling many people to qualify for benefits who could not otherwise have done so, will also result in the payment of higher benefits to individuals whose working life is split between employment covered at present and that recommended for coverage.

Another provision, recommended in connection with the proposal for extension of coverage, will also increase benefits payable in the future. This recommended provision would permit the omission of the three or four years of lowest or no earnings—depending on the date of coverage extension—from the computation of the individual's average monthly wage under the program. This amendment is designed to remove the handicap in benefit computation which newly covered workers would otherwise suffer because of their late entrance into the system. Equally important, however, it will give to those already covered the advantage of some future protection against the lowering of the average monthly wage because of periods of unemployment, disability or low earnings.

Thus the measures already recommended for improving the program would increase its effectiveness in terms of benefits payable. The recommended extension of coverage, in particular, would in the long run greatly improve the effectiveness of the program in rural areas and thereby reduce the need for public assistance. Further evaluation of the benefit provisions is necessary, however. Study must be given to such questions as what income from other sources and savings aged individuals and survivor families may be expected to have; and what levels of benefits must therefore be paid under old-age and survivors insurance so that retired workers and families that have lost the earner through death will not need to apply for public assistance to supplement the insurance benefits. Analysis is also needed of the results of the present benefit provisions, including the benefit formula, the maximum on annual creditable wages, and the method of computing the average monthly wage.

Continuing study is being devoted to these problems, as well as to other aspects of the program. In a dynamic economy such as ours no social insurance program can be expected to maintain a reasonable relationship to the economy of the Nation without constant study, review, and change.

FINANCING THE PROGRAM

Congress has made clear its intent that the old-age and survivors insurance program be self-supporting, and has set the contribution rates of the program at levels calculated to attain that objective. Congressional committees, however, in determining the contribution rates, have recognized the difficulties involved in making exact predictions of the status and operations of the program that reach into the distant future. For example, the Committee on Ways and Means of the House of Representatives, in its report on H. R. 6000 dated August 22, 1949, page 31, stated:

... Your committee has recommended a tax schedule which it believes will make the system self-supporting (or in other words, actuarially sound) as nearly as can be foreseen under present circumstances. Future experience may differ from the estimates so that this tax schedule, at least in the distant future, may have to be modified slightly—either upward or downward. This may readily be determined by future Congresses after the revised program has been in operation a decade or two.

As economic and other conditions change it is essential that new cost estimates for the insurance program be prepared from time to time in order to take into account the latest operating experience and other newly available information. It is to be expected, of course, that any new estimate will differ somewhat from previous estimates.

Normally, several different estimates are prepared, combining different assumptions as to low and high employment, low and high cost factors, and various interest rates. No one of the estimates is considered to be the most probable for the long run. Each simply represents a reasonable set of assumptions tending in one direction or the other. The assumptions used are reviewed by an Actuarial Advisory Committee from outside of the Government. At present the members of the Committee are Reinhard A. Hohaus, Vice President and Chief Actuary, Metropolitan Life Insurance Company; Clarence A. Kulp, Professor of Insurance, University of Pennsylvania; Kermit Lang, Assistant Actuary, Equitable Life Insurance Company of Iowa; and W. R. Williamson, Consulting Actuary.

The result of preparing such a series of estimates is of course a range of possible costs, rather than a single figure. It is clearly impossible, however, to base a schedule of contribution rates on a range of possible costs. Congressional committees, in the past, therefore, in determining the contribution schedules, have adopted the practice of relating the contribution rates to the "intermediate" cost estimate based on the high employment assumptions. This "intermediate" estimate is merely the midpoint between the high and low cost estimates; it is not an attempt to predict the precise cost of the program and should not be regarded as such.

In the fiscal year 1953 the seventh set of actuarial estimates of the cost of the program was issued. These new estimates, based on recent

operating experience and current population data, show the cost of the program to be different from that shown in previous cost estimates. According to the last previous estimates made in 1952 (which were projected through the year 2000 and assumed to be level thereafter) the level-premium cost of the program as amended in 1952, on an intermediate cost basis, was 5.93 percent of covered payroll, which was very close to the level-premium equivalent of the graded contribution schedule. According to the new estimates, the level-premium cost of the program projected through the year 2000 on an intermediate basis is expected to be 6.09 percent; projected through the year 2050 it is expected to be 6.58 percent. Thus the new estimates show a higher cost than the last previous set of estimates.

It should be pointed out that, if somewhat different assumptions had been used in developing the estimates, different figures would have resulted. For example, assumption of a higher interest rate would show lower costs. The interest rate used in developing the level-premium cost figures indicated above was $2\frac{1}{4}$ percent; present interest rates are somewhat above this figure.

It should be remembered too, that there are a number of factors which could change the picture considerably—a further rise in interest rates, for example, or less improvement in mortality than has been assumed, or further increases in wage levels, any of which would result in lower costs. (It is worth noting that the experience in this country over the years has been that wage levels have risen, and the general view is that this trend will continue.)

Thus it must be emphasized that no single set of cost estimates is, or can be, "final." Experience over the last 15 years has been considerably more favorable than was anticipated in the cost estimates prepared when the system was established. Despite the fact that the program has been liberalized substantially since it was originally established, the cost of the program as a percentage of payroll for 1955, for example, is expected to be very close to, and perhaps somewhat below, the cost estimated for the year 1955 in the early days of the system.

Public Assistance

The number of persons receiving assistance continued to go down during the fiscal year, as it has since 1950. In June 1953, for the first time since the Social Security Act was passed, fewer people were receiving assistance than were receiving benefits under old-age and survivors insurance. For most children of incapacitated and separated parents, however, and for most disabled and blind persons, there is no insurance coverage, and public assistance is the primary support for needy persons in these groups.

Although more aged persons received insurance benefits than old-age assistance as early as 1951, the total number of recipients under all assistance programs at the beginning of 1953 still exceeded the total number of insurance beneficiaries by nearly a million. However, the continuing decline in the number of assistance recipients, coupled with a substantial increase in insurance beneficiaries, had reversed the position of the two programs by the end of the fiscal year 1953. The shift in programs for the aged was especially marked. In June 1953, 32 percent of the population aged 65 and over were drawing insurance benefits, and less than 20 percent of the aged were receiving assistance.

Thus, while old-age and survivors insurance is beginning to fulfill its long-term role as the basic income maintenance program, public assistance helps to provide a minimum level of living to needy persons who are not eligible for this social insurance program or whose insurance benefits and other resources are too low to meet their minimum needs. Today, more than 5 million persons, whose eligibility has been determined by State and local welfare agencies under the provisions of the States' own laws, are dependent on public assistance for the primary essentials of daily living.

As more retired persons and the dependents and survivors of insured workers become eligible for social insurance benefits, the proportion of persons receiving assistance because of disability, or because they are children deprived of parental care, has risen sharply. This shift in the composition of the assistance caseload emphasizes the need for further development of social services in public assistance agencies as well as the need for effective working relationships with other community agencies providing health and rehabilitative services. Federally, this shift of emphasis has been reflected this year in closer working relationships between the Bureau of Public Assistance and other programs of the Department, such as vocational rehabilitation, public health, and child welfare services, and also in more cooperative work with outside agencies, particularly national agencies carrying standard-setting responsibilities for institutions.

*Case Load and Expenditures*¹

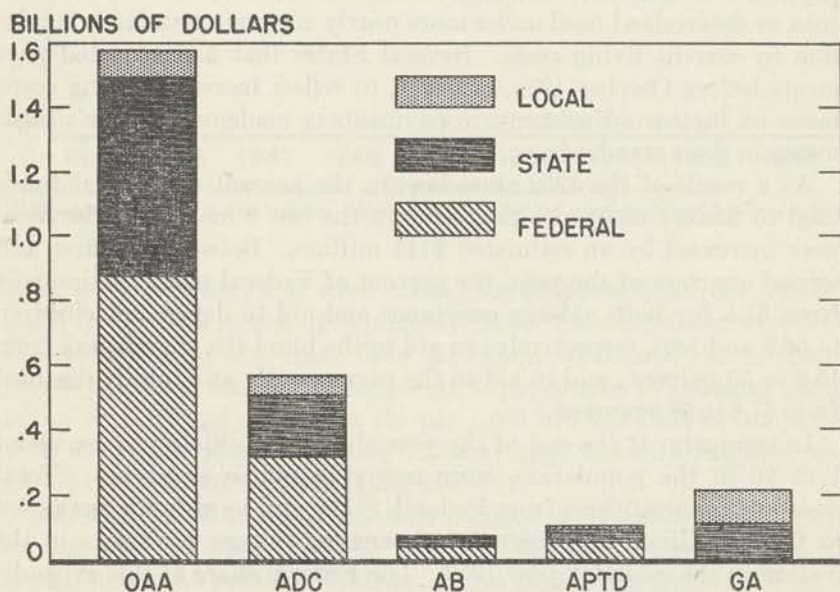
About 200,000 fewer persons received public assistance at the end of the 1953 fiscal year than a year earlier. From 5.5 million in June

¹ For old-age assistance, aid to dependent children, aid to the blind, and aid to the permanently and totally disabled, data on payments now include payments to the suppliers of medical care, and data on recipients include persons who received no money payment but on whose behalf vendor payments for medical care were made. In previous issues of the annual report, data on average payments included only cases receiving money payments and the amount of such payments. Data for earlier years have been adjusted for comparison with 1953 data. For general assistance the data continue to exclude vendor payments for medical care and the number of persons on whose behalf only such payments are made.

1952, including those receiving general assistance, the total number declined to 5.3 million in June 1953. This represented a drop of about 3½ percent during the year, and a total reduction since June 1950 of about 14 percent. High levels of employment and the increase in the number of old-age and survivors insurance beneficiaries continued to be the primary factors contributing to the decline in caseloads, though more restrictive eligibility provisions in some States were also a factor.

The 1952 amendments to the Social Security Act, which made additional funds available to the States for public assistance, and the continued efforts of States to meet need on a more nearly adequate basis account in large measure for a 5.4 percent increase in total expendi-

Chart 5.—HOW ASSISTANCE PAYMENTS ARE FINANCED ¹



¹ Payments in the fiscal year 1953 for old-age assistance, aid to dependent children, aid to the blind, aid to the permanently and totally disabled, and general assistance.

tures for assistance payments during the fiscal year 1953. An increase of \$130.2 million raised total Federal, State, and local expenditures from \$2,392.6 million in 1952 to \$2,522.8 million in 1953.

Effective October 1952, the amendments raised the maximums on the amounts of individual payments in which the Federal Government can participate and increased the Federal share within these maximums. Increases in monthly payments of \$5 per recipient under old-age assistance, aid to the blind, and aid to the permanently and totally disabled and \$3 per recipient under aid to dependent children were possible in States that continued to spend as much per recipient from State and local funds as they had spent in the preceding month.

Since October 1, 1952, for old-age assistance, aid to the blind, and aid to the disabled, Federal funds pay four-fifths of the first \$25 (raised from three-fourths of the first \$20) of the average monthly assistance payment per recipient, plus half the balance of all expenditures up to \$55 a month for individual payments (raised from \$50). For aid to dependent children, Federal funds pay four-fifths of the first \$15 (raised from three-fourths of the first \$12) of the average monthly payment per recipient, plus half the balance up to \$30 for the needy adult caretaker, \$30 for the first child, and \$21 for each additional child (raised from \$27, \$27, and \$18, respectively).

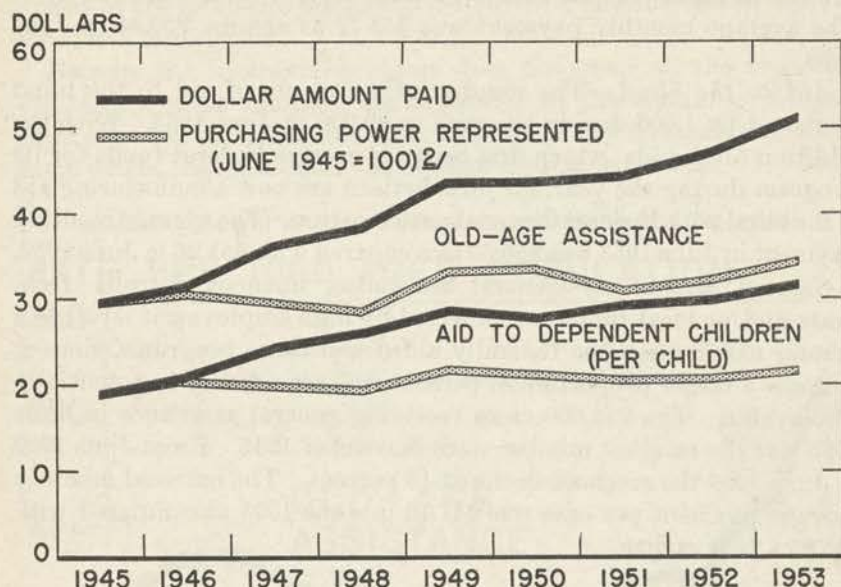
With the additional Federal funds and the general decline in case-loads, some States with maximums on assistance payments raised them; other States that had been making percentage reductions in payments because of insufficient funds reduced or eliminated these cuts, or determined need under more nearly adequate standards in relation to current living costs. Several States that had adjusted payments before October 1952, however, to reflect increased living costs, made no further adjustments in payments or made only minor adjustments in their standards.

As a result of the 1952 amendments, the amount of Federal funds used to finance assistance payments in the last 9 months of the fiscal year increased by an estimated \$144 million. Between the first and second quarters of the year, the percent of Federal participation rose from 51.5 for both old-age assistance and aid to dependent children to 56.9 and 58.3, respectively; in aid to the blind the change was from 45.6 to 50 percent; and in aid to the permanently and totally disabled from 47.8 to 52.9 percent.

In summary, at the end of the year about 5.3 million persons, about 1 in 30 in the population, were receiving public assistance. Total assistance expenditures from Federal, State, and local funds amounted to \$2,523 million, or 1 percent of personal income payments in the Nation in the calendar year 1952. The Federal share of this expenditure was \$1,278 million.

The aggregate cost of public assistance appears high, yet many individuals dependent upon public assistance payments are existing on a level of living far below a reasonable standard of decency and health. The large numbers of persons dependent on public assistance, in spite of general prosperity, are mainly those groups unable to take advantage of employment opportunities—the aged, the disabled, the blind, and young children. Moreover, the two largest of these groups that are most likely to be dependent—the aged and young children—are increasing more rapidly than the total population.

Old-age assistance.—The 2,609,000 aged persons receiving assistance in June 1953 represented a decrease of 2.3 percent from the number in

Chart 6.—PURCHASING POWER OF ASSISTANCE PAYMENTS TO THE AGED AND CHILDREN¹

¹ Beginning June 1951 includes payments to suppliers of medical care to recipients.

² Based on Bureau of Labor Statistics consumers' price index for moderate-income families in large cities.

June a year earlier, and were about 201,000 fewer than the number aided in the peak month of September 1950. The caseload in 44 States decreased during the year. For all States combined, the recipient rate—that is the number of recipients in proportion to the total population aged 65 and over—was 191 per 1,000 in June 1953 as compared with 202 in the preceding June. The average monthly payment was \$51.08 as compared with \$47.11 in June 1952.

Aid to dependent children.—The number of families receiving aid to dependent children in June 1953 was 564,000. These families included about 1.5 million children, or less than 3 percent of the child population. This was the lowest number of children aided since September 1949 and 92,000 fewer than in the peak month of October 1950. The recipient rate for all States was 28 per 1,000 children in the population under 18 years. In 35 States, the number of families also decreased. The average monthly payment per family in June 1953 was \$83.98 (or \$23.69 per person) as compared with \$77.32 per family (or \$22.36 per person) in June 1952.

Aid to the permanently and totally disabled.—The still relatively new program for aid to the permanently and totally disabled continued to grow. Georgia was added to the States receiving Federal funds for this program. The total number of recipients in the 39 States now administering programs with Federal financial participation was

179,000 in June 1953, as compared with 148,000 in 38 States in 1952. The average monthly payment was \$53.72 as against \$50.34 in June 1952.

Aid to the blind.—The number of recipients of aid to the blind increased by 1,000 during the year to 99,000 in June 1953. With the addition of Nevada, which first began to receive Federal funds for its program during the year, all jurisdictions are now administering aid to the blind with Federal financial participation. The average monthly payment in June 1953 was \$55.53 as compared with \$51.26 in June 1952.

General assistance.—General assistance, financed entirely from State and/or local funds, was affected by high employment levels to a greater extent than the federally aided assistance programs, since it includes a larger proportion of persons who are actually or potentially employable. The 255,000 cases receiving general assistance in June 1953 was the smallest number since November 1945. From June 1952 to June 1953 the caseload declined 13 percent. The national monthly average payment per case was \$47.16 in June 1953 as compared with \$45.95 a year earlier.

Effect of Old-Age and Survivors Insurance on Public Assistance

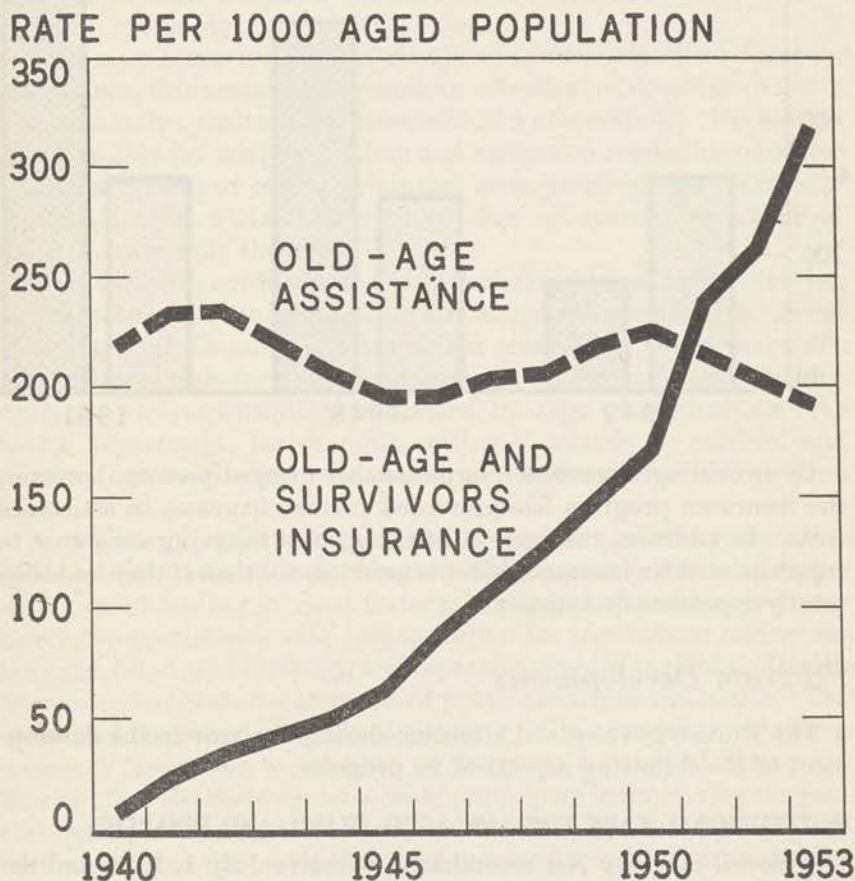
Despite the expansion of old-age and survivors insurance since September 1950, many people are still getting old-age assistance because some of the insurance benefits are not sufficient to meet minimum needs for those who have no other resources, or for those with unusual expenses, such as costly types of medical care. In February 1953 about 11 percent of the aged insurance beneficiaries received public assistance to supplement their benefits. They represented 16 percent of the old-age assistance caseload for that month. It is likely that, as the number of beneficiaries continues to increase, the number requiring supplementary assistance will also grow. This would be especially likely to happen if the cost of living remains high. Of all paternal orphans under age 18 in the general population, about half—911,000 in June 1953—received survivor benefits under the insurance program. Nearly 6 percent of the families with children receiving insurance benefits also received supplementary assistance. They represented 5 percent of the families receiving aid to dependent children.

The death of the father is the reason for dependency for about one-sixth of the children getting aid to dependent children, and at least one-third of these children are receiving survivor benefits based on the wage record of the father. A few additional families may include a person getting insurance benefits—for example, an aged retired father. The other families receiving aid to dependent children—about five-

sixths of the total—do not include any person eligible for old-age and survivors insurance.

Because the insurance program does not cover all the risks that create dependent families, the expansion of the insurance program does not tend to reduce the aid to dependent children caseload to the same extent that it reduces the old-age assistance caseload. Likewise,

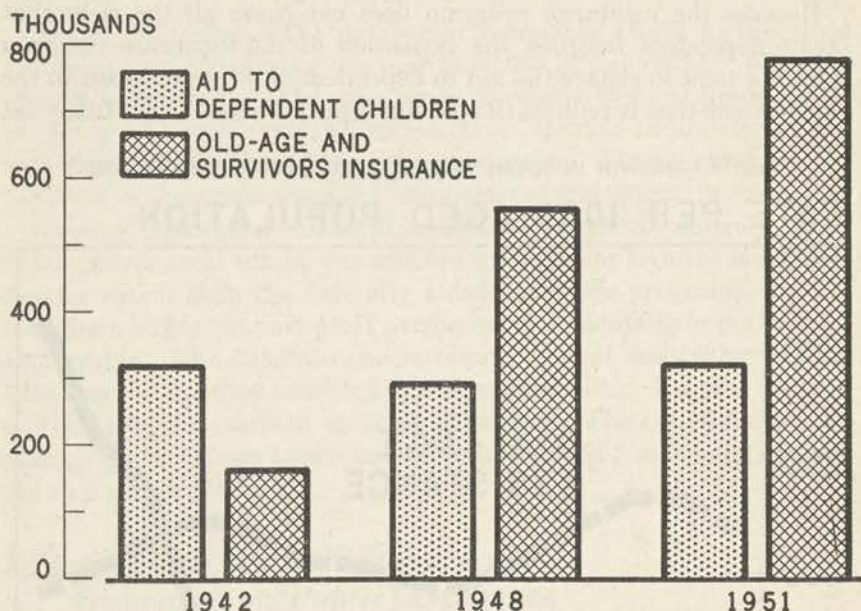
Chart 7.—GROWTH IN SOCIAL INSURANCE PROTECTION FOR THE AGED ¹



¹ Average monthly number of beneficiaries and recipients, by years, per 1,000 persons aged 65 and over in the population.

few recipients of aid to the permanently and totally disabled and aid to the blind are potentially eligible for insurance benefits. A special study of recipients of aid to the permanently and totally disabled made by 30 States in 1951 indicated that there were fewer than 400 insurance beneficiaries among 93,000 assistance cases. A report for September 1950 showed that 1,300 recipients of aid to the blind received both types of payments.

Chart 8.—GROWTH IN SOCIAL INSURANCE PROTECTION FOR ORPHANS
Number of orphans receiving benefits or assistance in a given month in each year



By providing income to a large number of aged persons, however, the insurance program has prevented further increases in assistance costs. In addition, the aged beneficiaries now receiving assistance to supplement their insurance benefits need less aid than if they had been totally dependent on assistance.

Program Developments

The Bureau gave special attention during the year to the development of the following aspects of its program.

INSTITUTIONAL CARE FOR THE AGED, BLIND, AND DISABLED

A Social Security Act amendment, effective July 1, 1953, and designed to protect the health and safety of needy persons in institutions, provided an impetus for a Nation-wide movement to raise standards of institutional care.

Although public safeguards have long been established in many States for hospitals and institutions caring for children, comparable protection has not been given to aged and infirm adults in many institutions. Substandard institutions for adults exist in many parts of the country. In the past 4 years, for example, 184 aged persons in institutions in five different States were burned to death. Many others have

been subjected to inhumane care. Many public assistance recipients, because of their limited economic circumstances, live in substandard institutions.

The standard-setting amendment to the Social Security Act, enacted in 1950, was intended to assure adequate standards of care and protection against hazards threatening the health and safety of residents of institutions. It requires that a State that makes federally aided assistance payments available to needy aged, blind, and disabled persons in institutions must designate one or more authorities to establish and maintain standards in such institutions.

Since most States already had authorities that set standards for some institutions, this amendment meant an extension of coverage in many instances rather than the establishment of a new activity. Each State is responsible for adopting safety and sanitation regulations and for setting standards of care at levels that seem practical and realistic in that State. The Federal Government does not specify the content of the standards, only the scope.

Wide variation exists among States in the kind of authority carrying this responsibility for establishing and maintaining standards. Some have a special licensing and inspection authority. Others have one agency responsible for fire regulations, another for health, another for welfare. Or responsibility is divided by type of institutions—the health department, for example, setting standards for medical and nursing institutions and the welfare department for old people's homes.

An advisory committee helped the Bureau define and interpret its responsibilities under this amendment. This committee included representatives of leading national fraternal, religious, charitable, and commercial organizations with responsibility for institutions caring for the aged, blind, and disabled; and representatives of the Public Health Service and of State departments of public assistance and health. The committee suggested methods of assisting State agencies in obtaining necessary legislation to establish or designate a standard-setting authority; how the State agencies could participate in improving the general quality of institutional care; and how they could use the experience and secure the participation of private groups and others in the community interested in the development and maintenance of standards. The minutes of the advisory committee meetings were sent to all State public assistance agencies to keep them informed of current developments in this area. Representatives of some of the organizations included on the national advisory committee also served on similar advisory committees of State and local agencies administering the program.

Voluntary and public welfare agencies in all parts of the Nation have worked cooperatively in developing plans for carrying out this

amendment. The Bureau of Public Assistance has continued its work with the Public Health Service and Children's Bureau in planning for and evaluating developments under this amendment. The National Social Welfare Assembly's National Committee on Aging, and its subcommittee on standard setting for institutions, both of which included representatives of the Bureau, prepared several publications particularly helpful to people working in this field. The publications included a bibliography, a digest of State legislation on standard setting authorities, and pamphlets on "Standards of Care for Older People in Institutions" and "Methods for Establishing and Maintaining Standards in Homes for the Aged and Nursing Homes." The National Committee on Aging is also planning regional conferences at which regional and State staff of private and public agencies, as well as institution operators and others in the area concerned with standard-setting, can come together to plan ways for securing improved standards. The National Council of the Churches of Christ in the United States of America published an article supporting the standard-setting amendment, and the Bureau furnished the Council of State Governments with suggestions for State laws on this subject which were published, together with explanatory notes, in the document "Suggested State Legislation 1953."

The Bureau also has been helping the State agencies by interpreting the amendment as a guide to legislation, since most State legislatures were in the process of amending their laws during the year in order to meet the requirements of the Federal amendment by July 1, 1953. The majority of States were able to meet this requirement without difficulty. When problems were encountered, they were of three major types. The first was that of obtaining legislation to provide for complete coverage of all types of institutions in which assistance payments were currently being made. The second problem, occurring in States where legislation did not provide for the establishment of a standard-setting authority for all institutions, was to ensure that the present laws gave the authority to exclude payments to persons in institutions not covered by the standard-setting authority. The third problem was that of assuring that the authority was responsible not only for setting standards but also for maintaining them.

PUBLIC INSPECTION OF THE PUBLIC ASSISTANCE ROLLS

Since 1951, when a provision of the Revenue Act made it possible for States to permit public inspection of the names of persons receiving assistance under the federally aided programs, 28 States have passed legislation opening their public assistance lists for public inspection. Twenty of these States passed legislation this year.

The experience of most of the States has as yet been too limited to

evaluate the effectiveness of the measure in reducing the size of case-loads and the cost of assistance. Many interested individuals and groups, however, are making follow-up studies and analyzing the experience of individual States.

NOTICE TO LAW-ENFORCEMENT OFFICIALS

One of the 1950 amendments that became effective July 1, 1952, requires that law-enforcement officials be notified when children who have been deserted or abandoned by a parent are receiving aid to dependent children. The intent of this amendment was to reduce the cost of assistance by enlisting the cooperation of law-enforcement officials in obtaining support from the deserting parent.

About one-fourth of the cases receiving aid to dependent children in June 1952 were affected by this amendment—about 375,000 children in 160,000 families. Its full effect cannot be determined until sufficient time has elapsed for law-enforcement officials to take appropriate action on notices submitted to them. As an immediate result, about 5,000 families including about 9,000 children had their cases closed or their payments reduced because the remaining parent did not wish to have the notice sent. This represents a little more than 3 percent of the 160,000 cases affected by the amendment but less than 1 percent of the total aid to dependent children caseload in June 1952. As a result of these withdrawals the total reduction in payments was \$165,000 a month or about $\frac{1}{2}$ of 1 percent.

Of 97,000 parents who were brought to the attention of the law-enforcement officials in 34 States, one-third were known to be in the State and 18 percent were known to be in another State. Nothing was known of the whereabouts of the others—almost half of the total number. About 40 percent of the absent parents had been away for 5 years or more. A slightly higher proportion—45 percent—had been gone from 1 to 5 years. About 10 percent had been away from 3 months to a year. Only 2 percent had been absent for less than 3 months.

There appears to be little assurance that law-enforcement officials can take immediate action against absent parents whose whereabouts are unknown and those who are known to be outside the State. Two out of three absent parents are in these groups. Although most States have recently passed laws for uniform reciprocal enforcement of support, the effectiveness of this type of legislation in obtaining support from deserting parents has yet to be widely tested.

Some State agencies have reported that the development of working relationships with law-enforcement officials has given an opportunity for joint consideration of plans of action best suited to the individual family situation. More experience under the amendment and further study are needed, however, to evaluate the results.

AID TO THE PERMANENTLY AND TOTALLY DISABLED

By June 1953, 2¾ years after Federal grants were made available to States for aid to needy adults who are permanently and totally disabled by a physical or mental condition, 39 States were administering programs with Federal financial participation. Four other States had passed legislation permitting them to establish such programs. The number of recipients, 179,000, was 22 percent higher than a year earlier.

During the year, State agencies improved and strengthened their services to the disabled as they gained experience in working with the complex factors of "permanent" and "total" disability. Disability is usually not static and it affects each individual differently. It is not possible to determine disability in the same way as age or residence, for example. Determination of the eligibility factors of permanent and total disability need to be made by professionally competent persons acting cooperatively—doctors, social workers, and other technical staff as required. In most States, the technical staff operates as a review team. The team usually consists of a physician and professional social worker, and often includes a vocational rehabilitation counsellor or other representatives of the State rehabilitation agency who have had experience in evaluating the rehabilitation potentialities of disabled individuals. Consultants from related fields—psychology, psychiatry, employment counselling, and various medical specialties—may be called on when needed and available.

Changes in the program during the year indicate a trend toward an increasingly effective use of the team, progress in clarifying the kind of information needed for determining permanent and total disability, and a broadening of the scope of programs in States that initially restricted their programs to the completely helpless.

The Bureau's cooperative relationships with the Office of Vocational Rehabilitation that were established when the State programs began operation have been strengthened with increased advantage to both agencies. Joint planning has continued to emphasize the desirability of coordinating the services of these related State agencies in such a way as to strengthen the rehabilitation aspects of aid to the permanently and totally disabled and other public assistance programs. These cooperative efforts have also been reflected in professional consultation to State agencies and, when appropriate, in written interpretation of policy.

An example of this type of cooperative activity is presented by a conference held in Gearhart, Oregon, in December 1952. This conference, planned jointly by staff of the Bureau of Public Assistance, the Office of Vocational Rehabilitation, and the Public Health Service, was attended by representatives of county and State health, welfare,

and rehabilitation agencies in the States of Washington and Oregon, and by regional staff of the three Federal services. The discussion of specific cases at the conference demonstrated both weaknesses and strengths in program administration as well as in interagency relationships. It opened the way for better working agreements between agencies and focused attention on the needs of those whom the agencies were organized to serve.

Other conferences were held in Texas, Georgia, and Missouri. As a result of the meeting in Austin, the public assistance agency in Texas, which does not have a program of aid to the permanently and totally disabled, initiated a series of meetings between State vocational rehabilitation and public assistance personnel aimed at the provision of greater service to handicapped persons generally. The Kansas City conference focused on the medical and rehabilitative aspects of the aid to the disabled program and the responsibilities of the technical staff for findings and recommendations in these areas.

Emphasis on the rehabilitative aspects of the program is beginning to show concrete results in many States. For example, in one State the assistance agency, as a result of intensive cooperative work with the State rehabilitation and employment agencies, studied 1,080 cases involving handicapped persons. Through the combined agency services, 99 persons were placed in jobs and 33 are in training for employment. Only 149 were deemed definitely unrehabilitable; the rest are still under consideration. The Office of Vocational Rehabilitation reported that, of the 64,000 disabled persons under their programs who were returned to employment during the 1953 fiscal year, 11,000 to 12,000 persons had previously been receiving assistance. Gainful employment for these individuals means not only a reduction in assistance costs; it also means reestablishment of self-confidence and a better chance at living a useful and happy life.

SOCIAL WELFARE SERVICES TO PUBLIC ASSISTANCE RECIPIENTS

Economic need is frequently associated with the need for rehabilitative and other social services. The public assistance agency has not only a humanitarian interest but a financial stake in providing effective social services.

Many of the individuals receiving assistance show the results of neglected health and personal problems that sharply point up the need for services. The nature of some of these problems indicates that, if professional services had been available at the time of crisis, a great deal of individual and family breakdown might have been prevented. For example, it is estimated that in more than half of the families receiving aid the father has deserted or is not married to the mother or the parents are divorced or separated. A study of desertion in aid to

dependent children made in one State showed that nearly half the fathers deserted before the birth of the youngest child or before the youngest child was 1 year old, and that 90 percent of the fathers reported on had shown earlier evidences of instability that might have responded to family casework services or psychiatric help. Other State studies show the need for counselling and other services available at the time of crisis.

Similarly, many of the 179,000 disabled persons receiving aid to the permanently and totally disabled in June 1953 might have been helped to greater self-dependence if necessary rehabilitative services had been made available to them earlier. A study of the characteristics of disabled recipients in 1951 showed that most of them had had their major impairments for a relatively long time; for 40 percent, the impairment had occurred 10 years or more before the study was made. Fewer than 3 percent had impairments of less than a year's duration.

The evidence revealed from these and other studies made by State agencies and other interested groups indicates the need for strengthening the public assistance program to provide professional service within the scope of its responsibilities, as well as for community planning in the development and coordination of other services, private and public, so they can be made available to individuals at the time they are most needed. This is particularly true in the substantial number of localities where the public welfare department is the only organized social agency in the community.

The Bureau has long emphasized the need for development of public and private agency resources to augment the services available through public assistance agencies. A working group composed of staff from the Children's Bureau and the Bureau of Public Assistance was established to explore ways in which the two bureaus could help State agencies provide more effective services to families and children receiving aid to dependent children. The Bureau has continued its close working relationship with the Office of Vocational Rehabilitation and the Public Health Service and with other public and private agencies, in an effort to bring to public assistance recipients the best advice and skills that have characterized the work of other rehabilitation programs.

Staff limitations.—The Bureau has also been encouraging State agencies to devote the staff and the time necessary to provide social and medical services to enable needy people to become self-supporting or independent of the care of others to the greatest extent possible. Many problems must be solved, however, before this objective can be achieved. The lack of staff with sufficient technical qualifications is one of the most serious problems. A program that deals intimately with the lives of many people, including young children, mothers, the

aged, and the handicapped must be staffed with skilled professional workers if an effective job is to be done.

On the skill and judgment of some 30,000 staff members in State and local public welfare agencies, of whom 70 percent are caseworkers, rests the responsibility for dealing with more than 5 million persons dependent on public assistance, many of whom have serious personal problems. Yet most of these caseworkers have little professional training for their jobs.

The solution of this problem is also complicated by the inadequate salaries. The median salary of caseworkers, for example, was \$2,569 in 1950. Also, in many States the caseloads carried by these workers are quite high. Wide variation exists in the size of caseloads—workers in some States carrying two to three times as many cases, on the average, as those in other States. The volume of work carried by individual workers has a close relation to efficiency of operation, especially in the determination of need for assistance and the provision of necessary services.

Developments in helping recipients of public assistance become self-supporting.—Despite the serious obstacles of staff limitations, State and local public welfare agencies have exerted great effort to provide needed social services and to use effectively other community resources, especially those which provide medical care, vocational training, and family and child welfare services. Such resources are utilized to help recipients of assistance develop their capacities for independent living and self-support. In New York City and Chicago, for example, special staffs have been employed to provide consultation or give direct service to clients, and to aid caseworkers in utilizing agency and community resources. In addition to help in obtaining needed correction of physical defects, help is also given recipients in preparing for employment and in finding job openings. Many recipients are found to lack any marketable skills, and training has been arranged through facilities in the community or through training programs developed within the agency.

In Chicago the local agency has been working with mothers whose children are nearing the age when they will no longer need or be eligible for the assistance payments. The agency is also working with mothers who, because their children do not require their full-time care, are seeking opportunities to become financially independent. An excellent training program for work as nurses' aides and institutional helpers is available, and mothers have been helped to take advantage of this resource as well as other training and employment opportunities.

In New York City the public welfare agency has a training program for domestic service that is a cooperative activity in which the city board of education furnishes trained teachers and the welfare department supplies quarters, equipment, and administrative supervision.

In both cities the public welfare agencies use employment counselors to supplement services available through the regular public employment offices. The welfare agencies have found that many recipients have to learn how to utilize placement facilities.

Several States have been experimenting with the assignment of small caseloads to skilled workers who have time to provide intensive casework services. In Salt Lake City a professionally trained worker demonstrated successfully the human and financial savings that could be achieved through skilled work. In a California county a faculty member from a school of social work also demonstrated, in a small number of families, what could be done with intensive skilled service for the incapacitated father to help him regain self-confidence and again be able to work. The county is continuing work on this basis by special assignments to certain members of its regular staff. Florida has been conducting a similar demonstration of intensive casework service with a small caseload. In Louisiana an interesting and successful experiment was tried in preparing persons for employment who had previous mental illnesses, utilizing psychiatric, psychological, and social services in an integrated approach.

Illinois has also developed a selective program of summer employment for teen-age children in recipient families. The objective is not only to increase the family income and decrease the need for aid, but also to give the young people a desirable work experience that will be helpful in guiding later vocational choices.

The legislature in Kentucky authorized an annual appropriation of \$100,000 for the use of the State public assistance agency in the development of services in the aid to dependent children program. At the request of the State agency, Bureau staff have been working with the agency to develop the content of services in aid to dependent children, and to explore its implication for the State's total assistance program particularly in relation to organization, supervision, staff training, and use of advisory committees.

The various methods used in these experiments are not entirely new, but their increased application in public welfare administration demonstrates the possibilities that exist for conserving and increasing the Nation's human resources.

State agency planning for better trained staff.—Carrying out the provisions of the public assistance programs in a State calls for an understanding of laws and agency regulations, discriminating judgment in collecting and evaluating information, and a knowledge of medical and rehabilitation resources available to help needy persons. It also calls for skill in helping people to realize all their potential abilities for self-direction and self-support. In view of the fact that the education of 83 percent of the public assistance caseworkers included no professional preparation for social work, it is particularly

important that as much help as possible be given workers through training on the job. In 1952, 21 State agencies had a full-time person on their staff whose job it was to plan and carry out training activities; 36 agencies had a staff member who carried staff development responsibility along with responsibility for other activities.

To help meet the need for professionally trained workers, a number of States have plans for granting educational leave. Twenty-nine State agencies reported that they granted educational leave to 158 workers during the year ending August 31, 1952. In 23 of these agencies some payment along with the leave was made to 101 of the 158 workers.

There is convincing evidence that the cost of some types of dependency can be reduced by providing services and facilities. Skilled casework service, often in combination with medical, psychiatric, and vocational rehabilitation services, has proved successful in putting people back on a self-supporting basis. Even when self-support is impossible, expensive care in hospitals and institutions can often be avoided by providing services, friendly visitors, golden age clubs, visiting housekeeper and nursing services, and the like, which enable people to remain in their own homes.

Research to determine what combination of social services and other resources can contribute to the reduction of dependency has been limited. Further studies are needed to determine:

1. The amounts and kinds of training and the personality factors that public assistance workers need to have in order to give successful service.
2. What types of dependency problems will respond to casework service and what other services and resources are needed to supplement the services of public assistance workers.
3. What kinds of working conditions, size of caseloads, types of supervision, and administrative policies are desirable in order to make the best use of the skills of trained social workers.

Such research would promote efficient organization of public assistance services, economical staffing of welfare agencies, the planning of training for caseworkers in graduate schools of social work, and the development of on-the-job training programs.

Services provided by professionally trained workers might increase "administrative costs" but probably would ultimately lead to a reduction of assistance costs.

Program Operations

PUBLICATIONS AND STUDIES

Characteristics of State public assistance plans.—A new issue of "Characteristics of State Public Assistance Plans" was prepared and

published during the year. This publication, which has been issued by the Bureau from time to time since 1936, presents in chart form information on 15 selected substantive provisions of State programs. As a general source of information about State programs, it is of special use to State agencies, legislatures, research groups, educational institutions, voluntary social agencies, and business organizations.

Characteristics of recipients of old-age assistance.—The Bureau undertook, in cooperation with State agencies, a study of the requirements, incomes, resources, and other pertinent characteristics of recipients of old-age assistance. The study was made in response to the growing concern of many public and private groups and agencies about the welfare of aging persons and the need for current data about aged assistance recipients. Such information will be helpful administratively in evaluating the current program and in future planning. To make the study's findings also of maximum value to State agencies and other organizations and groups concerned with the aged, an advisory committee with representation from State public assistance administrators, State directors of research and statistics, home economists, and Federal agencies gave the Bureau advice and consultation on the content of the study. The Bureau of Old-Age and Survivors Insurance also participated in its planning to ensure as much comparability as possible with the national survey of old-age and survivors insurance beneficiaries, conducted in 1951.

Financial support of parents by adult children.—Work is nearing completion on a summary of support laws and of old-age assistance plan provisions on responsibility of adult children for aged parents with whom they do not share living arrangements. Policies frequently differ for children living in the State and those living outside. The types of provisions, used separately or in combination in the States, may be roughly classified in these three groups:

(1) Provisions that are intended to encourage contributions from children able to contribute, but that do not include any means of seeking to compel support from children who do not contribute voluntarily.

(2) Provisions that seek to compel support, by some type of court action initiated by the agency or by the recipient, from children who have been determined by the agency to be able to support, but whose expected contribution the agency is not under obligation to consider as a resource affecting the recipient's need unless or until the contribution is actually received.

(3) Provisions that take into account, in determining eligibility and the amount of the assistance payment, contributions that the agency determines the children are able to make, whether or not the contributions are actually received.

About half the States use income scales to determine whether the adult children are in a position to contribute and the amount of the contribution to be expected.

Most of the recent changes have been in the direction of tightening and making more explicit the plan provisions on responsibility of the adult children for the support of their parents.

TECHNICAL ASSISTANCE TO STATES

The legislatures of 49 jurisdictions were in session during the year, and many changes were made in State welfare laws as a result of the 1950 amendments to the Social Security Act. In response to requests from State agencies, Bureau staff advised on the development of proposed legislation and plan material. Technical assistance was also given State agencies in examining their policies for clarity, reviewing their procedures for workability, and providing suggestions for improving operating methods based on the experience of many States. At the request of specific States, consultation was also given on State-wide standards and policies governing resources, plans for obtaining medical care for public assistance recipients, the use of the medical-social team in aid to the permanently and totally disabled, statistical and research problems, staff development, and administrative procedures.

Procedural surveys conducted by the Bureau at the request of several State agencies have resulted in economies through the adoption of simplified and more effective administrative and fiscal procedures in some States. Recommended procedures and techniques in fiscal and administrative management were developed for use by State agencies, and consultation on organization and administrative management was provided to individual States, on request, and to groups of States through regional conferences.

In May a 5-day sampling clinic was held in Colorado for the primary purpose of increasing the knowledge and skills of State public assistance agency personnel in the effective use and interpretation of sampling techniques specifically applicable to administrative statistics and research in the public assistance program. Through the use of sampling techniques, States are able to develop basic information quickly and at relatively low cost. In all, 57 persons from the western half of the country participated in the sessions. A similar clinic for State public assistance agency personnel in the eastern half of the country is planned for the fiscal year 1954.

ADMINISTRATIVE REVIEW OF STATE AND LOCAL OPERATIONS

During the year, State-wide reviews, conducted on a sample basis, were utilized for the purpose of determining whether recipients were

eligible for the payments they receive. This form of review was carried out in nine States.

Other methods of review were also used to analyze special problems and requirements of the Social Security Act other than eligibility. Reviews relating to disability determinations in the aid to the disabled program and to the absence of fathers from the home in the aid to dependent children program were completed in six States. Reviews were carried out in 11 additional State agencies, making a total of 25 of the 53 jurisdictions in which State and local operations were studied during the year.

More than half the States carry on some type of planned review process. The Bureau continued to assist States, on request, in planning and strengthening these reviews.

OTHER PROGRAM DEVELOPMENTS

The Committee on Training and Personnel, which is an advisory committee to the Children's Bureau and the Bureau of Public Assistance, met in Washington on March 9 and 10, 1953. This Committee was established in 1936, at the request of representatives of schools of social work and national voluntary welfare agencies who felt the need for a medium of communication between their groups and the two Bureaus concerned with welfare services. The Committee has devoted its attention mainly to recommending standards of selection and training of welfare workers which would increase the efficiency and effectiveness of personnel in child welfare and public assistance programs.

The major recommendations of the Committee this year were that a national representative committee be created, outside the two Bureaus, to help bring about agreement on long-term minimum qualifications for professional and administrative staffs in public welfare, and that, as a part of such a program, a plan be developed for financing social work education for the public welfare services.

An advisory committee was established early in the year to advise the Bureau on its informational program. In addition, several internal organizational changes were made to give sharper functional focus to key aspects of the Bureau program and to assist the Bureau in carrying an increased workload with staff decreased during the year from 289 to 255 because of budget limitations.

Children's Bureau

The fiscal year 1953 continued to be a period of apprehension and uncertainty for many families and their children. The cost of living continued upward and more mothers went to work. Children's

agencies faced by increased costs were forced to cut back services. The upward trend in delinquency is continuing. More children who are seriously disturbed emotionally are coming to the attention of State agencies.

Happily the United States is rich in children. There are now about 50 million children under 18 years of age. Right now, as a Nation, we are growing young faster than we are growing old. During the period 1940-52, while the population 65 years of age and over increased 45 percent, the population under 5 years increased 63 percent. This has many implications for health, welfare, and education programs for children and youth.

The Bureau Continues Its Program

The Children's Bureau operates under two mandates. The first, to investigate and report "upon all matters pertaining to the welfare of children and child life among all classes of our people" comes from the 1912 act creating the Bureau. The second, the responsibility of making grants to States to extend and improve services for promoting the health and welfare of children, especially in rural areas and in areas of special need, is contained in the Social Security Act.

Since its personnel and budget are limited, the Bureau must be selective in what it does for children, focusing its efforts upon the greatest needs and in areas where its own contribution will multiply through help to public and private agencies.

RESEARCH

For more than 40 years the Bureau has been gathering facts about children and ways of caring for them. Because it has had to be selective, the main target of its investigations has been the plight of disadvantaged children: babies who die in infancy; children who are beyond the reach of good health services; infants born to unmarried mothers; children who have lost their parents or whose parents are unable to carry responsibility for them; juvenile delinquents; crippled and handicapped children.

The pressure on the Bureau for more and more facts has grown with the years. A multitude of questions and problems have come out of service programs—and these are becoming more difficult to answer as people become more sensitive to children's emotional needs.

ADMINISTRATION OF GRANTS UNDER THE SOCIAL SECURITY ACT

In fiscal 1953, grants payments totaling \$31.5 million were made to the States. A State's share in this money is worked out by various specified formulas intended to channel relatively larger sums to States with the largest rural child populations. Of the \$31.5 million paid

to States, \$13.3 million was for maternal and child health activities, \$11.8 million for the medical care of crippled children, and \$6.4 million for child welfare services.

To take full advantage of the Federal money for these services, each State must pay part of the costs of these services. States use some of the unmatched funds for maternal and child health and crippled children's services for projects and demonstrations that have special significance for the region in which the State is located and often for the whole Nation. Because of the broad provision in the Social Security Act, States have a great deal of leeway in planning for the use of these funds, and the programs vary widely from State to State. The total amounts of State and local funds made available are much greater than the Federal sums received.

COOPERATING WITH VOLUNTARY ORGANIZATIONS

An effective program of health and welfare services for children must rest upon the solid foundation of many people and many agencies working together. This report includes many examples of how State and local health and welfare departments and workers in child health and child welfare are cooperating with voluntary agencies.

The Bureau works closely with many national voluntary agencies in behalf of children. These organizations run the gamut from civic organizations, such as the General Federation of Women's Clubs and the American Legion, to professional organizations, such as the American Association of Social Workers and the American Academy of Pediatrics.

New Emphasis in 1953

Children in this country are on the whole making gains but some groups—juvenile delinquents, mentally retarded children, and children in migrant families—seem to be in special jeopardy. There are others, of course, but in 1953 the Bureau gave special attention to studying the situation affecting these groups.

JUVENILE DELINQUENTS

An estimated 350,000 boys and girls came to the attention of the juvenile courts of the country in 1951 because of delinquent behavior. For the courts reporting to the Children's Bureau, a 17 percent increase occurred in the number appearing before these courts between 1948 and 1951. Although figures for 1952 are not yet complete, those available show that the increase from 1951 will be around 10 percent. This increase is occurring in less densely populated areas as well as in big cities. The 1951 figures from courts serving jurisdictions of less than

100,000 show a 29 percent increase over the 1948 figures compared with the 17 percent for the country as a whole.

During the year a number of significant developments on a national basis occurred in activities relating to juvenile delinquency programs. The United States Senate authorized a Senate Committee to study the extent, character, and causes of juvenile delinquency and the adequacy of the existing provisions of law dealing with delinquents and youthful offenders.

A Special Juvenile Delinquency Project, financed by various foundations and others interested in the problem, was initiated in July 1952. The staff of this Project have cooperated with the Children's Bureau in its juvenile delinquency program. The Project's purpose is to focus public concern on the problems of juvenile delinquency and to stimulate action leading to the improvement of services for delinquent youth.

Early in the year the Project and the Bureau sponsored five meetings with representatives of about 90 national organizations to discuss the problem of juvenile delinquency and ways in which the organizations and their local affiliates might cooperate with the Bureau in a solution. The groups represented health and welfare agencies, educational organizations, and civic groups. One meeting was with representatives of the major national organizations directly concerned with controlling juvenile delinquency or with child welfare. These included the American Public Welfare Association; the Administrative Office of the United States Courts; the Bureau of Prisons, Department of Justice; Child Welfare League of America; International Association of Chiefs of Police; National Association of Training Schools and Juvenile Agencies; National Council of Juvenile Court Judges; National Midcentury Committee for Children and Youth; National Probation and Parole Association; and the Osborne Association. The Bureau of Public Assistance, the National Institute of Mental Health, and the Office of Education also participated.

The Project has worked with the Bureau in formulating a series of guides to practices in the treatment of delinquent children. These include recommended guides or standards for training schools, juvenile courts, police work with juveniles, and the training of personnel for work in the delinquency field. Specialists from many parts of the country have worked together on these guides. The Project also prepared a series of pamphlets on juvenile delinquency and made them available for publication by the Children's Bureau. These were planned particularly for use by national and local organizations and other groups in stimulating action and support for better services.

The National Probation and Parole Association has established an Advisory Council of Judges with a criminal courts section and a ju-

venile and domestic relations courts section. This Council will develop standards for these courts, foster a public education program, and work to improve probation and related services. A step toward the development of a single strong membership organization in the training school field occurred with the merger of the National Association of Training Schools and the National Conference of Juvenile Agencies.

The Louisiana Department of Public Welfare has made juvenile probation services available on a State-wide basis. The National Probation and Parole Association is studying juvenile delinquency in New Mexico and detention in California. In Texas and Oklahoma the child welfare divisions are assigning staff to the training schools for casework service. The Governor of Puerto Rico appointed a special commission to study juvenile delinquency.

Virtually all agencies serving delinquent children and youth are experiencing a sharply increased workload. The majority of training schools for delinquent youth are serving numbers in excess of normal capacity. Caseloads of probation and aftercare personnel have increased. Police officers require better training in their work with juveniles.

MENTALLY RETARDED CHILDREN

Each year the Bureau receives many requests for help with problems growing out of mental retardation in children. Bureau consultants on group care and training schools have been asked for consultation on the standards and plans for group care in institutions for mentally retarded children and youth. The Bureau's regional staff also have been receiving many requests for information and consultation from a variety of community groups planning for mentally retarded children.

Consultation is also requested on program planning, standards of care, and licensing of facilities for such retarded children. Many institutions, recognizing that custodial care is not sufficient, are re-evaluating their programs. Requests for consultation are received as to the best plans for treatment, training, and rehabilitation of children in the institution.

Many State training schools for delinquent youth, institutions for dependent, neglected, and emotionally disturbed children, have problems in planning for mentally retarded children committed to the institutions. They are asking about the possibility of using foster family or special group care for certain of them.

It is estimated that about 1 person per 100 is mentally defective and that about 750,000 children of school age are of very low intelligence. Educators are giving much attention to these children's needs but their problems go beyond schooling. The extension and improvement of health and welfare services for children are greatly needed.

Parents' groups in local communities are becoming more outspoken about what they want for mentally retarded children and are taking leadership in attempts to get better facilities, training, and treatment programs.

Grant-in-aid funds for child welfare services are being used for social services and foster care for mentally retarded children. Some workers paid from funds for child welfare services are giving help to families with mentally retarded children.

Although for some children and some families, institutional placement for the child seems the best solution, the emphasis is on keeping the child in his own family and community. Many more children could develop best at home if the community offered educational opportunities and help to the family and the child through casework and counseling services.

Institutions for the mentally retarded child cannot meet the present demands for institutionalization—particularly for young children and those in families with low or moderate incomes. Frequently all types of services—health, education, social welfare, and training—are inferior.

Welfare federations and community councils have established special committees to study the problem. State and local interagency committees have been established in a number of States. All these developments make mental retardation one of the crucial problems with which the Nation must deal.

CHILDREN IN MIGRANT FAMILIES

Children of migratory agricultural laborers have been the concern of the Children's Bureau for a long time. No group faces greater jeopardy.

The President's Commission and numerous surveys and studies have produced volumes of evidence on their low economic status, poor housing, and lack of educational opportunity, medical care, day care, recreation, etc. Many other children lack these things too but the migrant has the added disadvantage that nobody feels responsible for him. His is an "inter-State" problem.

As the stream of migrants moves each year from south to north following the ripening of the crops, it passes into and through one State after another. No one State feels that it can take the responsibility for the health, welfare, and education of the children. Somehow, States have to work out joint plans for sharing responsibility.

Through the Interdepartmental Committee on Children and Youth, the Bureau is already working closely with other Federal agencies concerned with the problems of migrants. States often call on regional representatives and special consultants in the Bureau for help with the problems of these children.

If efforts to improve the situation for these families are to be effective, not only must the several agencies involved within a community and a State work together, but States must learn to work together cooperatively. Spots where community action has been successful must be studied—and the benefit of this experience brought to other communities and other States.

State and local health and welfare departments, which have the basic organization to do the job, should take responsibility for administering health and welfare services for migrants. Migrants should not be set off from the rest of the population, but should participate in all community services as much as possible.

One of the basic handicaps in providing help for migrants is that the areas through which they move lack local health units or child welfare services or school facilities for the children during the school season. For this reason, States and communities must strengthen local health units, have child welfare workers in key places, and plan for adequate school facilities. Since both the parents and the older children in these families usually work, young children are often left on their own. A few States provide some day care service, but this type of care is sparse indeed.

Research

During 1952, as reported last year, the Bureau analyzed its past research, examined its present activities, and decided that its studies should focus (1) on children whose health and welfare are in jeopardy and (2) on the social, psychological, economic, and health conditions that put children in this position.

Within the broad scope of a projected research program, the Bureau had to decide where to start and what problems to choose for study now and in the near future. The following criteria for selection of subjects were determined upon:

The problem should be one that involves a large number of children or affects a small number seriously.

The problem should be of nationwide importance; findings from the study, even though a local one, should be widely applicable.

The problem should have implications for both health and welfare activities relating to children.

The investigation should call for the kinds of contacts, the access to data, or the coordination of the contributions of various organizations that a Federal agency is in a strategic position to secure.

The investigation should deal with some aspect of the work to which grants-in-aid are made by the Bureau.

The investigation should deal with a question not adequately studied by other organizations, governmental or private.

The Bureau decided to concentrate its research efforts on evaluating how well the child health and welfare programs and activities that are

supported by Federal, State, and local funds achieve their purposes and whether children, parents, and the public generally are well served by them.

Carrying on such evaluative studies is a huge and long-range task, involving many organizations and agencies. With its present small research staff, the Bureau can not undertake large-scale studies of its own, but it can arouse interest in others in this kind of study, promote common planning, coordinate the efforts of widely scattered research workers, and give a certain amount of consultative service. Certain parts of the evaluative job, especially the development of methodology, the Bureau can do.

The following evaluative studies were under way in the Bureau during 1953:

1. A review and analysis of evaluative studies in health, welfare, and other fields, and the preparation of a report on methods of conducting such investigations.
2. A pilot study, conducted in the metropolitan Washington area, to evaluate practices of social agencies with respect to the age at which they place infants for adoption.
3. A study to test several methods for determining a community's need for day care services.
4. An analysis of findings of a "vision-testing study," conducted by the Bureau in cooperation with several other agencies, to determine the relative effectiveness of various methods of screening school children for defective vision.
5. A review and analysis of studies evaluating the results of programs aimed at reducing delinquency.
6. A compilation of available information about the health and welfare of the children of migrant agricultural workers—to serve as a base for further evaluation of what is needed.

During the year, the Bureau collected and analyzed statistics on various health and welfare services for children, and gathered together and presented statistical data about adoptions and juvenile delinquency and various aspects of maternal and childhood mortality. The findings of some of these studies are presented in other sections of this report. Through the Clearinghouse for Research in Child Life, the Bureau also collects and publishes reports of continuing research projects so that investigators may know of other studies in their area of special interest.

The Bureau Works With the States

Because of its responsibility to study and observe and to keep abreast of current knowledge on matters relating to child health and welfare programs, the Bureau brings to State agencies a Nation-wide picture of children's programs and receives from them current information on their own programs.

THROUGH ITS ADVISORY AND CONSULTATION WORK

Many child health and welfare agencies turn to the Bureau for help and advice in planning for and strengthening their services. The Bureau receives many more requests for this help than its small staff can meet within the limitations of travel funds and staff time.

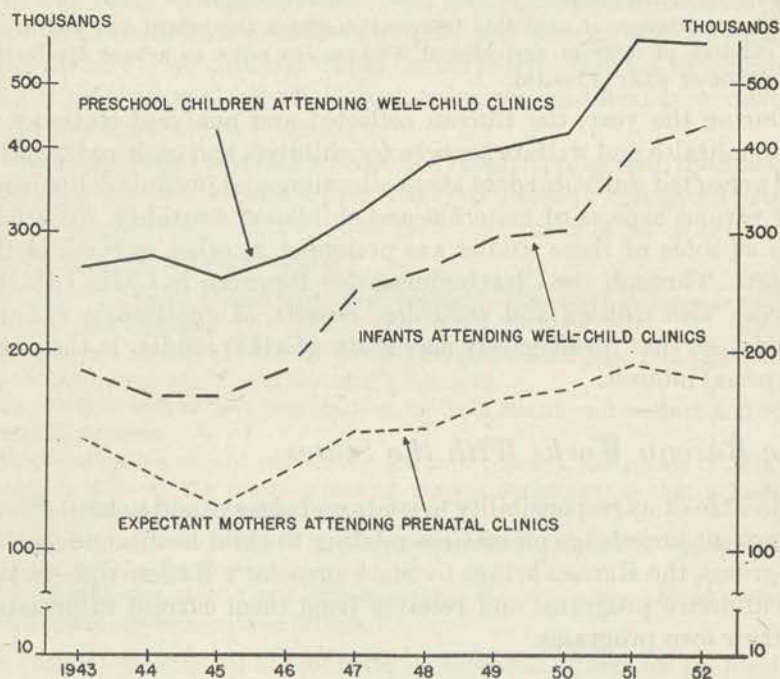
Field consultation is provided, at the request of State and local public and voluntary agencies and community groups, on the methods and techniques of providing services, administration and program planning, research and studies of the needs of children and the effectiveness of programs, staff development, training, professional education, State legislation, and community and public interpretation of the needs of children.

THROUGH GATHERING INFORMATION ON PROGRAMS

Reports from State agencies indicate a general upward trend in maternal and child health services since the end of World War II. Although there were decreases in several of the services provided in 1952, compared with the preceding year, most of the drops were slight. The principal decreases occurred in medical and nursing service for mothers and in nursing services for infants. Other health services continued on their upward course.

Chart 9.—MORE MOTHERS AND CHILDREN ARE GETTING HEALTH SERVICES

State and local maternal and child health programs, calendar years 1943-52



In 1952, 181,000 mothers attended prenatal clinics, 8,000 fewer than the peak year, 1951. Most medical services provided by State agencies to children reached their highest levels. Almost 436,000 infants, 8 percent more than in 1951, were brought to well-child clinics. Clinic service was provided for 578,000 other children below school age. In all, 258,000 women were given antepartum nursing service through 647,000 home and office visits. Nursing service in homes and in health departments was given to 688,000 infants and 749,000 children below school age, slightly fewer than in 1951; and to 2,533,000 school children.

Some 238,000 children are estimated to have received physicians' services in 1952 under State crippled children's programs, aided by Federal grants. The 4 percent increase from 1951 in the number of children served continues an upward trend begun in 1943. Hospital and convalescent home care accounted for a major portion of expenditures under the programs; 43,000 children received 1,360,000 days of in-patient care in hospitals, and 4,900 children had 473,000 days of care in convalescent homes—representing an average hospital stay of about a month and an average convalescent-home stay of a little over 3 months per child. In addition, 191,000 children received clinic service, an average of about two visits each. More than half of those served in 1952 had congenital malformations, diseases of the bones and organs of movement, or poliomyelitis.

Under the child welfare program in 1953, more than a quarter of a million children (260,000) were reported as receiving casework services from State and local departments of welfare in the 53 jurisdictions. In three States not reporting completely, an additional 24,000 children were probably receiving services. In the 50 States reporting completely for the final quarter of 1952, 41 percent of the children were living with parents or other relatives, 42 percent in foster family homes, and 17 percent in children's institutions or elsewhere.

Statistics for the fiscal year ending June 30, 1952, showed 4,866 State and local employees devoting full time to the public child welfare program, 5 percent more than during the preceding year. In the past 6 years, the number of full-time child welfare personnel increased 65 percent. Fifty percent (1,599) of the 3,187 counties of the United States are receiving service from full-time child welfare caseworkers assigned exclusively to one county or serving several counties.

The States Are at Work for Children

The grant-in-aid programs for maternal and child health, crippled children, and child welfare under the Social Security Act help the States carry out their objectives for children and the day-by-day pro-

grams for their care. They provide States with an opportunity to extend, improve, and strengthen their services to children.

MATERNAL AND CHILD HEALTH SERVICES

As infant mortality has declined and the leading causes of infant deaths have changed, States have increased their work for newborn infants, particularly those born prematurely. The majority of States during 1952 continued their assistance to hospitals in improving their facilities and services for the newborn by enabling nurses and physicians to secure additional training in the care of newborn and premature infants and through special studies.

Interest in the possibilities of preventing fetal deaths and premature births has increased. North Carolina, the District of Columbia, and West Virginia started studies of fetal wastage. During the past year, studies of infant deaths, limited almost exclusively to the neonatal group, made considerable progress. The Chicago health department made a report showing progress in preventing needless neonatal deaths during the last 14 years.

The University of Colorado Medical School has begun to code all available data on premature infants cared for in the premature center, a method that will make it possible to relate all aspects of prematurity and of premature care to illness, abnormalities, or complications of pregnancy occurring in the mother. The Colorado State Health Department and the University of Colorado are making a study in Leadville and Lake County on the effect that living at high altitudes has on the incidence of prematurity. A certificate of fetal death has been developed from which the State can get considerable information as to cause of death. Tulane University completed a study on the nursing care of premature infants.

Studies of infant mortality show that many counties in the Southwestern and Southeastern States still have high infant mortality rates. But such high rates are not limited to the South; even the Midwestern States with low average rates have counties with very high rates.

Of unusual interest is the study being made at the Harvard School of Public Health by Dr. Gerald Caplan, who is attempting to develop a method of screening mothers bringing their infants to the child health conference so as to identify those who have or may develop emotional problems in relation to their infants.

Of importance to the further development of school health services were the conferences held during the year by inter-agency State committees. For example, two inter-agency workshops were held in Oklahoma. A school health conference in Williamstown, Massachusetts, included representatives of the State education and health departments and the medical and dental associations.

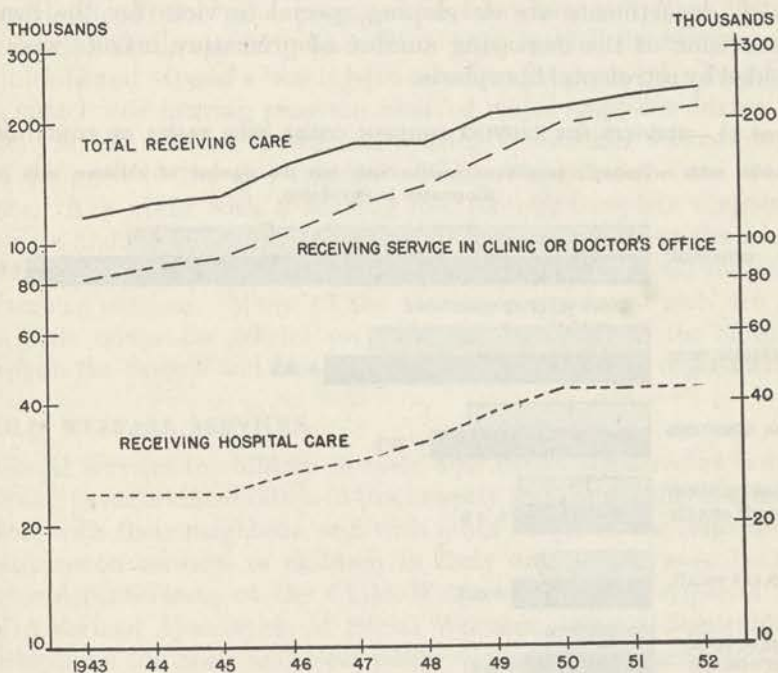
Despite problems of budgets and recruiting, State agencies have increased the size of their nutrition staffs somewhat even though fewer nutritionists are being trained each year than could be placed. About 200 nutritionists are employed by State health departments; 16 departments employ a full-time dietary consultant, and at least three employ more than one such worker. An encouraging trend has been the increase in the number of local health departments, chiefly in large metropolitan areas, that employ one or more nutritionists. They now number 35.

SERVICES FOR CRIPPLED CHILDREN

State crippled children's agencies are continuing to broaden their programs to include more kinds of handicapping conditions and are experimenting with new types of services.

Chart 10.—MORE CHILDREN ARE GETTING CRIPPLED CHILDREN'S SERVICES

State and local programs for crippled children, calendar years 1943-52



A notable example of this is the development of the regional congenital heart disease program to provide care for children with congenital heart disease in a center equipped to diagnose and treat children from neighboring States that do not have expert medical-surgical services of this type. The program now includes centers in Baltimore, Chicago, Dallas, and San Francisco. The great interest in

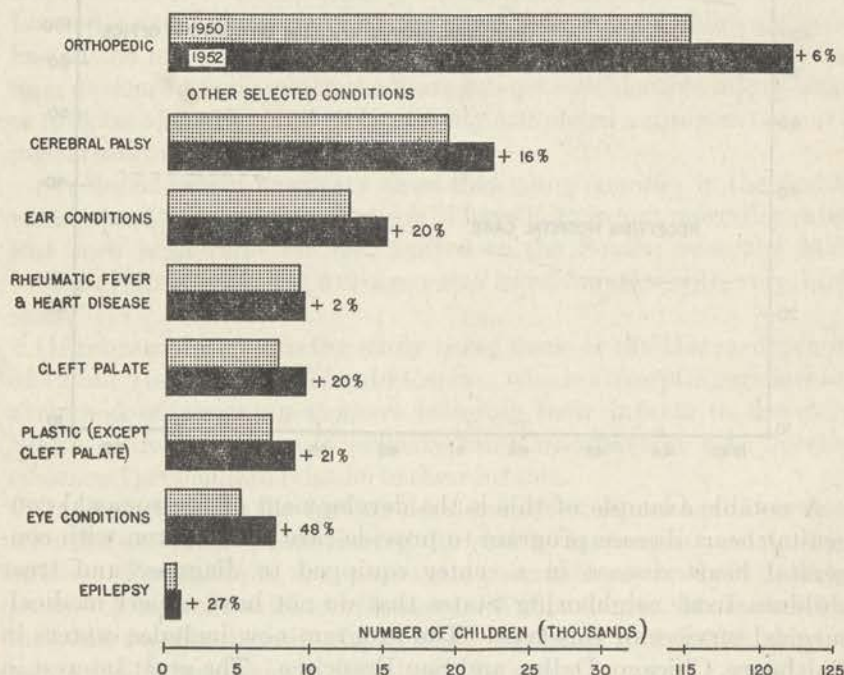
these developments has led to improved hospital facilities and staffs for these children in many States. The number of States including congenital heart disease in their crippled children's programs has also increased markedly.

One of the interesting developments in the past few years is the concept that the care of the child who has a cleft palate can best be carried out through the team approach. The special project at the University of Illinois has served to advance this concept. In New York two new centers were established, one in Buffalo, one in New York City. Through a joint project of the Alabama State crippled children's agency and the University of Alabama's dental school and speech department, a team is providing services to children in Alabama. Regular clinics attended by the plastic surgeons, dental specialists, faculty members from the University speech department, and staff members of the State agency are held to examine, evaluate, and plan treatment programs.

In the District of Columbia, North Carolina, and West Virginia, health departments are developing special services for the health supervision of the increasing number of premature infants who are blinded by retrolental fibroplasia.

Chart 11.—SERVICES FOR CRIPPLED CHILDREN COVER WIDE RANGE OF CONDITIONS

Children with orthopedic conditions predominate but the number of children with other diagnoses is increasing



More States are developing services for children who have congenital or acquired amputations. For example, 68 children found on Virginia's active list, for whom nothing had been done, are now receiving the necessary services. The following specialists are involved: orthopedist, pediatrician, surgeon, prosthetist (brace and prosthesis maker), occupational therapist, physical therapist, and engineer, if available. In Michigan, approximately 300 children received training in the use of artificial limbs under the amputee training program for crippled children.

In Colorado the State health department furnishes physical therapy equipment to rural hospitals and physical therapy treatment centers in local health departments. The local chapters of the National Society for Crippled Children and Adults, the hospitals, and the National Foundation for Infantile Paralysis underwrite the therapists' salaries; the State furnishes medical direction and physical therapy consultation.

Some expansion occurred in hearing conservation programs. Plans were developed for pilot programs in Louisiana and New Mexico. In South Dakota, special project funds have enabled the State agency to initiate and expand a hearing conservation program. In Tennessee the speech and hearing program received major emphasis during the year. A full staff of speech and hearing technicians was employed and assigned to the five crippled children's treatment areas in the State. Any child with a hearing loss receives complete diagnostic services and, if indicated, treatment to improve or arrest the condition. During 1952, 725 children received medical, surgical, and other treatment services. Many of the treatment services which are not available under the official program can be obtained for children through the Speech and Hearing Foundation, a private organization.

CHILD WELFARE SERVICES

Social services to children in their own homes are directed toward helping parents and children to live happily and responsibly with each other, with their neighbors, and with other people in the community. Institutes on services to children in their own homes were held at regional conferences of the Child Welfare League of America and the American Association of Social Workers. Special institutes or workgroups for State and local public welfare staffs were conducted in several States. A number of national organizations and State conferences of social work included this topic in their meetings.

Interest in protective services for children who are neglected or abused has continued, with some indication of a trend toward including them in a total program of services for children in their own homes. Institutes on protective services have been included in regional

conferences of both the Child Welfare League of America and the American Public Welfare Association. Representatives of the American Humane Association met again this year with representatives of the Children's Bureau, the Child Welfare League of America, and the National Probation and Parole Association.

The interest of both public and voluntary agencies in establishing homemaker service programs continues to increase. According to the latest information, 88 agencies in 66 cities provide homemaker service, 15 under public and the rest under voluntary auspices. Homemaker service programs receiving assistance from Federal child welfare services funds have continued in Colorado, North Carolina, and Hamilton County, Ohio.

The State public welfare agencies have continued their efforts to extend and strengthen services to unmarried mothers. Studies of such services were undertaken in Birmingham, Chicago, and Milwaukee, in Portland, Maine, and in Minnesota.

In many parts of the country, group care programs for children are moving away from the large isolated congregate institutions toward small apartment or cottage units with close access to community services. Four services, all given by trained staff, are emerging: individual casework for children and parents; constructive group life for children; clinical services; and remedial education services. Group homes, serving about 7 to 12 children, are being used on an experimental basis for special groups, such as dependent adolescents and emotionally disturbed children. Residential treatment centers for emotionally disturbed children are being developed in many communities. Subsidized foster family homes are used increasingly for emergency shelter care.

The latest statistics available to the Children's Bureau—those for 1951-52—show about 170,000 children in foster family homes supervised by child welfare agencies. About 125,000 of these were in boarding homes; 32,000 in adoptive homes; and 13,000, usually older youths, in free, work, or wage homes. Almost 70 percent of these children were receiving services from public agencies. Case reviews or studies in several States show the need for an evaluation of the quality of care provided in foster family homes.

About 80,000 adoption petitions, the Bureau estimated, were filed in the United States in 1951. This was more than double the estimated number filed in 1944. Some 48 percent of these children were adopted by nonrelated persons. In nearly half of these cases, the children were placed in the adoptive home independently, without the aid of a social agency.

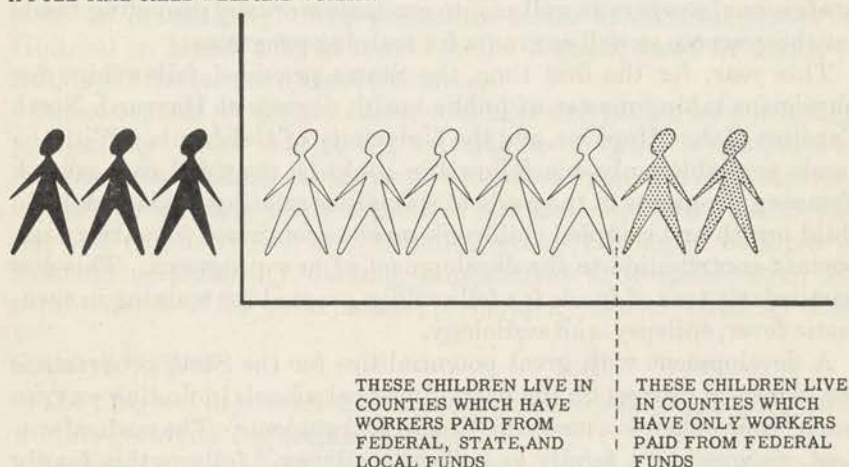
Most of the children adopted were young—the median age being 3.3 years; about two-fifths were under 2. In the independent placements

more than half of the children were less than a month old, which means that many were placed directly from the hospital or shortly thereafter. In contrast, only 11 percent of the children placed through agencies were under one month of age.

Half the adopted children are born out of wedlock. This group of children, most of whom are adopted by nonrelatives, are the ones most vulnerable to "black" or "gray" market practices.

Chart 12.—SOME CHILDREN DO NOT GET ADEQUATE CHILD WELFARE SERVICES

3 IN 10 CHILDREN LIVE IN COUNTIES
WHICH ARE WITHOUT THE SERVICES OF
A FULL-TIME CHILD WELFARE WORKER



Data for 1952

The gap between needs and resources for group care for special groups of children is of grave concern to planning bodies and parents seeking services for their children. At least a dozen metropolitan and county areas report unused institutional facilities for dependent children and lack of such facilities for physically, mentally and emotionally handicapped children, dependent adolescents, and children in minority groups. Additional day care facilities for children of employed mothers are still needed in various parts of the country.

The Bureau and the States Work Together in Training Workers

If services for children are to be of value, they must be manned by competent workers. But the demand for these workers far exceeds the supply. For this reason, States are investing a substantial part of their funds to increase the number of skilled workers through special-

ized courses in training centers, on-the-job staff development programs, work groups and institutes, and stipends for advanced training of staff members.

CHILD HEALTH

The increased demand for professional personnel in child health has speeded the development of training facilities for specialists in nursing, medical social work, physical therapy, and nutrition. During the year State agencies developed more opportunities for advanced training in special fields relating to the care of children. States also have recognized the importance of integrating better understanding of the emotional needs of the child into the basic training courses for professional workers as well as into graduate work, by providing funds for this purpose as well as grants for training programs.

This year, for the first time, the States provided fellowships for physicians taking master of public health degrees at Harvard, North Carolina, Johns Hopkins, and the University of California. With the funds available, only one fellowship could be provided each school. Training programs in the medical specialties relating to maternal and child health and crippled children's services continued to make an important contribution to the development of new programs. This was particularly true of funds for fellowships granted for training in rheumatic fever, epilepsy, and audiology.

A development with great potentialities for the State programs is the increased interest on the part of medical schools in finding ways to teach "comprehensive medicine" to medical students. The medical student, assigned to a family as a "health adviser," follows this family throughout his four years. Physicians and medical social workers work closely together in supervising these students through formal conferences, and classroom instruction. Prenatal clinics and well-baby clinics are the major sources of families in this plan.

The University of California School of Public Health has added faculty members in nutrition, medical social work, and nursing, completing the academic team for the course in maternal and child health. New schools of physical therapy have been opened at the University of Connecticut, the Charity Hospital, New Orleans, the University of Michigan, and Baylor University. Two of these offer 4-year degree courses; the other certificate courses.

Advanced programs for nurses in maternity and pediatrics are being integrated into an over-all program of maternal and child care, including the care of crippled children. Boston and Syracuse Universities are planning to employ nutritionists full time in their schools of nursing next year. Boston University and the University of Cincinnati have developed seminars, including a social worker, nutritionists, pediatrician, and child psychiatrist, where nursing students have an oppor-

tunity to participate in case discussions during their field work. An experiment in extended field practice in maternity nursing is being carried on at Johns Hopkins Hospital in cooperation with Teachers College, Columbia University. The Department of Maternal and Child Health at the Harvard School of Public Health gave a 2-week institute for nurses on child growth and development in November.

The New York Hospital Premature Infant Care Institute provides an outstanding course for physicians and nurses. The University of Colorado's 4-week course in prematurity for nurses offered during the winter and spring quarters had more applicants than could be handled and had to be repeated in May. The School of Medicine and the State health department conducted a 2½ day postgraduate course for physicians on prematurity. The premature center at Jackson Memorial Hospital in Miami offered nurses in the State 2 weeks of intensive training in the care of premature infants.

Short courses for physicians in obstetrics and pediatrics (including prematurity) were held at the universities of Iowa, Nebraska, and Kansas. State health departments sponsored numerous institutes and workshops covering many aspects of maternal and child health and crippled children's services, including group feeding of children in institutions, maternity nursing, implications of hospitalization for children, care of the polio patient, prematurity, school health services.

CHILD WELFARE

The program of educational leave for professional training for child welfare personnel has remained steady.

During the year the Children's Bureau and the Bureau of Public Assistance introduced to the States an annual reporting plan covering individuals granted educational leave by public welfare agencies. Reports from nearly all participating States show that more than 500 persons connected with the public child welfare program were on educational leave that terminated during the year ended August 31, 1952. The majority were taking their first year of graduate social work; some were completing their second year. Most of these persons received agency stipends from Federal child welfare services funds.

Steady progress has been made in expanding staff development programs for child welfare personnel. States vary in the programs offered, which range from some plan for staff development to well-defined, comprehensive programs with one or more staff development supervisors or consultants. The public welfare agencies continue to use work groups, institutes, attendance at conferences, and observational visits as media for staff development. Many of the institutes and workshops are open to personnel from voluntary agencies.

Joint activities between the public child welfare agencies and the schools of social work increased. Agency-school committees were es-

tablished to consider educational leave, selection of staff, development of teaching materials, and other topics. The Children's Bureau and the Child Welfare League of America are working together on a report on the content of child welfare material for use by schools of social work in planning the curriculum and for teaching purposes. Interest is growing in strengthening the criteria used in the selection of staff and developing, under the merit system, a selection process that includes the assessment of personal qualities. During the year, schools of social work developed a Nation-wide plan to establish a pool of interviewers for selection of students.

Training of personnel for work in the correctional field is receiving increased attention. During the year, the Bureau called together leaders in social work for a 2-day meeting to develop a program for such training.

Interdepartmental Committee on Children and Youth

The Interdepartmental Committee on Children and Youth has completed its fifth year of activity. This Committee is an advisory body with members from departments, agencies, and bureaus whose work relates to children and youth.

Since the Midcentury White House Conference on Children and Youth, the Interdepartmental Committee on Children and Youth has had a liaison relationship with the National Midcentury Committee for Children and Youth and its two Advisory Councils. The affairs of the National Midcentury Committee were wound up in 1953 and this link to the State committees and national organizations was gone. The Interdepartmental Committee worked out an agreement for a working relationship of "mutual assistance" with one of the advisory councils, the National Advisory Council on State and Local Action for Children and Youth.

A 2-day seminar on services to children of migratory agricultural workers held in November 1952 developed a plan of action focussed on preparation of materials useful to local communities. Among other areas considered by the Committee were juvenile delinquency, care of American and American-related children outside the United States, and research in the Federal Government on problems of child life.

The Bureau's International Activities

The international work of the Bureau is of three kinds, all of which were represented in the activities during the past year. They are (1) recruitment and assignment of child welfare and child health specialists for projects in other countries through the Department of State's Point Four program for technical assistance (now in the

Foreign Operations Administration); (2) planning for trainees coming from other countries to study child health and child welfare and for foreign visitors; and (3) work with the United Nations, the UN International Children's Emergency Fund, and the World Health Organization.

During the year, 15 professional people were working abroad, five in child welfare and 10 in maternal and child health. The maternal and child health workers included two physicians, six nurses, and two medical social workers. The Bureau provides these workers with technical advice and help on their programs, and the workers make technical reports to the Bureau.

One new development this year was recruiting and assigning a team of four specialists—a pediatrician, two nurse-midwives, and a pediatric nurse—for a maternal and child health demonstration and teaching project in rural Iraq which will provide training for physicians, nurses, nurse-aides, and midwives. In addition, a medical social worker went to Panama to develop medical social services in the Children's Hospital, and a child welfare worker went on a short-term assignment to El Salvador, to consult on children's institutions.

The Bureau also carried responsibility for programs of observation and study in this country for 67 long-term trainees and 264 short-term visitors. The long-term trainees came through the United Nations Secretariat, World Health Organization, Mutual Security Administration, Point Four, the leaders program of the Department of State, and private sources. Thirty-four of the long-term trainees were in the field of health; and 33 were in child welfare. They came from 30 countries.

The Chief of the Bureau serves under a Presidential appointment as representative of the United States on the Executive Board of the International Children's Emergency Fund.

Federal Credit Unions

Federal credit unions are voluntary, democratically controlled associations organized under provisions of the Federal Credit Union Act to "promote thrift among their members and create a source of credit for provident and productive purposes." Any group of 100 or more persons who have a community of interest based on common employment, membership in an association (such as a church or labor union), or residence may apply for a Federal credit union charter. If the group is found to be eligible, a charter is granted by the Bureau of Federal Credit Unions. The Bureau provides manuals and instructions for newly chartered Federal credit unions and examines and supervises them after they are established.

Each Federal credit union is operated by a group of officials elected by and from the membership; each is required by the terms of its charter to limit its thrift and loan services to the group specifically defined in its charter and bylaws.

At the end of June 1953, Federal credit unions were operating in every State and in the District of Columbia, Alaska, Hawaii, the Canal Zone, Puerto Rico, and the Virgin Islands. Of the 6,316 in operation, 5,251 were serving employee groups, 915 were serving associational groups, and 150 were serving residential groups. Their total assets amounted to \$753.1 million, of which \$502.9 million was outstanding in loans to 1.4 million members. The total potential membership of those in operation was 7.2 million and actual membership was 3.1 million. Average savings per member in Federal credit unions as of June 30, 1953, was \$221. Federal credit unions had average assets of \$119,238 and an average membership of 489 on that date.

During the fiscal year 1953 the number of operating Federal credit unions increased 654; their total assets increased \$184.0 million, and their membership increased 419,060. Growth in numbers of Federal credit unions, as well as in their activity in terms of thrift promotion and loans to members, has been particularly marked since 1948. Their assets have more than doubled in the past 3 years.

Program Operations

During the fiscal year 1952 the Bureau had a budgeted staff of 155 positions—21 departmental and 134 field; during the fiscal year 1953 it had a budgeted staff of 211—23 departmental and 188 field. The substantial increase in the field staff was made up primarily of examiners, whose number nearly doubled in the first half of the fiscal year. This increase was one step in the plan to make the Bureau self-supporting from fees collected from Federal credit unions.

In the period July through October 1952, when most of the new examiners were being trained, the number of examinations completed and examination fees collected were substantially below the average for the year. During the rest of the fiscal year, the number of examinations and revenue from this phase of the Bureau's program increased each month as the new examiners and the senior examiners who were their trainers got into full production. By the end of December, 2,458 examinations were completed as compared with 3,077 during the second half of the fiscal year. The total of 5,535 was the largest number of Federal credit unions examined in any year since the program started. Of this number, 102 were final examinations of Federal credit unions that had completed liquidation, and 69 were examinations made in cases of suspected or actual defalcations. Of

the Federal credit unions chartered prior to the end of 1952, 5,051 or 84 percent were examined in the 1953 fiscal year.

Examinations in cases of suspected or actual defalcations accounted for 1.2 percent of the total number of examinations made during the year, but the time devoted to them accounted for 8.2 percent of total field examiner time on examinations. In the preceding fiscal year, such examinations accounted for 1.7 percent of the total number of examinations and 10 percent of total examination time.

In the year ended June 30, 1953, 814 Federal credit union charters were approved. This was the largest number of new charters in any 12-month period since 1936; it has been exceeded only twice since the Federal Credit Union Act was passed in 1934—in 1935 with 828 and in 1936 with 956. The increase in the tempo of chartering Federal credit unions is attributed to the high level of economic activity in the country and to the Nation-wide advertising program sponsored and financed by the Credit Union National Association. Of the 814 charters granted in the fiscal year 1953, 680 resulted from applications prepared by volunteers and employees of State and national credit union organizations. The remaining 134 were issued on the basis of charter applications prepared with the direct assistance of Bureau personnel. Field examiners devoted approximately one percent of their official work time to the chartering phase of the Bureau's program during the year.

A particularly significant development in the administration of the Federal Credit Union Act culminated during the fiscal year. Through a series of increases in the examination fee schedule, beginning in April 1949, revenue from this source increased until it now covers approximately the total cost of the examination program. Before April 1949, each Federal credit union paid an examination fee of 25 cents per \$100 of assets or \$25.72 per examiner day, whichever was lower, with a minimum charge of \$2.50. Since July 1951, when the latest increase became effective, the fees paid have been computed at 50 cents per \$100 of assets or \$56 per examiner day, whichever is lower, with a minimum of \$5.00 per examination. The total revenue from the 5,535 examinations made during the fiscal year 1953 was \$861,990, as compared with \$556,736 received from 3,999 examinations during the preceding fiscal year. Revenue from the new annual supervision fee schedule, which became effective through an amendment of the Federal Credit Union Act in April 1952, amounted to \$200,128. Under the schedule previously in effect—an annual fee of \$10 per Federal credit unit regardless of size—revenue from this source would have been \$54,490. From charter fees the Bureau obtained \$20,775. Total fee revenue deposited during the fiscal year 1953 amounted to \$1,110,252, as compared with a total of \$644,294 in the fiscal year 1952.

In addition, the Bureau had an appropriation of \$200,000 to help finance its total operations. The Bureau's budget for the fiscal year 1954, however, contains no appropriation. Thus the plan to make the Bureau self-supporting from fees collected from Federal credit unions was accomplished in 4 years, between April 1949 and June 1953.

In the fiscal year 1954, the Bureau will have the use of a working-capital loan of \$250,000 from the United States Treasury. This loan must be repaid with interest over a period of 10 years beginning in the fiscal year 1956. The long-range budget planning for the Bureau contemplates the repayment of the loan and the building of a revolving working-fund reserve to replace the borrowed capital within the prescribed period. It is estimated that revenue from fees during the fiscal year 1954 will total \$1,373,555. This estimate is based on the assumption that the staff of field examiners will be increased and examination work will continue to be the major emphasis of the Bureau.

Strengthening Credit Unions

Federal credit unions have grown in size and numbers far beyond the most optimistic expectations of those who helped draft the law. At the end of June 1953, there were 285 Federal credit unions with assets in excess of \$500,000 each. In recent years it has become apparent that certain revisions should be made in the law so that larger Federal credit unions will have greater flexibility in their administrative operations. A comprehensive plan for revision will be preferable to a series of changes over a period of time. The determination of the provisions of the law which need to be revised, as well as the nature of changes best suited to the present-day needs of Federal credit unions, should be based on the consensus of credit union officials, representatives of the organized credit union movement, and members of the Bureau's staff. It is hoped that the exploratory and developmental work already under way can be completed within the near future.

Since central agencies to provide funds for credit unions in those cases where members' demand for loans exceeds available capital may be important to the future development of the credit union movement, the Bureau believes that every effort should be made to obtain evidence from all interested groups within the credit union movement as to the need for such agencies and the type of organizational structure that will most effectively serve the need.

For more than 10 years, the question of insuring members' shareholdings (savings) in their Federal credit unions has been discussed. During this period several bills designed to provide such insurance have been introduced in Congress. Two such bills were introduced

following the discovery of large defalcations in Federal credit unions, one in Pennsylvania during 1951 and one in Maryland during 1953.

Federal credit unions are now the only federally chartered institutions accepting savings or deposits that are not insured by a governmental instrumentality or otherwise guaranteed by the Federal government.

There is a difference of opinion among credit union leaders as to whether insurance of savings in credit unions would be desirable. The opponents of this type of insurance contend that insured credit unions would be required to adopt more restrictive loan policies; that chartering policies would be made more restrictive through the influence the insurance agency would exert on the agency that grants credit union charters; that insurance would be too expensive; and that insurance against losses would encourage credit union officials to be lax in carrying out their management responsibilities. Those who favor insurance contend that losses on loans and operations in the past would not warrant the imposition of unduly restrictive regulations and that the cost of the insurance would be more than offset by increased participation by members who would have more confidence in an insured credit union. The proponents also point out that the quality of management of insured banks and insured savings and loan associations has not declined in the nearly 20 years they have had insurance of deposits and savings accounts.

Table 1.—*Social Security Administration: Funds available and obligations incurred, fiscal years 1953 and 1952*¹

[In thousands; data as of June 30, 1953]

Item	Funds available ²		Obligations incurred	
	1953	1952	1953	1952
Total.....	\$1,435,928	\$1,245,841	\$1,434,457	\$1,267,017
Grants to States.....	1,368,600	1,181,500	1,367,571	1,202,886
Public assistance.....	1,340,000	1,150,000	1,338,989	1,171,387
Old-age assistance.....			903,241	801,137
Aid to the blind.....			33,017	29,205
Aid to dependent children.....	1,340,000	1,150,000	343,321	301,979
Aid to the permanently and totally disabled.....			59,410	39,066
Maternal and child health and welfare services.....	28,600	31,500	28,582	31,499
Maternal and child-health services.....	12,747	12,524	12,729	12,523
Services for crippled children.....	11,482	11,386	11,482	11,386
Child-welfare services.....	4,371	7,590	4,371	7,590
Administrative expenses ³	67,328	64,341	66,886	64,131
Office of the Commissioner ⁴	294	331	291	330
Bureau of Old-Age and Survivors Insurance ⁵	62,500	59,927	62,332	59,727
Bureau of Public Assistance.....	1,600	1,653	1,576	1,648
Children's Bureau ⁶	1,550	1,585	1,532	1,581
Bureau of Federal Credit Unions.....	1,384	845	1,155	845

¹ Funds available and obligations as reported by administrative agencies.² Funds made available by regular and supplemental appropriations, authorizations, transfers, allotments, recoveries, and fee collections for services rendered.³ Funds made available and obligations incurred for salaries, printing and binding, communications, traveling expenses, and reimbursement items for services rendered to other Government agencies.⁴ Appropriations by Congress from general revenues accounted for approximately 65 percent of the administrative expenses of the Office of the Commissioner in 1952, and approximately 63 percent of such expenses in 1953; balance from old-age and survivors insurance trust fund.⁵ For administration of the old-age and survivors insurance program which involved benefit payments of \$1,982,000,000 in 1952 and \$2,627,000,000 in 1953.⁶ Includes expenses for investigating and reporting on matters pertaining to the welfare of children authorized by the act of 1912, as well as expenses for administration of grants to States.

Table 2.—Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1951–53

[In millions]

Item	1953	1952	1951
Contributions collected under:			
Federal Insurance Contributions Act ¹	\$4,097	\$3,594	\$3,120
Federal Unemployment Tax Act ²	276	259	234
State unemployment insurance laws ^{3,4}	1,368	1,432	1,365
Old-age and survivors insurance trust fund:			
Receipts, total	4,483	3,932	3,411
Transfers and appropriations ⁵	4,097	3,598	3,124
Interest and profits on investments	387	334	278
Expenditures, total	2,717	2,067	1,569
Monthly benefits and lump-sum payments ⁶	2,627	1,982	1,498
Administration ⁷	89	85	70
Assets, end of year	18,366	16,600	14,736
State accounts in the unemployment trust fund:			
Receipts, total	1,555	1,606	1,510
Deposits ⁴	1,371	1,439	1,363
Interest	184	167	148
Withdrawal for benefit payments	913	1,000	848
Assets, end of year	8,563	7,920	7,314

¹ Contributions paid by employers and employees on wages up to and including \$3,000 a year through Dec. 31, 1950, and up to and including \$3,600 a year beginning Jan. 1, 1951: 1½ percent each. Contributions paid by the self-employed on income earned after Jan. 1, 1951, up to and including \$3,600 a year: 2¼ percent. Includes deposits by States under voluntary agreements for coverage of State and local employees beginning May 1951.

² Tax paid only by employers of 8 or more. Employers offset against this tax—up to 90 percent of the amount assessed—contributions which they have paid under State unemployment insurance laws or full amount they would have paid if they had not been allowed reduced contribution rates under State experience-rating provisions. Rate is 3 percent of first \$3,000 a year of wages paid to each employee by subject employer; because of credit offset, effective rate is 0.3 percent of such wages.

³ Contributions plus penalties and interest collected from employers and contributions from employees, reported by State agencies; corrected to Aug. 1953.

⁴ Contributions and deposits by States usually differ slightly, primarily because of time lag in making deposits.

⁵ Includes amounts collected under the Federal Insurance Contributions Act and transfers from the general fund of \$3,694,000 for fiscal year 1951, and \$3,734,000 for fiscal year 1952, to meet administrative and other cost of benefits payable to survivors of certain World War II veterans as defined in title II of the Social Security Act amendments of 1946; beginning May 1951, includes deposits by States under voluntary agreements for coverage of State and local employees.

⁶ Represents checks issued.

⁷ Data do not reflect actual expenses in the respective years because of bookkeeping adjustments.

Source: Compiled from *Daily Statement of the U. S. Treasury* and State agency reports.

Table 3.—Old-age and survivors insurance: Estimated number of families and beneficiaries in receipt of benefits and average monthly benefit in current-payment status, by family group, end of June 1953 and 1952

[In thousands, except for average benefit; data corrected to Nov. 12, 1953]

Family classification of beneficiaries in current-payment status	June 30, 1953			June 30, 1952		
	Number of families	Number of beneficiaries	Average monthly amount per family	Number of families	Number of beneficiaries	Average monthly amount per family
Total.....	4,009.1	5,573.6	-----	3,278.4	4,593.8	-----
Retired worker families.....	2,977.5	3,887.6	-----	2,372.3	3,109.8	-----
Worker only.....	2,137.7	2,137.7	\$48.20	1,691.4	1,691.4	\$40.10
Male.....	1,443.1	1,443.1	52.10	1,194.1	1,194.1	43.20
Female.....	694.6	694.6	40.10	497.3	497.3	32.80
Worker and wife aged 65 or over.....	781.6	1,563.2	83.60	633.5	1,267.0	70.10
Worker and wife under age 65 ¹	.6	1.2	93.50	.5	1.0	61.00
Worker and aged dependent husband.....	5.6	11.2	74.00	3.4	6.8	62.10
Worker and 1 child.....	7.8	15.6	75.30	7.5	15.0	62.00
Worker and 2 or more children.....	5.4	18.9	82.40	5.1	17.5	69.50
Worker, wife aged 65 or over, and 1 or more children.....	.9	2.9	98.10	.8	2.5	79.50
Worker, wife under age 65, and 1 child.....	24.4	73.2	92.80	19.5	58.5	77.40
Worker, wife under age 65 and 2 or more children.....	13.5	63.7	87.60	10.6	50.1	70.30
Survivor families.....	1,031.6	1,686.0	-----	906.1	1,484.0	-----
Aged widow.....	498.1	498.1	40.80	421.1	421.1	36.00
Aged dependent widower.....	.6	.6	33.90	.4	.4	30.00
Widowed mother only ¹	2.9	2.9	43.40	3.5	3.5	35.80
Widowed mother and 1 child.....	109.2	218.4	88.30	95.3	190.6	77.60
Widowed mother and 2 children.....	71.9	215.7	108.80	63.3	189.9	93.80
Widowed mother and 3 or more children.....	60.9	286.1	104.80	52.0	242.8	91.90
Divorced wife and 1 or more children.....	.2	.5	101.50	.2	.5	92.90
1 child only.....	160.3	160.3	41.80	152.9	152.9	36.10
2 children.....	64.4	128.8	71.30	57.8	115.6	61.20
3 children.....	22.7	68.1	86.90	20.3	60.9	78.10
4 or more children.....	19.5	84.0	90.90	20.2	85.2	80.70
1 aged dependent parent.....	19.3	19.3	42.00	17.6	17.6	36.80
2 aged dependent parents.....	1.6	3.2	81.40	1.5	3.0	71.50

¹ Benefits of children were being withheld.

Table 4.—Old-age and survivors insurance: Selected data on benefits, employers, workers, and taxable earnings, by State, for specified periods, 1951-53

[In thousands, except for average taxable earnings; data corrected to Sept. 29, 1953]

State	Monthly benefits in current-pay- ment status, end of fiscal year 1953 ¹		Payments certified, fiscal year 1953 ¹			Em- ployers report- ing tax- able wages, July- Sep- tember 1952 ²	Calendar year 1951		
	Num- ber	Amount	Total	Monthly benefits	Lump- sum pay- ments		Work- ers with tax- able earn- ings ³	Amount of taxable earnings ⁴	
								Total	Average per worker
Total.....	5, 573.6	\$232, 999	\$2, 748, 099	\$2, 671, 831	\$76, 268	3, 630	58, 000	\$120, 110, 000	\$2, 071
Alabama.....	82.0	2, 729	32, 560	31, 554	1, 006	50	870	1, 357, 000	1, 560
Alaska.....	2.9	109	1, 289	1, 247	42	3	60	113, 000	1, 883
Arizona.....	23.8	924	10, 932	10, 613	319	17	250	380, 000	1, 520
Arkansas.....	46.0	1, 497	17, 593	17, 135	458	30	500	621, 000	1, 242
California.....	454.3	19, 632	230, 886	224, 973	5, 913	283	4, 620	9, 694, 000	2, 098
Colorado.....	45.4	1, 803	21, 218	20, 671	547	36	540	850, 000	1, 574
Connecticut.....	98.0	4, 666	55, 019	53, 600	1, 419	57	1, 050	2, 383, 000	2, 270
Delaware.....	12.9	556	6, 585	6, 392	193	10	170	295, 000	1, 735
District of Colum- bia.....	20.9	868	10, 305	9, 962	343	27	510	871, 000	1, 708
Florida.....	131.0	5, 400	62, 908	61, 468	1, 440	81	1, 040	1, 508, 000	1, 450
Georgia.....	82.8	2, 715	32, 474	31, 334	1, 140	70	1, 210	1, 788, 000	1, 478
Hawaii.....	13.1	485	5, 684	5, 582	102	9	190	349, 000	1, 837
Idaho.....	17.5	641	7, 532	7, 330	202	14	220	364, 000	1, 655
Illinois.....	341.0	15, 154	179, 272	173, 857	5, 415	222	4, 200	8, 994, 000	2, 141
Indiana.....	160.9	6, 669	78, 519	76, 375	2, 144	85	1, 770	3, 588, 000	2, 027
Iowa.....	78.7	3, 006	35, 087	34, 219	868	72	840	1, 501, 000	1, 787
Kansas.....	56.7	2, 141	25, 082	24, 391	691	47	620	962, 000	1, 552
Kentucky.....	88.5	3, 120	36, 912	35, 907	1, 005	50	810	1, 417, 000	1, 749
Louisiana.....	65.5	2, 307	27, 550	26, 632	918	53	820	1, 352, 000	1, 649
Maine.....	49.2	1, 964	23, 006	22, 520	486	24	370	584, 000	1, 578
Maryland.....	76.7	3, 201	38, 170	36, 863	1, 307	59	950	1, 730, 000	1, 821
Massachusetts.....	251.4	11, 464	134, 785	131, 549	3, 236	117	2, 150	4, 247, 000	1, 975
Michigan.....	246.6	11, 167	131, 217	127, 576	3, 641	136	2, 870	6, 695, 000	2, 333
Minnesota.....	94.6	3, 866	45, 321	44, 129	1, 192	69	1, 030	1, 760, 000	1, 709
Mississippi.....	37.7	1, 140	13, 596	13, 138	458	31	460	552, 000	1, 200
Missouri.....	139.8	5, 670	66, 805	64, 708	2, 037	94	1, 640	3, 010, 000	1, 835
Montana.....	18.7	739	8, 736	8, 465	271	17	210	360, 000	1, 714
Nebraska.....	33.6	1, 261	14, 750	14, 332	418	34	450	728, 000	1, 618
Nevada.....	5.6	233	2, 746	2, 667	79	5	80	123, 000	1, 538
New Hampshire.....	29.8	1, 251	14, 698	14, 336	362	16	290	459, 000	1, 765
New Jersey.....	217.8	10, 078	119, 309	115, 721	3, 588	132	2, 260	4, 828, 000	2, 136
New Mexico.....	13.6	445	5, 289	5, 132	157	15	190	266, 000	1, 400
New York.....	637.1	28, 581	337, 160	327, 741	9, 419	466	7, 500	16, 146, 000	2, 153
North Carolina.....	93.3	3, 099	36, 991	35, 816	1, 175	70	1, 330	1, 979, 000	1, 488
North Dakota.....	9.4	326	3, 813	3, 699	114	13	140	188, 000	1, 343
Ohio.....	340.0	14, 978	176, 952	171, 924	5, 028	178	3, 760	8, 112, 000	2, 157
Oklahoma.....	58.8	2, 122	25, 004	24, 289	715	45	730	1, 303, 000	1, 785
Oregon.....	71.2	2, 988	34, 992	34, 206	786	43	660	1, 250, 000	1, 894
Pennsylvania.....	474.0	21, 116	250, 080	243, 038	7, 042	228	4, 620	9, 713, 000	2, 102
Puerto Rico.....	3.6	99	1, 092	1, 048	44	16	240	184, 000	767
Rhode Island.....	42.7	1, 935	22, 689	22, 211	478	19	400	744, 000	1, 860
South Carolina.....	48.5	1, 535	18, 398	17, 732	666	40	660	1, 036, 000	1, 570
South Dakota.....	12.2	435	5, 104	4, 960	144	16	180	245, 000	1, 361
Tennessee.....	82.7	2, 805	33, 312	32, 308	1, 004	62	1, 050	1, 673, 000	1, 593
Texas.....	178.0	6, 350	75, 444	73, 017	2, 427	192	2, 860	4, 750, 000	1, 661
Utah.....	20.3	784	9, 294	9, 027	267	13	220	390, 000	1, 773
Vermont.....	16.5	658	7, 721	7, 540	181	11	150	260, 000	1, 733
Virginia.....	90.7	3, 314	39, 322	38, 116	1, 206	70	1, 110	1, 785, 000	1, 608
Virgin Islands.....	.1	2	20	20	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Washington.....	107.8	4, 658	54, 508	53, 333	1, 175	55	980	1, 916, 000	1, 955
West Virginia.....	82.0	3, 179	37, 614	36, 738	876	33	680	1, 298, 000	1, 909
Wisconsin.....	130.7	5, 530	64, 977	63, 165	1, 812	87	1, 390	2, 928, 000	2, 106
Wyoming.....	7.3	288	3, 397	3, 297	100	8	140	204, 000	1, 457
Foreign ⁷	30.1	1, 317	14, 380	14, 168	212	(⁵)	40	81, 000	2, 025
Maritime ⁸						(⁵)	70	194, 000	2, 771

¹ State of residence estimated.² State data represent number of employers reporting taxable wages by the State of their reporting headquarters. An employer is a legal entity such as a corporation, partnership, or single ownership, for which a single tax return is filed.³ Preliminary estimate. State data represent workers employed in the State at some time during the year. Workers employed in more than 1 State counted once in each of the States in which employed.⁴ Preliminary estimate. State data represent taxable earnings distributed according to the State in which earned.⁵ Less than \$500.⁶ Too few workers in sample to give sufficiently reliable estimates.⁷ Benefit data relate to persons in foreign countries receiving old-age and survivors insurance benefits. Employment and earnings data relate to citizens of the United States employed in a business operated by an American employer.⁸ Data not available.⁹ Relates to employment of officers and crews of American vessels.

Table 5.—*Old-age and survivors insurance: Selected data on benefits, employers, workers, and taxable earnings for specified periods, 1951-53*

[Corrected to April 30, 1954]

Item	1953	1952	1951
Fiscal year			
Benefits in current-payment status (end of period):			
Number.....	5,573,594	4,593,801	4,033,583
Old-age.....	2,977,476	2,372,308	2,090,668
Wife's or husband's.....	826,599	668,297	596,098
Child's.....	1,003,281	896,820	787,311
Widow's or widower's.....	498,967	421,730	350,343
Mother's.....	244,809	214,030	192,357
Parent's.....	22,462	20,616	16,806
Total monthly amount.....	\$232,998,645	\$161,739,397	\$143,708,778
Old-age.....	\$150,124,169	\$99,591,517	\$89,000,025
Wife's or husband's.....	\$22,050,253	\$15,169,588	\$13,674,014
Child's.....	\$30,540,694	\$24,008,878	\$21,282,368
Widow's or widower's.....	\$20,332,424	\$15,161,777	\$12,683,323
Mother's.....	\$9,014,935	\$7,053,163	\$6,452,784
Parent's.....	\$936,170	\$754,475	\$616,264
Average monthly amount:			
Old-age.....	\$50.42	\$41.98	\$42.57
Wife's or husband's.....	\$26.68	\$22.70	\$22.94
Child's.....	\$30.44	\$26.77	\$27.03
Widow's or widower's.....	\$40.75	\$35.95	\$36.20
Mother's.....	\$36.82	\$32.95	\$33.55
Parent's.....	\$41.68	\$36.60	\$36.67
Payments certified during period:			
Monthly benefits.....	\$2,671,830,603	\$1,976,302,716	\$1,564,557,990
Old-age.....	\$1,706,768,787	\$1,221,993,921	\$961,559,867
Supplementary.....	\$265,681,059	\$198,803,036	\$159,616,144
Survivor.....	\$699,380,757	\$555,505,759	\$443,381,979
Lump-sum payments.....	\$76,267,982	\$58,270,100	\$45,473,616
Estimated number of living workers with wage credits (midpoint of period-Jan. 1): ¹			
Total.....	90,500,000	87,800,000	82,500,000
Fully insured.....	66,600,000	62,600,000	59,800,000
Currently but not fully insured.....	(2)	(2)	(2)
Uninsured.....	24,000,000	25,200,000	22,700,000
Estimated number of employers reporting taxable wages, 1st quarter fiscal year.....	3,630,000	3,635,000	2,768,000
Calendar year			
Estimated number of workers with taxable earnings (in thousands).....	(3)	60,000	58,000
Estimated amount of taxable earnings (in millions).....	(3)	\$128,000	\$120,110
Average taxable earnings.....	(3)	\$2,133	\$2,071

¹ Estimates of insured workers have not been adjusted to reflect changes in insurance status arising from: (1) provisions that coordinate the old-age and survivors insurance and railroad retirement programs, and (2) wage credits for military service. Estimates are only partially adjusted to eliminate duplicate count of persons with taxable earnings reported on more than 1 account number. The effect of such duplication is substantially less significant for insured workers than for uninsured workers.

² Not possible under the 1950 amendments until July 1, 1954.

³ Not available.

Table 6.—*Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, by program and State, fiscal year 1953*¹

[In thousands]

State	Maternal and child health services			Services for crippled children			Child welfare services
	Total	Fund A	Fund B	Total	Fund A	Fund B	
United States.....	\$13,299.9	\$6,582.3	\$6,717.6	\$11,814.8	\$5,691.9	\$6,122.9	\$6,388.4
Alabama.....	506.3	140.5	365.8	454.2	130.1	324.1	243.9
Alaska.....	112.6	51.6	61.0	169.7	50.2	119.5	35.6
Arizona.....	136.0	70.0	66.0				50.8
Arkansas.....	272.4	97.9	174.5	342.0	97.6	244.4	181.2
California.....	515.7	317.4	198.3	375.5	256.5	119.0	228.0
Colorado.....	207.9	83.9	124.0	109.7	77.4	32.3	75.0
Connecticut.....	142.5	92.7	49.8	175.8	86.8	89.0	70.1
Delaware.....	92.1	55.8	36.3	45.8	26.4	19.4	41.5
District of Columbia.....	172.7	69.5	103.2	151.2	60.7	90.5	30.8
Florida.....	279.3	115.6	163.7	220.3	106.3	114.0	107.3
Georgia.....	492.7	150.3	342.4	449.9	137.1	312.8	153.2
Hawaii.....	153.0	63.3	89.7	151.9	60.4	91.5	34.6
Idaho.....	91.6	65.3	26.3	84.9	62.7	22.2	21.6
Illinois.....	327.7	255.9	71.8	328.8	214.3	114.5	178.6
Indiana.....	262.6	161.3	111.3	131.9	95.7	36.2	76.9
Iowa.....	123.8	118.8	5.0	262.2	105.8	156.4	160.6
Kansas.....	143.5	95.9	47.6	136.5	88.9	47.6	116.4
Kentucky.....	402.7	131.5	271.2	413.2	122.5	290.7	245.4
Louisiana.....	347.1	130.8	216.3	288.6	116.3	172.3	179.4
Maine.....	104.2	71.8	32.4	91.0	68.3	22.7	76.2
Maryland.....	374.9	106.7	268.2	292.2	98.2	194.0	85.7
Massachusetts.....	316.2	152.9	163.3	209.8	140.5	69.3	91.6
Michigan.....	401.5	220.6	180.9	409.1	189.9	219.2	223.7
Minnesota.....	231.1	129.0	102.1	218.3	115.0	103.3	162.3
Mississippi.....	375.3	120.8	254.5	277.3	108.4	168.9	227.1
Missouri.....	254.8	141.5	113.3	306.1	130.0	176.1	180.3
Montana.....	113.7	64.6	49.1	128.6	61.3	67.3	65.7
Nebraska.....	94.5	72.5	22.0	89.0	60.4	28.6	21.5
Nevada.....	73.8	53.6	20.2	70.9	48.9	22.0	32.6
New Hampshire.....	79.4	58.8	20.6	100.1	58.9	41.2	51.9
New Jersey.....	179.7	155.0	24.7	146.5	140.1	6.4	72.4
New Mexico.....	111.3	71.5	39.8	100.5	66.5	34.0	73.2
New York.....	466.3	379.1	87.2	354.3	327.3	27.0	118.3
North Carolina.....	622.9	166.4	456.5	328.5	156.8	171.7	337.5
North Dakota.....	92.6	66.2	26.4	85.4	63.4	22.0	15.2
Ohio.....	441.4	256.1	185.3	413.9	215.2	198.7	95.1
Oklahoma.....	184.5	102.4	82.1	291.2	100.8	190.4	150.0
Oregon.....	112.7	86.5	26.2	118.2	80.2	38.0	53.7
Pennsylvania.....	526.9	294.7	232.2	320.8	267.1	53.7	278.0
Puerto Rico.....	400.9	141.9	259.0	373.9	123.3	250.6	195.7
Rhode Island.....	95.9	65.8	30.1	74.9	37.5	37.4	41.6
South Carolina.....	267.8	112.1	155.7	258.3	57.9	200.4	109.5
South Dakota.....	83.3	65.7	17.6	91.1	63.4	27.7	76.6
Tennessee.....	520.6	138.9	381.7	383.8	129.9	253.9	241.8
Texas.....	609.2	270.2	339.0	611.4	232.2	379.2	244.6
Utah.....	120.7	71.0	49.7	117.1	66.3	50.8	61.3
Vermont.....	87.6	57.9	29.7	100.0	56.3	43.7	55.4
Virgin Islands.....	79.2	48.7	30.5	79.5	48.4	31.1	32.2
Virginia.....	362.4	139.0	223.4	375.2	127.0	248.2	167.1
Washington.....	193.0	109.9	83.1	149.8	97.9	51.9	116.8
West Virginia.....	237.0	105.5	131.5	210.9	100.0	110.9	189.3
Wisconsin.....	192.8	138.9	53.9	288.1	123.8	164.3	180.7
Wyoming.....	109.6	88.1	21.5	57.0	35.1	21.9	32.9

¹ Based on checks issued.

Table 7.—Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1953, and total payments to recipients, by program and State, fiscal year 1953

[Includes vendor payments for medical care and cases receiving only such payments]

[Corrected to Oct. 16, 1953]

State	Old-age assistance			Aid to dependent children				Aid to the blind			Aid to the permanently and totally disabled		
	Number of recipients, June	Payments to recipients		Number of recipients, June		Payments to recipients		Number of recipients, June	Payments to recipients		Number of recipients, June	Payments to recipients	
		Average payment, June	Total, fiscal year (in thousands)	Families	Total	Children	Average payment per family, June	Average payment per recipient, June	Total, fiscal year (in thousands)	Average payment, June		Average payment, June	Total, fiscal year (in thousands)
Fiscal year:													
1951.....	2,748,827	\$44.39	\$1,472,544	633,288	2,171,402	1,617,623	\$74.45	\$21.71	\$567,670	\$47.65	94,306	\$47.68	\$32,512
1952.....	2,670,165	47.11	1,487,605	590,716	2,043,103	1,528,056	77.33	22.36	547,253	51.26	97,962	50.34	75,067
1953.....	2,608,898	51.08	1,381,052	564,289	1,983,431	1,493,622	83.98	23.89	562,026	55.53	99,032	53.72	104,392
Alabama.....	68,190	27.50	21,340	17,791	65,428	50,570	40.13	10.91	8,275	28.43	1,501	27.81	2,790
Alaska.....	1,642	58.13	1,122	884	2,937	2,147	85.08	25.61	770	58.29	52	—	—
Arizona.....	13,889	55.53	8,935	3,711	14,261	10,769	92.63	24.10	3,637	63.06	26	—	—
Arkansas.....	56,205	32.25	20,720	9,898	37,315	28,572	55.46	14.71	7,627	39.09	854	31.04	170
California.....	271,116	69.39	225,042	52,145	166,620	127,207	118.96	37.23	71,905	85.66	11,792	—	—
Colorado.....	52,243	78.70	50,086	5,156	19,102	14,503	104.32	28.16	6,109	65.46	347	55.85	2,526
Connecticut.....	15,293	75.40	14,210	4,113	13,547	9,977	129.14	39.21	6,401	88.11	314	—	—
Delaware.....	1,709	38.39	771	713	2,810	2,175	87.51	22.20	764	50.42	233	56.24	82
District of Columbia.....	2,705	54.97	1,689	825	8,325	6,486	109.45	26.52	2,472	57.94	188	62.02	992
Florida.....	66,562	43.36	33,277	18,490	63,192	47,623	53.27	15.59	11,293	48.22	3,098	—	—
Georgia.....	95,021	36.56	39,708	12,654	44,408	33,884	72.53	20.67	10,681	41.62	3,102	39.99	1,016
Hawaii.....	2,036	38.56	956	3,151	11,847	9,313	94.12	25.03	3,507	45.02	108	50.77	715
Idaho.....	9,063	54.39	5,792	1,854	6,465	4,747	119.56	34.29	2,612	58.98	190	57.93	530
Illinois.....	106,502	52.83	72,611	21,127	77,667	57,965	119.56	32.43	32,224	59.45	3,826	69.17	3,493
Indiana.....	40,142	44.96	21,831	7,577	26,058	19,335	83.49	24.28	7,740	51.13	1,320	—	—
Iowa.....	43,363	56.85	20,950	8,843	26,812	15,592	118.96	33.40	7,500	68.17	1,070	—	—
Kansas.....	36,363	61.68	24,683	8,903	13,632	10,628	103.05	26.44	4,506	68.89	437	63.94	1,915
Kentucky.....	55,478	36.17	20,491	9,267	72,893	54,183	64.48	17.98	14,651	37.19	2,613	—	—
Louisiana.....	119,733	51.19	73,643	19,753	73,703	55,360	63.28	16.96	16,226	47.51	1,904	41.45	7,122
Maine.....	13,175	46.25	7,138	4,171	14,595	10,562	81.95	23.43	4,026	50.04	357	—	—

Maryland.....	10,797	43,27	5,583	5,363	21,024	16,138	93,36	23,82	5,746	468	50,39	277	3,504	50,96	1,838
Massachusetts.....	86,878	73,84	85,214	12,452	40,934	30,234	118,65	36,09	18,084	1,702	85,93	1,669	3,280	91,54	8,602
Michigan.....	54,983	51,87	54,983	20,486	67,638	48,692	100,94	30,56	17,797	1,797	60,13	1,286	1,693	67,56	1,196
Minnesota.....	53,395	61,65	38,792	11,373	24,473	18,714	110,34	32,52	9,438	1,161	71,76	1,963	1,533	23,00	302
Mississippi.....	60,778	28,21	18,088	11,373	42,865	43,217	27,91	7,40	3,420	3,009	34,05	1,066	1,533	63,03	7,447
Missouri.....	130,728	50,03	76,797	20,507	69,940	51,881	60,53	17,75	14,521	3,520	55,00	2,098	1,234	63,03	881
Montana.....	10,421	57,98	7,358	2,244	7,907	5,881	102,11	28,98	2,667	520	64,02	394	1,234	63,03	881
Nebraska.....	19,186	55,02	13,102	2,451	8,506	6,298	95,88	27,63	2,856	718	66,67	568	1,234	63,03	881
Nevada.....	2,695	57,04	1,823	(2)	(2)	(2)	(2)	(2)	(2)	48	61,26	29	114	72,21	54
New Hampshire.....	6,941	56,66	4,543	1,274	4,482	3,305	124,01	35,25	1,886	295	61,26	209	114	72,21	54
New Jersey.....	21,453	59,85	14,808	4,991	16,842	12,784	111,73	33,11	6,495	823	64,62	634	2,166	72,67	1,553
New Mexico.....	10,989	46,44	5,814	5,434	19,546	14,970	75,30	20,33	4,350	430	43,87	218	1,919	39,52	1,011
New York.....	110,526	69,95	92,229	45,637	159,042	115,056	126,31	36,25	72,160	4,335	82,12	4,023	32,513	79,17	29,142
North Carolina.....	70,786	29,94	17,231	16,934	62,905	47,946	57,40	15,48	11,011	4,586	39,50	2,007	7,297	35,47	2,550
North Dakota.....	8,530	58,61	5,874	1,601	6,362	4,091	110,88	31,04	1,935	110	63,07	76	742	68,44	564
Ohio.....	108,988	54,11	70,154	12,788	47,702	36,082	82,70	22,17	12,227	3,613	53,18	2,303	6,265	49,45	3,345
Oklahoma.....	95,242	65,88	79,271	17,149	57,206	43,642	92,55	27,75	19,241	2,326	75,85	2,079	4,345	69,65	2,896
Oregon.....	21,622	62,41	15,630	3,200	11,139	8,306	119,55	34,38	4,184	357	73,01	309	2,193	74,39	1,798
Pennsylvania.....	64,462	42,80	36,323	23,406	95,126	71,968	95,61	25,54	32,981	15,846	49,44	9,693	10,257	48,50	5,956
Puerto Rico.....	45,321	7,61	3,827	36,089	113,533	87,387	9,53	3,03	3,582	1,206	7,34	91	12,692	8,20	1,019
Rhode Island.....	9,116	58,23	6,328	3,165	10,606	7,691	113,34	33,82	4,271	184	72,67	155	677	69,29	351
South Carolina.....	41,961	31,44	18,213	6,678	26,321	19,691	45,01	11,87	3,404	1,623	36,79	669	6,065	31,30	2,047
South Dakota.....	11,377	44,47	6,040	2,685	8,842	6,745	81,90	24,73	3,456	196	43,13	102	393	45,79	108
Tennessee.....	62,428	36,45	25,777	19,409	71,894	54,116	67,66	18,72	12,464	3,025	41,63	1,440	3,025	41,63	1,440
Texas.....	219,325	38,43	97,496	17,313	67,352	50,311	65,60	16,85	12,113	6,056	43,21	3,162	1,503	63,78	1,127
Utah.....	9,544	59,56	6,637	2,889	10,023	7,379	112,63	32,55	3,730	214	65,43	162	1,503	63,78	1,127
Vermont.....	6,900	41,12	3,370	1,028	3,566	2,744	73,37	21,13	806	172	45,21	92	251	44,95	120
Virgin Islands.....	6,601	11,11	95	196	624	534	13,78	4,96	4,42	42	34,17	6	55	11,96	4
Virginia.....	17,380	26,74	5,447	7,442	28,273	21,655	63,20	16,64	5,340	1,394	34,17	546	3,791	35,82	1,466
Washington.....	64,480	62,68	50,773	9,078	30,479	22,213	120,56	35,91	11,922	805	79,49	789	5,696	70,13	4,481
West Virginia.....	26,539	33,38	10,129	17,649	65,151	50,756	82,52	22,35	15,681	1,169	39,00	515	5,228	37,49	1,906
Wisconsin.....	48,913	61,24	34,055	8,010	27,406	20,228	129,81	37,94	11,711	1,239	65,97	946	1,084	92,87	891
Wyoming.....	4,057	59,72	2,877	506	1,835	1,376	107,75	29,71	645	80	61,64	62	1,461	59,70	315

¹ Includes as recipients the children and 1 parent or other adult relative in families in which the requirements of at least 1 adult were considered in determining the amount of assistance.

² No approved plan in operation.

³ Average payment not computed on base of less than 50 recipients.

Table 8.—Special types of public assistance under plans approved by the Social Security Administration: Federal grants to States and total expenditures and percent from Federal funds, by program and State, fiscal year 1953

[Includes vendor payments for medical care; amounts in thousands; data corrected to October 16, 1953]

State	Federal grants to States ¹					Expenditures for assistance and administration							
	Total	Old-age assistance	Aid to dependent children	Aid to the blind	Aid to the permanently and totally disabled	Old-age assistance		Aid to dependent children		Aid to the blind		Aid to the permanently and totally disabled	
						Amount	Percent Federal funds	Amount	Percent Federal funds	Amount	Percent Federal funds		
Fiscal year:													
1951.....	\$1,185,764	\$826,075	\$316,477	\$26,195	\$17,017	\$1,549,196	53.7	\$613,924	50.8	\$57,033	46.2	\$38,014	47.1
1952.....	1,177,688	799,845	303,280	29,397	45,165	1,572,790	52.5	598,644	52.0	62,942	47.0	85,922	49.2
1953.....	1,338,989	903,241	343,321	33,017	59,410	1,671,805	55.0	618,294	55.9	69,487	48.8	116,971	51.1
Alabama.....	26,508	16,950	6,953	399	2,206	22,912	74.8	9,135	76.0	542	72.8	2,992	73.9
Alaska.....	1,164	628	519	17	—	1,196	53.5	830	62.0	32	55.2	—	—
Arizona.....	8,141	5,265	2,602	275	—	9,258	58.1	3,865	69.0	512	55.0	—	—
Arkansas.....	22,295	15,296	6,276	592	131	21,507	71.6	7,941	77.8	886	67.6	196	70.3
California.....	149,880	109,661	35,433	4,786	—	235,842	46.8	81,329	44.4	12,725	38.1	—	—
Colorado.....	24,601	19,412	3,575	137	1,478	51,442	38.2	6,084	55.5	295	48.3	2,807	54.8
Connecticut.....	9,114	6,120	2,867	127	—	15,352	42.4	6,944	42.7	331	38.6	—	—
Delaware.....	1,240	570	525	96	49	842	66.9	827	64.0	164	59.4	88	56.3
District of Columbia.....	3,296	1,039	1,576	99	562	1,859	56.3	2,708	58.0	180	54.8	1,063	53.0
Florida.....	32,312	22,557	8,596	1,160	—	34,599	65.8	12,212	74.9	1,816	64.2	—	—
Georgia.....	38,544	28,491	7,903	1,022	1,127	42,026	68.6	11,457	69.7	1,551	66.1	1,334	64.3
Hawaii.....	3,244	661	2,187	39	357	1,060	63.8	3,854	56.5	67	58.1	799	50.3
Idaho.....	4,949	3,287	1,286	68	309	6,083	56.0	2,797	47.3	140	52.1	595	54.4
Illinois.....	59,351	39,068	17,057	1,594	1,632	78,210	50.8	34,816	47.8	3,161	50.1	3,860	42.9
Indiana.....	19,042	13,139	5,277	625	—	23,589	58.3	8,412	62.8	1,106	56.9	—	—
Iowa.....	21,539	17,101	3,900	537	—	32,754	54.8	8,206	47.5	1,155	46.6	—	—
Kansas.....	18,354	14,287	2,676	244	1,147	26,216	54.6	4,880	55.2	467	51.4	2,099	53.9
Kentucky.....	27,779	16,177	10,846	756	—	23,546	69.4	15,414	72.8	1,092	68.4	—	—
Louisiana.....	66,493	47,727	12,980	683	5,103	76,971	61.8	17,921	71.4	1,193	58.3	7,989	62.3
Maine.....	7,775	4,744	2,821	211	—	7,521	64.9	4,248	67.1	340	63.8	—	—
Maryland.....	8,841	3,676	3,794	176	1,195	6,041	61.8	6,228	60.8	295	59.3	2,101	57.7
Massachusetts.....	47,957	35,853	8,150	698	3,256	90,227	42.2	19,477	43.5	1,756	39.3	9,389	36.3
Michigan.....	48,723	31,670	15,734	723	595	57,331	56.6	29,537	51.8	1,349	53.4	1,253	47.3
Minnesota.....	24,741	19,115	5,163	464	—	40,594	49.1	10,459	48.9	1,068	44.8	—	—

Mississippi.....	18,597	14,537	2,970	812	278	10,408	74.9	3,969	74.8	1,135	71.3	387	72.7
Missouri.....	67,580	50,316	11,311	966	4,987	79,290	63.6	15,629	72.3	2,254	43.9	7,881	62.7
Montana.....	6,392	4,155	1,585	214	488	7,809	54.1	2,843	54.1	2,540	50.6	971	51.1
Nebraska.....	9,231	7,252	1,691	288	-----	14,101	53.4	3,078	56.3	607	47.4	-----	-----
Nevada.....	1,108	1,104	(2)	5	-----	1,985	56.6	(2)	(2)	35	3	-----	-----
New Hampshire.....	3,542	2,520	896	114	12	4,888	54.0	2,006	45.9	222	53.0	58	45.4
New Jersey.....	12,738	8,136	3,510	353	739	16,855	51.0	7,135	48.2	701	49.2	1,633	46.0
New Mexico.....	7,866	3,816	3,179	147	724	6,298	62.2	4,831	69.6	240	65.1	1,204	48.8
New York.....	101,826	45,782	39,625	1,925	14,494	103,084	45.4	84,365	45.9	4,700	42.5	33,433	42.8
North Carolina.....	25,584	13,172	8,959	1,517	1,936	18,212	73.0	11,920	75.7	2,323	65.8	2,806	68.8
North Dakota.....	4,473	3,082	1,078	43	269	6,245	51.5	2,072	51.3	89	51.8	614	45.9
Ohio.....	52,482	40,150	8,492	1,503	2,337	73,712	56.8	13,663	64.6	2,570	57.8	3,853	62.0
Oklahoma.....	51,000	37,062	11,494	983	1,401	74,325	50.6	19,986	58.6	2,134	45.6	3,098	48.4
Oregon.....	11,419	8,228	2,183	148	861	16,969	49.8	4,728	48.1	331	45.8	1,971	44.3
Pennsylvania.....	49,526	22,808	20,442	2,993	3,283	40,700	58.6	37,400	54.5	10,302	34.6	7,071	52.2
Puerto Rico.....	4,250	1,931	1,739	52	527	4,235	50.0	4,117	48.6	125	50.0	1,324	50.0
Rhode Island.....	5,805	3,458	2,110	75	161	6,754	51.6	4,512	48.0	165	45.6	397	47.1
South Carolina.....	16,481	11,509	2,858	495	1,618	16,121	71.3	3,743	76.1	717	68.4	2,306	69.6
South Dakota.....	5,844	4,032	1,629	70	113	6,486	64.7	2,649	64.3	111	65.0	196	63.3
Tennessee.....	29,446	18,340	10,120	985	-----	27,135	68.3	13,506	74.8	1,496	66.1	-----	-----
Texas.....	79,554	68,257	9,226	2,017	-----	100,815	67.8	12,964	74.0	3,215	65.4	-----	-----
Utah.....	6,381	3,726	1,926	89	620	6,918	54.9	3,986	49.6	170	52.0	1,189	52.2
Vermont.....	2,965	2,226	566	60	82	3,528	66.2	896	70.2	95	64.8	129	64.8
Virgin Islands.....	2,104	60	36	4	4	121	50.0	66	50.0	7	49.9	9	50.0
Virginia.....	10,159	4,421	4,244	408	1,087	6,188	73.0	6,054	71.5	618	67.9	1,739	65.1
Washington.....	33,090	24,839	5,779	323	2,145	52,887	47.5	12,626	47.2	820	40.2	4,750	46.4
West Virginia.....	20,307	7,388	11,126	359	1,434	10,590	70.5	16,147	69.4	537	67.5	2,064	67.7
Wisconsin.....	23,208	16,824	6,449	503	432	36,134	49.7	12,541	42.9	1,033	49.0	981	44.2
Wyoming.....	2,201	1,616	6,370	33	179	3,063	53.5	713	52.7	66	52.5	337	54.5

¹ Based on checks issued; differ slightly from fiscal year expenditures from Federal funds reported by States.

² No approved plan in operation.

³ Program approved May 25, 1953, effective with the quarter beginning April 1, 1953, with Federal participation in administrative costs being available from April 1, 1953, and in assistance payments from May 1, 1953.

Table 9.—Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding Dec. 31, 1935–52

Year	Number of reporting credit unions ¹	Number of members	Amount of assets	Amount of shares	Amount of loans
1935	762	118,665	\$2,368,521	\$2,224,608	\$1,830,489
1936	1,725	307,651	9,142,943	8,496,526	7,330,248
1937	2,296	482,441	19,249,738	17,636,414	15,683,676
1938	2,753	631,436	29,621,501	26,869,367	23,824,703
1939	3,172	849,806	47,796,278	43,314,433	37,663,782
1940	3,739	1,126,222	72,500,539	65,780,063	55,801,026
1941	4,144	1,396,696	105,656,839	96,816,948	69,249,487
1942	4,070	1,347,519	119,232,893	109,498,801	42,886,750
1943	3,859	1,302,363	126,948,085	116,988,974	35,228,153
1944	3,795	1,303,801	144,266,156	133,586,147	34,403,467
1945	3,757	1,216,625	153,103,120	140,613,962	35,155,414
1946	3,761	1,302,132	173,166,459	159,718,040	56,800,937
1947	3,845	1,445,915	210,375,571	192,410,043	91,372,197
1948	4,058	1,628,339	258,411,736	235,008,368	137,642,327
1949	4,495	1,819,606	316,362,504	285,000,934	186,218,022
1950	4,984	2,126,823	405,834,976	361,924,778	263,735,838
1951	5,398	2,463,898	504,714,580	457,402,124	299,755,775
1952	5,925	2,853,241	662,408,869	597,374,117	415,062,315

¹ In the period 1945 through 1952, the number of operating and reporting credit unions was the same. In other years, the number of credit unions which reported was less than the number in operation.

Table 10.—Federal credit unions: Assets and liabilities, Dec. 31, 1952, and Dec. 31, 1951

Assets and liabilities	Amount			Percentage distribution	
	Dec. 31, 1952	Dec. 31, 1951	Change during year	Dec. 31, 1952	Dec. 31, 1951
Number of operating Federal credit unions	5,925	5,398	527		
Total assets	\$662,408,869	\$504,714,580	\$157,694,289	100.0	100.0
Loans to members	415,062,315	299,755,775	115,306,540	62.6	59.4
Cash	66,033,714	63,574,011	2,459,703	10.0	12.6
United States bonds	85,859,900	77,678,164	8,181,736	12.9	15.4
Savings and loan shares	80,155,252	53,776,524	26,378,728	12.1	10.6
Loans to other credit unions	10,297,188	6,470,564	3,826,624	1.6	1.3
Other assets	5,000,500	3,459,542	1,540,958	.8	.7
Total liabilities	662,408,869	504,714,580	157,694,289	100.0	100.0
Notes payable	16,091,405	8,686,559	7,404,846	2.4	1.7
Accounts payable and other liabilities	1,715,599	1,244,784	470,815	.3	.3
Shares	597,374,117	457,402,124	139,971,993	90.2	90.6
Reserve for bad loans	19,571,805	15,542,645	4,029,160	3.0	3.1
Special reserve for delinquent loans	988,926	736,062	252,864	.1	.1
Undivided profits	26,667,017	21,102,406	5,564,611	4.0	4.2

Public Health Service

Health of the Nation

The Nation's investment in public health and related services has increased since World War II. Nevertheless, expenditures for the promotion of health and the prevention of disease and disability still comprise a small proportion of the Nation's total expenditures for health and medical care. The American public is spending about \$14 billion annually for all types of civilian health and medical services. Expenditures for public health work and medical rehabilitation of the disabled amount to only 6 percent of the total.

Public health measures, based upon the findings of scientific research, however, have produced spectacular results. The average length of life in this country has increased 6 years since 1940; 9 years since 1930; and 21 years since 1900.

At the present time, the most widely prevalent diseases and the major causes of death and disability are the chronic diseases and accidents. The protective measures against communicable diseases must be maintained, but they are inadequate against the growing volume of illness and injury requiring costly hospital and medical care. Unless services are sustained and extended, unless scientific research in the health and medical fields is sustained, hope must be abandoned for any substantial reduction of the burden that hospital and medical care imposes on all people.

THE MORTALITY RECORD

The familiar yardsticks by which we can measure the health of a people again tell Americans that they are blessed in this respect, but that there is still much room for improvement. In 1952,¹ the Ameri-

¹ All vital statistics are given for the calendar year.

can population had increased to about 160 million. In the same year, an estimated 1,494,000 deaths occurred, an increase of about 8,000 over 1951. The general death rate from all causes, however, still held a few points below 10 per 1,000 population for the fifth consecutive year. For the fourth year also, the maternal and infant mortality rates were lower than in earlier periods. Maternal deaths occurred at a rate of slightly less than 9 per 10,000 live births and infant mortality held at about 290 per 10,000.

Within the past five years there has been a striking decrease in the tuberculosis death rate, from 30 per 100,000 population in 1948 to a record low of 16 per 100,000 in 1952. The death rates from other serious infectious diseases also continued to decline. The syphilis death rate in 1952 was about 4 per 100,000 population, in contrast with 16 per 100,000 in 1938 when the nation-wide control program was inaugurated.

Deaths and death rates due to cardiovascular diseases, related diseases of the kidneys and circulatory system, and cancer continued to increase. In 1952, the cancer death rate reached an estimated 144 per 100,000 population, the highest ever recorded. The combined death rate for the major cardiovascular-renal diseases in 1952 was estimated to be 509 per 100,000. Deaths from cancer and the cardiovascular-renal diseases accounted for more than two-thirds of the total deaths in the United States.

COMMUNICABLE DISEASES

Virus infections continued to be the major problems in communicable disease control. Early in 1952, an outbreak of type B influenza swept through most of the States, but as in most such epidemics of recent years, the cases were generally mild.

A total of 57,600 cases of poliomyelitis was reported during the year, the largest number to date. The outbreak occurred principally in the North Central, South Central, Western, and Mountain States.

A severe outbreak of Western equine encephalitis occurred in the central valley of California in the summer of 1952, following a rainy season which favored the breeding of mosquitoes. Still another virus disease, infectious hepatitis, was reported in many parts of the country.

More cases of scarlet fever, streptococcal sore throat, and meningococcal infections were reported in 1952 than in 1951. The increases probably reflect the expected cyclic pattern of these infections. Malaria cases also were reported in sizable numbers, chiefly among military personnel and veterans from Korea. Few of these cases were contracted in the United States.

The reported incidence of diphtheria, whooping cough, and endemic typhus fever declined sharply in 1952. There were also small decreases in Rocky Mountain spotted fever and tularemia.

Eighteen cases of smallpox were reported in 1952, an increase of 7 over 1951. In the first half of 1953, 15 cases were reported, all but 3 in the State of Nebraska. However, not all of these reported cases have been confirmed by laboratory findings.

COMMUNICABLE DISEASES IN OTHER COUNTRIES

For the fourth consecutive year, England reported an outbreak of smallpox in the spring of 1953. Thirty cases, with 8 deaths, occurred in Yorkshire and Lancashire. Smallpox was epidemic in Colombia at the close of the fiscal year. In Asia, smallpox decreased except in Madras State, India.

Jungle yellow fever has gradually progressed northward in Central America. The first case to occur in that area was reported by Panama in 1950. Costa Rica reported cases in 1951 and 1952, and the first case occurred in Nicaragua late in 1952. Jungle yellow fever also is prevalent in the interior of the States of Sao Paulo and Parana in Brazil.

BIRTHS AND BIRTH RATE

In 1952, more infants were born in the United States than in any preceding year. More than 3.8 million births were registered and when unregistered births are added the total will probably be 3,890,000. The birth rate for 1952 was 25 per 1,000 population. Since 1947, the birth rate in the United States has been at about the same level as that of the 1920's.

A significant fact in our higher birth rate is that the number of families having a third or fourth child has increased steadily since the close of World War II. The reverse was true in the period following World War I, when there was a continuous decline in medium-sized families.

In 1950, 88 percent of the registered births occurred in hospitals and 95 percent of the deliveries were attended by physicians. Fifteen years earlier, the corresponding percentages were 37 and 87 respectively. The sharp rise in the percentage of births in hospitals and attended by physicians is an important factor in the continuing decline in maternal and infant mortality rates.

MARRIAGE AND DIVORCE

Marriages declined slightly from 1,594,113 in 1951 to 1,569,579 in 1952. About 4 in every 5 marriages reported in 1950 were first marriages for both bride and groom. More brides married at 18 than at

any other single year of age, and more grooms at 21 years. The median ages at remarriage was 34.3 years for brides and 39.9 for grooms.

On the basis of preliminary estimates, an upward trend has been observed in divorces since 1950. Figures for the first four months of 1953, for example, indicate a rise of 4 percent over the same period of 1952 in 20 States and the District of Columbia. Data from the United States Census of 1950 indicate that 44 percent of the divorces granted that year involved children and that the marriages which ended in divorce or annulment lasted, on the average, 5.6 years.

Emergency Activities

The Office of Health Emergency Planning continued to perform staff functions of the Public Health Service relating to defense and other emergency activities. Liaison with the Federal Civil Defense Administration, the Office of Defense Mobilization, the Department of Defense, the Atomic Energy Commission, and other Federal and quasi-official agencies has received major emphasis throughout the year.

An agreement between the Public Health Service and the American National Red Cross regarding collaboration during natural disasters was officially adopted by the two agencies, April 1, 1953. The Service also participated in the preparation of a memorandum of understanding, signed June 19, 1953 by the Secretary of the Department of Health, Education, and Welfare and the Federal Civil Defense Administrator, concerning responsibilities of the Department and the FCDA in disasters other than those induced by enemy attack.

The Public Health Service, the Armed Services, and the Federal Civil Defense Administration cooperated in the implementation of a program in the Nation's medical schools designed to prepare medical students for service in national emergencies.

The Office of Health Emergency Planning continued to collect information on the effects of disasters and on the means for meeting emergency problems. Disasters in two areas were studied in cooperation with other organizations. A study of the effect of the floods in the Netherlands in the spring of 1953 was conducted in cooperation with the Committee on Disaster Studies of the National Research Council.

The Division of Civilian Health Requirements continued its program of developing essential data on the needs and productive capacity for medical supplies and equipment, water and sewerage works construction, and hospital and health facility construction, in the event of full mobilization. This work is being done at the request of the Office of Defense Mobilization as a means of preventing serious shortages of critical supplies.

During 1953, the Division completed studies of the prospective demand and productive capacity for hypodermic syringes, hypodermic needles, microscopes, sterilizers, dental burs, dental units, elastic bandages, and catgut sutures. A study of the needs of civilian hospitals for more than 500 items of supply and equipment also was completed. Technical analyses were begun of estimates supplied by the Office of Defense Mobilization for the allocation of national production to water and sewerage facilities and hospital and health facility construction.

GAMMA GLOBULIN DISTRIBUTION

Since the Public Health Service is the national agency charged with the collection of vital and health statistics, the Office of Defense Mobilization delegated to the Service the responsibility for distributing gamma globulin to the States for use as a means of preventing paralytic poliomyelitis during the 1953 season.

The National Foundation for Infantile Paralysis made available the commercial supply of gamma globulin and the American National Red Cross and the Department of Defense contributed their available reserves. By common consent of these agencies, the Office of Defense Mobilization assumed responsibility for establishing policies under which gamma globulin was allocated. These policies were developed with the help of the National Research Council and the advice of leading epidemiologists, virologists, immunologists, hematologists, public health administrators, and practicing physicians.

The total supply was divided into three parts: one for allocation to the States in May 1953, on the basis of the five-year average number of reported cases in each State; a second, for later allocation to epidemic areas; and a third, to be held in reserve for emergencies. Entire responsibility for distribution of each State's supply was placed in the hands of the State health officer.

The allocation program required changes in the system of reporting cases of poliomyelitis to the Public Health Service. Inasmuch as non-paralytic poliomyelitis cannot be diagnosed with certainty, the States agreed to report the disease by paralytic and non-paralytic cases. These data were telegraphed weekly to the Public Health Service by counties, in order that allocation of gamma globulin might be made on the basis of paralytic cases. All deaths from poliomyelitis were also reported by name and county.

By June 30, 1953, the Public Health Service had distributed 2,337,622 ml. of gamma globulin. The first allocation for mass community prophylaxis had been authorized in Montgomery, Ala., where 30,000 children were inoculated. Additional mass community prophylaxis programs were anticipated as the poliomyelitis season advanced. Evaluation of the effects of different methods of using

gamma globulin on the incidence of paralytic poliomyelitis has been undertaken by the Communicable Disease Center of the Public Health Service.

Health Conditions and Resources

The Division of Public Health Methods continued its major functions of research and technical assistance to other parts of the Public Health Service and other groups engaged in analyses of health conditions and health resources. By giving aid in the design and methodology of such studies, the Division not only assists in promoting comparability of data in a wide variety of studies, but also has prompt access to the findings obtained in many surveys conducted throughout the United States. The Public Health Service thus acquires at minimal cost information essential in the conduct of its activities and in cooperative work with other Federal, State, and local organizations.

STUDIES AND SERVICES

Commission on Chronic Illness

The Division of Public Health Methods continued to serve as the center for coordinating activities of the Public Health Service with the Commission on Chronic Illness. During the year, the major emphasis has been on the planning for a Conference on Care of the Long-Term Patient, to be held in 1954 under the sponsorship of the American Medical Association, the American Hospital Association, the American Public Health Association, the American Public Welfare Association, and the Public Health Service. The conference is receiving substantial support from several life insurance companies and one foundation, as well as from the organizations affiliated with the Commission on Chronic Illness.

The Division also is participating in a survey of home care programs, sponsored by the Commission. Field work, covering 11 programs in 9 States, was completed. The data include descriptions of the programs and their objectives, the services and personnel available, the characteristics of the people served, and the costs. Another study, inaugurated in Maryland, deals with the characteristics of long-term patients in nursing homes and in general hospitals, and with the services received by such patients in their homes from visiting nurse associations.

Professional Education

During the year, the Division completed its study of schools of public health in the United States. This survey is the third in a series, beginning in 1951 with publication of a study of medical schools and

followed by a study of dental schools in 1952. The survey presents data on the courses given in schools of public health, the facilities, faculty resources, students, expenditures, and income of the schools, in 1950. The report also analyzes the basic operating expenses, expenses for separately financed research, and the amount and sources of income. It includes estimates by the deans of the schools indicating financial needs for construction and for teaching programs.

The Public Health Service participated in the Conference on Preventive Medicine sponsored in November 1952 by the faculties of preventive medicine in medical schools of the United States and Canada. The Division of Public Health Methods was represented on the consultant staff preparing background material for the conference. In connection with this service, the Division prepared an annotated bibliography of selected references on teaching preventive medicine.

Health Manpower

The Division continued to compile and assist in the compilation of data on the various categories of personnel in the health professions. The first section of the Health Manpower Source Book issued in 1952 dealt with physicians. During 1952, the second section on nursing personnel was issued. (See page 98.) The third section on medical social workers has been completed and was under review by an advisory committee at the close of the year. The compilation and analysis of this section were undertaken at the request of the American Association of Medical Social Workers and the Conference of Governmental and Voluntary Health Agencies sponsored in 1952 by the National Foundation for Infantile Paralysis.

Illness Rates

Since 1951, the Division of Public Health Methods has been serving as a Clearinghouse on Current Morbidity Statistics Projects, established at that time at the request of the Public Health Conference on Records and Statistics. During 1953, a summary of recent surveys which involve the measurement of illness, disease, injuries, or impairments was completed. It covers 207 projects in the United States and Canada and provides such information as the types of data collected, the population under observation, the method used, and the stage of progress.

A study of illness rates due to specific diseases has been initiated. Data from six comparable separate surveys, together covering a fairly large population, have been combined to provide the material for this study.

Continuing analysis of data collected in the health survey of the Eastern Health District of Baltimore, 1938-43, has thrown consid-

erable light on accident frequency by specific cause, nature and site of injury, and on the risk of accidents at home, in public places, and at work. Other studies utilizing Baltimore data deal with the preventive and related services received, such as dental care, eye refractions, physical examinations, and immunizations.

A trial survey of illness in relation to availability for work was begun in Hagerstown, Md. The study deals principally with persons past 45 years of age who are not now working.

PUBLIC HEALTH REPORTS

During the fiscal year 1953, the new *Public Health Reports* completed its first full year of publication. In January 1952, this journal—published weekly since 1878—was transformed into a monthly publication by consolidation with *The Journal of Venereal Disease Information* (established in 1920), *The CDC Bulletin* (established in 1946), and the *Tuberculosis Control Issue of Public Health Reports* (established in 1946). This consolidation effected a saving of 30,000 pieces of printed matter per month, and a reduction in annual pagination from 2,500 to 1,500.

The reorganized *Public Health Reports* represents an outlet of primary publication in the fields of public health practice and research for the entire Public Health Service. Editorial policies are formulated by a board representing the professional fields related to the journal's content. The chairman of the board and 6 of the 11 members are from outside the Federal Government. *Public Health Reports* also publishes the Public Health Monographs.

Funds and Personnel

In 1953, the funds available to the Public Health Service totaled \$271 million. Of this sum, about \$227 million was in appropriations and authorizations, the balance being made up in reimbursements for services rendered to other agencies and in unobligated balances from prior years for completion of the Clinical Center and for hospital construction grants.

Grants to the States for health programs and hospital construction amounted to 49 percent of the total funds obligated. Research and training grants to medical, dental, and research institutions represented 15 percent of the total.

At the close of 1953, the number of full-time employees in the Service was 15,228, as compared with 16,130 at the close of 1952. The major reductions in force were due to the closure of six hospitals, as a result of reduced appropriations for hospitals and medical care.

Members of the regular commissioned corps of the Public Health Service constituted 1,265 of the total employees, and members of the

reserve corps on active duty totaled 1,291. There were 12,672 full-time Civil Service employees.

Tables 1 and 2, pages 153-155, present detailed information on the finances and personnel of the Public Health Service.

During the year, the Division of General Services collaborated with the General Services Administration and the General Accounting Office in a major survey of procurement and property management practices at the National Institutes of Health. The printing and distribution facilities and staff of the division have been placed at the disposal of other parts of the Public Health Service in an effort to improve the mechanical quality and reduce the costs of publications.

Medical Services

The Bureau of Medical Services administers the oldest programs of the Public Health Service. Fundamentally, the activities of the Bureau are those which require the professional skills of physicians, dentists, nurses, and pharmacists as related to the care of the individual. Hospitals and medical services are required for certain groups whose health is a direct legal responsibility of the Federal Government. Foreign quarantine and immigration laws of the United States also require the medical examination of tens of thousands of individuals each year. In addition, many other Federal agencies need a corps of professionally competent men and women, available at all times, to provide medical services in connection with the legal responsibilities of those agencies.

Hospitals and Medical Care

The Division of Hospitals operates the medical program established for merchant seamen and other legal beneficiaries of the Public Health Service. The original law, approved by President John Adams on July 16, 1798, provided only for seamen of the American merchant marine. The following year its provisions were extended to personnel of the U. S. Navy, and until 1817 medical care of naval personnel ashore was provided by the Marine Hospitals. Since that time, Congress has increased the number of groups entitled by law to medical care in the hospitals and out-patient facilities of the Public Health Service. At present, these include, besides seamen, the officers and enlisted men of the U. S. Coast Guard; officers and crew members of the Coast and Geodetic Survey; commissioned officers of the Public Health Service; civilian employees of the Federal Government who are entitled to care for injuries and diseases incurred on the job; and a few smaller groups. In addition, the Veterans Administration may

send veterans to hospitals of the Public Health Service, on a reimbursable basis, in areas where it lacks sufficient beds in its own facilities.

The Public Health Service also operates two hospitals for the treatment and rehabilitation of persons addicted to narcotic drugs, and a hospital-community for the care of persons with leprosy. Freedmen's Hospital, a Federally-owned institution in Washington, D. C., also is under the general administration of the Public Health Service.

REDUCTION OF SERVICES

Appropriations to the Public Health Service for operation of its hospitals and medical care program have decreased in recent years, while the costs of hospital care have increased. Moreover, fewer patients are sent to Public Health Service hospitals by the Veterans Administration. Late in July 1952, it appeared that the daily average of veteran patients in 1953 would be only 375, as contrasted with 1,000 since 1947. Reimbursements for these patients account for a substantial portion of the operating funds for general and tuberculosis hospitals of the Service.

To meet the reduction in services and at the same time continue to give high quality care throughout its hospital and medical program, the Public Health Service in 1953 converted five general hospitals to outpatient clinics at the following ports: Mobile, Ala., Portland, Me., San Juan, P. R., St. Louis, Mo., and Cleveland, Ohio. In addition, the tuberculosis hospital at Fort Stanton, N. M., was vacated and has been turned over to the State of New Mexico.

At the close of 1953, the Public Health Service was operating 12 general hospitals varying in size from 100 to 1,000 beds, 125 outpatient clinics and offices, 1 tuberculosis hospital, 2 hospitals for narcotic drug addicts, and 1 hospital for persons with leprosy. The total of 16 hospitals and 125 outpatient services may be compared with a total of 26 hospitals and 117 outpatient facilities in 1949.

Reflecting the curtailment of services, admissions to Public Health Service Hospitals declined 16 percent in 1953 and the average daily patient census dropped 9 percent. In 1952, 500,000 persons received medical treatment under Public Health Service auspices, as contrasted with 466,000 in 1953. Out-patient visits in 1953 declined 4 percent. The general hospitals admitted 51,545 patients, as compared with 64,562 in 1952, or a decrease of 20 percent. The average daily patient census in the general hospitals declined 17 percent, from 4,053 to 3,353.

SPECIAL HOSPITALS

Admissions to the tuberculosis hospitals in 1953 were nearly 22 percent fewer than in 1952. At the close of the year, the one remaining all-

tuberculosis hospital at Manhattan Beach, Brooklyn, N. Y., was operating at slightly higher than normal capacity, due to the transfer of some tuberculosis patients from Fort Stanton. Clinical studies of the effects of recently discovered drugs and procedures in tuberculosis therapy continued at Manhattan Beach. The established programs of vocational counseling and rehabilitation were continued. An important feature of the latter is part-time paid employment at the hospital for selected patients to prepare them physically for gradual resumption of full-time employment when their improved condition warrants it.

At Carville, La., the Public Health Service operates the only hospital-community in the continental United States which is devoted exclusively to the care of patients with leprosy. The hospital provides the special medical, surgical, and dental services necessary to treat this disease, as well as those required to care for the general illnesses and injuries bound to arise in a population of nearly 400 persons. Hospitalization for leprosy usually lasts for several years, but most of the patients remain ambulant throughout their treatment. Consequently, professional social service and educational facilities are maintained, as well as a community activities program.

Medical research at Carville continued during the year in an effort to find more effective, quick-acting specific drugs for the treatment of leprosy. Meanwhile, the sulfone drugs are used since they are the best available means for arresting the disease. The use of various antibiotics appears to have reduced disability due to secondary complications of leprosy. Recently developed methods of treating ocular manifestations have produced encouraging results, pointing perhaps to a future reduction in the number of patients who become blind as a result of the disease.

Admissions to the Public Health Service Hospital at Carville rose from 68 in 1952 to 90 in 1953. The average daily patient census remained about the same.

The Public Health Service Hospitals at Lexington, Ky., and Fort Worth, Tex., received 5,214 patients during the year, an increase of 10.5 percent over 1952. Admissions for drug addiction increased 15 percent.

The usual course of hospitalization for narcotic drug addiction consists of withdrawal of drugs under intensive medical treatment, followed by thorough medical, psychiatric, and social study of each patient, and several months of continued treatment. Once the physical withdrawal has been accomplished, the goal of the treatment program is to condition the patient physically to remain abstinent and, through work therapy, psychotherapy, and other forms of treatment, to increase his ability to handle ordinary situations and problems of living without recourse to narcotics. A minimum of 135 days hospitalization is recommended for voluntary patients. Patients who

are committed by the Federal courts usually serve a sentence of one year or more.

PROFESSIONAL TRAINING

At the close of 1953, 8 of the Public Health Service Hospitals were approved for post-graduate teaching of physicians and dentists by the American Medical Association and the American Dental Association. On July 1, 1953, 104 medical interns, 32 dental interns, and 102 residents were on duty. At several of the hospitals, qualified trainees participated in approved professional education programs in dietetics, pharmacy, physical therapy, occupational therapy, social service, medical record library science, anesthesiology, medical technology, and hospital administration.

A training program for practical nurses was started in the Public Health Service Hospital at New Orleans, La. The plan is to admit about 20 students each year for 8 months of instruction and supervised experience in the hospital, following 4 months of preliminary study in local vocational schools. The New Orleans program was established by the Louisiana State Department of Education and is conducted in cooperation with the Vocational Education Division of the Orleans Parish School Board and six hospitals in New Orleans. It is supported by the Kellogg Foundation and approved by the New Orleans Hospital Council. By participating in this educational project, the Public Health Service is contributing to a pioneer effort to meet the shortage of nursing services through increasing the number of well-trained practical nurses.

FREEDMEN'S HOSPITAL

Freedmen's Hospital is the teaching hospital of Howard University School of Medicine and one of the largest Negro general hospitals in the country. It also operates a large School of Nursing. The hospital has 347 general medical and surgical beds, 51 bassinets, and a 134-bed tuberculosis annex.

In 1953, Freedmen's Hospital admitted 11,556 in-patients, a slight increase over the 1952 figure of 11,272. The daily average in-patient census was 457 as compared with 468 in 1952.

The out-patient department, consisting of 34 organized clinics, recorded an aggregate of 53,980 visits, averaging 221 per day. Registrations of new patients totalled 6,096.

The School of Nursing enrolled 99 students, 30 of whom were in the graduating class. The hospital also provided post-graduate training for 36 medical residents, 16 medical interns, 2 dental interns, and 4 clinical research fellows. In addition, 15 persons participated in training programs in dietetics, pharmacy, and hospital administration.

The Women's Auxiliary of Freedmen's Hospital, in its second year,

met with extraordinary success in its efforts in behalf of the hospital and the patients. The interest of the Washington community was manifested by hundreds of contributions of goods, money, and services. Among the many gifts gratefully received and acknowledged were a television set for ambulant patients, children's books, an oxygen tent, library service, and funds to purchase blood for transfusions.

Health Protection at Ports and Borders

The Division of Foreign Quarantine is responsible for preventing the introduction of epidemic diseases into the United States from foreign countries. This duty requires the enforcement of national and international quarantine regulations at seaports, airports, and border points of entry. The Division also performs the required medical examination of foreign citizens entering the United States under the immigration laws and regulations.

An estimated 39 million persons arriving in the United States during 1953 were subject to public health requirements under the national laws and regulations. In the same year, the Public Health Service inspected 27,524 vessels and 47,902 airplanes arriving from foreign ports. There were increases in the numbers of ships and airplanes inspected, as well as in the number of passengers inspected.

MEDICAL EXAMINATIONS

The Public Health Service examined 121,075 foreign citizens at United States consulates abroad and 1,609,655 in this country, in connection with immigration laws. Of these, 788 individuals examined overseas and 754 examined in this country were found to have diseases which excluded them from entry into the United States. In addition, 17,713 persons examined abroad and 23,185 examined in this country were found to have serious physical diseases or defects, not necessarily excluding entry. Minor diseases or defects were diagnosed in an additional 16,413 persons abroad and 4,871 in this country.

The Division continued to direct the examination and care of agricultural workers recruited in Mexico for the Farm Placement Program, under Public Law 78, 82d Congress. Mexican physicians under the supervision of medical officers of the Public Health Service examined 205,941 applicants, of whom 7,784 were rejected. At border reception centers, Public Health Service officers examined 292,891 workers. Of these, 3,456 were rejected for entry; 58 were found to have diseases or defects on applications for new contracts; and 348 were found to have diseases or defects prior to their return to Mexico.

Approximately 30,000 aircraft arriving at airports under United States control were sprayed with an approved insecticide either en route or immediately after arrival. Airport areas were inspected to

determine the prevalence of disease-carrying mosquitoes and control measures were applied when necessary. At several seaports, ships were inspected for the same purpose.

SPECIAL PROBLEMS

Smuggling of psittacine birds into the United States continued to present a major problem in the control of parrot fever. During the year, shipments of more than 3,000 birds, which had been smuggled across the Mexican border, were seized in California. A United States Customs agent acquired psittacosis from handling these birds. Laboratory tests indicated that the infection was present in a large proportion of the smuggled birds, all of which were thereupon destroyed. Foreign quarantine regulations were amended to require the destruction or deportation of birds which, during shipment, have been exposed to psittacosis, or have been in contact with birds showing symptoms suggestive of the disease or dying of unconfirmed causes. The regulations now include zoological parks among other establishments forbidden to import psittacine birds for sale or trade to the public or to dealers in birds.

REVISION OF REGULATIONS

Foreign quarantine regulations have been revised to conform with international sanitary regulations, promulgated by the World Health Organizations in 1951 and effective October 1, 1952. The new regulations include the earlier requirements under United States law concerning smallpox vaccination. Regulations for medical examinations have been revised primarily to conform with the health provisions of the new Immigration and Nationality Act, effective December 24, 1952.

Hospital Survey and Construction Program

The construction phase of the Hospital Survey and Construction Program has been in operation 6 years. More than 1,200 hospital projects and related health facilities have been completed by States and communities throughout the Nation with the aid of funds provided under the Hospital Survey and Construction Act. This law is administered by the Division of Hospital Facilities.

The annual revisions of the State Plans on file June 30, 1953, indicated that the States and Territories now have 1,059,816 acceptable hospital beds. The States further reported that they need 848,678 additional beds to provide adequate hospital care for the Nation's total population. The Congress made available \$75 million for hospital construction to help meet these needs in 1953.

The number of projects approved under the program increased from 1,827 on June 30, 1952 to 2,104 on June 30, 1953. During the year the one-thousandth project completed under the program was put into operation. By the end of the year 1,229 projects were in operation, 727 were under construction, and 148 were reported to be in "blue-print" stages. The total cost of these completed and approved projects is \$1,688,000,000, of which the States and local communities contributed over \$1 billion, and the Federal Government \$583 million.

About 75 percent of the projects are general hospitals, providing 82,621 beds. Public health centers account for 16 percent, while the remaining 9 percent are mental, tuberculosis, and chronic disease hospitals with a total of 19,700 beds.

The reports of the States show that the program is helping to meet the most urgent needs for hospital facilities and is making a contribution to the needed expansion of the Nation's medical education facilities. Nearly 800 of the approved projects are for completely new general hospitals in communities previously without hospitals or with inadequate facilities. Nearly three-fifths of the new hospitals are in communities of less than 5,000 population and about the same proportion are small buildings of less than 50 beds.

About 170 larger projects are providing teaching hospitals for the training of interns and medical residents. An additional 21 projects provide other medical education facilities in 18 States. The teaching hospitals and related facilities have received about \$114 million in Federal funds, or a little more than one-fifth of the total amount made available to date. The vital role of these institutions is the training of physicians, nurses, and other personnel who are needed to staff the small hospitals and health centers in rural areas, as well as the larger facilities in larger communities.

During the year, the Division of Hospital Facilities and the State Hospital Agencies cooperated in a survey of new general hospitals which had been constructed with Federal aid and in operation one or more years. The objective was to appraise many aspects of the National Hospital Survey and Construction Program, specifically to determine whether the new hospitals were satisfying the needs of their communities. The study showed that 200 new community hospitals, constructed with Federal aid, were providing a more extensive range of services than facilities of comparable size, type, and ownership which had been constructed in the same geographic areas without Federal aid.

The Division represented the Public Health Service in administering the provisions of the Defense Housing and Community Facility Services Act of 1951 for the construction of hospital facilities. Six projects were approved for \$1,630,238 in Federal funds to construct

hospitals in Hermiston, Ore., Orangeburg, S. C., San Diego, Calif., Moses Lake, Wash., Leonardtown, Md., and Moline, Ill.

The Nation's Nursing Resources

During 1953, the Division of Nursing Resources assisted 9 States in their studies of nursing service needs and nursing personnel and it supplied consultation to the National League for Nursing, the American Hospital Association, and the Health Resources Advisory Committee of the National Resources Council. In addition the Division completed several major studies in the fields of nursing administration, education, and statistics.

TRENDS IN NURSING PERSONNEL

In collaboration with the Division of Public Health Methods, the Division completed the tabulation and analysis of data on trends in nursing personnel, covering the years 1910 to 1950. The report brings together for the first time data from such sources as the U. S. Bureau of the Census, the Department of Health, Education, and Welfare, the American Medical Association, the American Hospital Association, and the professional nursing associations.

This study shows what has been happening to the nurse supply in the United States during the first half of the Twentieth Century. For example, the ratio of active graduate nurses to population in 1910 was 55 per 100,000 and has increased every decade to 249 per 100,000 in 1950. The rate of increase, however, has slowed markedly since 1930. The ratio in 1930 was 79 percent greater than in 1920, whereas the 1950 ratio was only 15 percent in excess of that of 1940. The report also includes data on the licensure and education of practical and professional nurses; six fields of professional nursing; interstate migration of nurses; and the numbers of graduate and student nurses by States.

STATE NURSING SURVEYS

Statewide surveys and programs to increase nursing resources were conducted in Colorado, the District of Columbia, Maine, Michigan, New Mexico, New York, Texas, Utah, and West Virginia. Typical results of these surveys may be observed in Texas. The Committee for the Improvement of Nursing Service in Texas is promoting four methods of making more nursing service available. These are: group private duty nursing; team nursing; continuity of care from hospital to home; and studies of nursing functions. In the last project, 19 hospitals in Texas are making studies of head nurse activities with a view to more effective utilization of nursing skills. The University of Texas has enrolled 375 graduate nurses in extension courses designed to increase their qualifications.

Michigan is the first State to try out a permanent system for continuous appraisal of the nurse supply, which the Division of Nursing Resources has recently developed. Utilization studies have been made by three Michigan hospitals to determine how the assignment of nursing personnel affects the amount and kind of service reaching patients. A group of general, tuberculosis, and mental hospitals also participated in job satisfaction studies designed to provide guide lines for recruitment and personnel administration.

RURAL EXPERIENCE FOR STUDENT NURSES

The Division has undertaken to develop a method whereby nurse educators can determine the types of illnesses cared for in small hospitals and thus select more effectively the institutions which will give their students valuable rural experience. The Medical College of Virginia and the Virginia State Hospital Association are testing the method in 27 hospitals of varying sizes.

INSTRUCTION FOR NURSING AIDES

At the request of the Health Advisory Resources Committee, the Division has prepared and tested a handbook for the instruction of nursing aides in hospitals. The book is to be published in cooperation with the American Hospital Association and the National League for Nursing. The procedures outlined in the handbook were selected after careful analyses of the duties that aides are most frequently expected to perform in small and medium sized hospitals. The educational methodology was based on recommendations of the Office of Education and authorities on training-in-industry. A month's practical trial at the Phoenix Medical Center of the Bureau of Indian Affairs met with enthusiastic response.

Dental Resources

The Division of Dental Resources continued to focus attention on the supply, distribution, and utilization of dental manpower. In addition to conducting and collaborating in studies, the Division also served as a center for information on dental health needs and resources.

SUPPLY OF DENTISTS

Existing information on the Nation's supply of dentists does not readily lend itself to analysis below the State level with respect to the individual dentist's field of specialization and his years in practice. The Division, in cooperation with the Division of Public Health Methods, is therefore compiling detailed data of this type which will

permit local planning agencies to study dentist distribution in connection with civilian defense or public health needs. When this basic material has been tabulated, the Division will conduct a broad study of dentist supply in relation to trade areas and community characteristics. An analysis of this type will also throw light upon the extent to which the present distribution of dentists is influenced by location of dental schools.

UTILIZING DENTAL MANPOWER AND FACILITIES

The Division continued to appraise the value of the use of multiple chairs and auxiliary personnel as a means of increasing the productivity of the individual dentist. In the interest of improving the dentist's operating efficiency, the Division has provided consultation in the design and development of a modernized dental cabinet which is now in production by private industry. The chief assets of the new cabinet are automatic drawers that open and close without the use of unhygienic drawer-pull knobs; a dust proof interior; and instrument trays and bottle holders of modified design which can readily be cleaned.

DENTAL EPIDEMIOLOGY

The dentofacial index (DFI), an epidemiologic concept developed by the Division, is being used to establish age- and sex-specific patterns of dentofacial deformity. The DFI shows promise as a scientific tool for determining the incidence and prevalence of these deformities in large populations. Efforts during the past year to find factors influencing malocclusions have led to the tentative conclusion that dental caries is not a primary agent in the etiology of malocclusion.

Medical and Hospital Resources

The Division of Medical and Hospital Resources was abolished at the close of the fiscal year 1953. A number of projects were completed and studies in progress were taken over by other Divisions.

An extensive report on the need for general hospital beds was completed and is being published. A compilation of State laws and regulations on the licensure of hospitals also was completed.

The inventory of nursing homes was continued in order to maintain a current list of the nursing homes and the responsible State agencies in the United States and Territories. The Division provided consultation to the Bureau of Public Assistance, the National Committee on Aging of the National Social Welfare Assembly, Inc., and the Commission on Chronic Illness. The Division also continued to stimulate and participate in informational programs for hospital

trustees, and took part in such a program sponsored by the Oklahoma State Department of Health.

Medical Services for Federal Agencies

Many departments of the Executive Branch of the Federal Government require the services of medical personnel to carry out one or more specific phases of an activity designed primarily for non-medical purposes. Since 1912, the Public Health Service has had the legal responsibility for providing medical services to other Federal agencies on a reimbursable basis. The professional staffs, which may include medical, dental, psychiatric, and nursing personnel, are assigned to the agency requesting the service through the Bureau of Medical Services, which is responsible for the maintenance of high professional standards. The Public Health Service, however, has no part in the determination of policies and administration of the programs. The following brief reports give an account of the medical phases of programs in which the Public Health Service participates through the long-term assignment of personnel. They do not include the staff assignments in the field of international health nor the many temporary assignments of personnel from all parts of the Service to other Federal agencies.

OFFICE OF VOCATIONAL REHABILITATION

Since 1943, the Public Health Service has assigned medical officers to the Office of Vocational Rehabilitation to assist in the administration of the physical restoration services made available to disabled persons through grants-in-aid to their State and Territorial agencies. At present there are 88 such agencies, 36 of which are limited to rehabilitation of the blind. Their programs are designed to help disabled persons return to gainful employment through the provision of the following services: medical diagnosis and treatment, including corrective surgery and hospitalization if necessary; prosthetic devices; counseling and guidance; vocational training; job placement and follow-up.

The proportion of case-service expenditures devoted to physical restoration has increased in recent years. In 1952, 43 percent of the total vocational rehabilitation expenditure for services in individual cases was devoted to physical restoration.

Training of Personnel

Seminars for physicians were initiated in 1952 and continued through 1953. Three such intensive courses on the clinical aspects of rehabilitation were conducted at the Institute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center,

in New York City. Fifty-three physicians from 35 States attended the one-week seminars. The chief aims of these courses are to develop an understanding of the philosophy of rehabilitation and to demonstrate the accomplishments possible through a coordinated approach to severe disability.

Interest in rehabilitation of the mentally ill has been growing rapidly. In an effort to prepare counselors for their role in this difficult task, the Office of Vocational Rehabilitation and the National Institute of Mental Health sponsored three training courses which were attended by 54 counselors from 43 States. The courses were held at the San Jose Teachers College, the Menninger Foundation, and Columbia University.

Facilities and Services

The Office of Vocational Rehabilitation and the National Society for Crippled Children and Adults sponsored a nation-wide conference of rehabilitation center directors at Indianapolis, Ind., in December 1952. Representatives of 43 centers in 25 States attended the conference to discuss such problems as personnel, professional and community relationships, and methods for more effective integration of services. The participants have now organized a National Conference of Rehabilitation Centers as a forum for the discussion of mutual problems. A Directory of Rehabilitation Centers has been organized and a pamphlet has been prepared, describing the programs of 40 centers in 20 States.

During the year, medical consultants of the Office of Vocational Rehabilitation provided technical assistance to communities in Alabama, California, Idaho, Iowa, Maine, Michigan, Mississippi, Missouri, Nebraska, Ohio, Pennsylvania, Texas, and Washington. Cardiac work classification units have been organized in a number of communities for the more precise determination of the work capacity of cardiac patients. During the year, advisory services on these projects were given to communities in Illinois, Oklahoma, Oregon, and Washington.

Community Cooperation

It is increasingly apparent that rehabilitation is related to the activities of health departments, public assistance agencies, and workmen's compensation agencies, as well as vocational rehabilitation agencies. To promote cooperation among these and other community agencies, joint meetings of rehabilitation, health department, and welfare personnel were held in Atlanta, Ga., Kansas City, Mo., and Gearhart, Ore. Closer working relationships have been developed in these communities with the result that services to the disabled are much better coordinated.

BUREAU OF EMPLOYEES' COMPENSATION, DEPARTMENT OF LABOR

Under the Federal Employees' Compensation Act, compensation, medical care, and other benefits are provided for injuries sustained by Federal employees in the performance of duty and for diseases attributable to employment. The development and operation of the medical care program is directed by medical officers of the Public Health Service assigned to the Bureau.

On the average, 30,000 to 35,000 cases, involving the furnishing of medical care and supplies, hospital services, dental care, prosthetic and orthopedic appliances and transportation, are under consideration at all times. Where Public Health Service Hospitals and outpatient clinics are not available, private physicians who have been designated by the Bureau to care for its beneficiaries provide the necessary medical care. Special examinations and study of case records by outstanding specialists in the several branches of medicine are also provided.

Studies of Occupational Hazards

Cooperative research and special study of occupational health hazards are important functions of the medical program. A study has been made concerning certain organic dyes as a factor in cancer of the bladder. Certain aspects of castor bean allergy were reviewed at a Federal research center. The National Institutes of Health has participated, together with other governmental research facilities, in the study of occupational health hazards including noise, carbon monoxide, skin irritants, noxious gases, and silica dusts.

The study of tuberculosis cases has been continued throughout the year in order to identify areas of special hazard for institutional employees of the Government, with a view to application of corrective measures. The findings are being applied to expedite the adjudication of cases involving tuberculosis.

Cases involving death or loss of wage-earning capacity from poliomyelitis have been reported with increasing frequency. In some of these cases, the disease allegedly followed various immunization procedures. Case studies are being made to determine whether this is only a chance relationship, or whether the immunization procedure may act as a traumatic incident of sufficient degree to be considered an "aggravating" factor of material degree. No definite conclusions have been reached.

A pilot study of physical rehabilitation, which was established in the Washington Metropolitan area through the Public Health Service Outpatient Clinic, has developed during the past year. The cooperative arrangements established some time ago with the Kessler Institute for Rehabilitation at West Orange, N. J., and with the Institute of

Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, have continued.

A test arrangement has been made between the Bureau and the Navy Department for operative care of inguinal hernia cases occurring among employees of shore establishments of the Navy. Where the local authorities feel that a *prima facie* case has been established as to the occupational origin of the hernia, treatment is furnished at once. At a later date, adjudication of the case is carried out in the usual manner.

BUREAU OF PRISONS, DEPARTMENT OF JUSTICE

On June 30, 1953, the Public Health Service completed 23 years of providing medical, nursing, dental, psychiatric and psychological services for the 6 penitentiaries, 5 reformatories, 7 correctional institutions, 9 prison camps, the training school, the Federal Jail in New York City, and the Medical Center at Springfield, Mo., under the administration of the Bureau of Prisons.

During the year, complete medical service, consisting of examination, surgical, medical, psychiatric, and dental treatment was provided for some 38,960 inmates. Public Health Service officers also provided consultation on matters of institutional and industrial health and advised administrators on medical and psychiatric matters.

The general health in the prison communities has been good during the year. There were only 52 deaths at the various institutions during the year, 22 occurring at the Medical Center. As would be expected, most of the deaths at individual prisons were due to cardiovascular accidents, although 6 at the Medical Center were in this category. The largest single cause of death at the Medical Center was cancer.

The several research projects in progress last year were continued. Significant developments reported by the National Institutes of Health were made possible by volunteer patients from the prisons and by cooperation of Bureau medical staffs.

The Air Force Station in Montgomery, Ala., furnished medical services to the Federal Prison Camp in that area. Under an agreement with the Bureau of Prisons, the Camp furnishes prison labor for the Air Force.

The Arizona State Health Department continued to furnish penicillin for the treatment of cases of syphilis at the camps in that State, but was obliged to discontinue the performance of serologic tests. Most of the stations were visited by local or State X-ray mobile units to survey the inmate population and personnel.

The Bureau of Internal Revenue continued to use the medical department at the Federal Correctional Institution in Englewood, Colo., for examination of personnel. Limited outpatient care was also provided to the Coast Guard by the medical service of the Federal Correc-

tional Institution in Tallahassee, Fla. The Medical Center performs electroencephalographic services for physicians in the community. The staffs at the penitentiary in Terre Haute, Ind., and the Medical Center continued to assist the local communities with their mental hygiene programs.

The inmates and personnel at the institutions donated more than 8,000 pints of blood to the American National Red Cross during the year, in addition to contributions to local blood banks. Leavenworth received the Red Cross Achievement Flag in recognition of its blood donations.

The numbers of inmate trainees and workers at the Dental Laboratory, Springfield, Mo., have increased. Machinery was set up to give inmates some training at other institutions prior to transfer to the Dental Laboratory.

A physician has been assigned to direct the medical and psychiatric services to be established in connection with the Youth Corrections Act. One of his major tasks will be to assist in planning the diagnostic centers created under the act. In addition, he will serve as psychiatric advisor in assisting the Courts, the Youth Division, and the Advisory Correction Council in implementing the provisions of the act.

BUREAU OF INDIAN AFFAIRS, DEPARTMENT OF THE INTERIOR

During the past 4 years, the Public Health Service and the Bureau of Indian Affairs have intensified their cooperative efforts to improve the public health and medical services for the 350,000 Americans who live on Indian Reservations or in Alaska as wards of the Federal Government. These efforts are beginning to show positive results in lower death rates and better living conditions.

Death rates among Indians are shockingly higher than in the total American population. The infant death rate among Indians in 1952, for example was 80.5 per 1,000 live births, as compared with 29, per 1,000 in the United States as a whole. However, the 1952 rate for Indians was 12 percent lower than in 1949, whereas the United States rate has decreased by only 9 percent in the same period.

The tuberculosis death rate among Indians also has declined, from 121 per 100,000 population in 1949 to 105 in 1952. In contrast, the United States death rate from tuberculosis dropped from 26 per 100,000 in 1949 to 16 in 1952, a decrease of 38 percent as compared with a decrease of 13 percent among Indians. It is significant that the three leading causes of death among Indians in 1952 were tuberculosis, accidents, and unknown and ill-defined causes. In the total population, tuberculosis ranked eighth and accidents ranked fourth. Ill-defined and unknown causes no longer appear among the first ten causes of death in the total population. Since the majority of deaths

in this category are due to unknown causes, it appears that a larger proportion of the Indian deaths occur without medical attention.

Medical and Hospital Care

At the close of 1953, the Bureau was operating 58 hospitals with a total authorized capacity of 2,881 beds distributed as follows: 1,538, general; 1,268, tuberculosis; and 75, orthopedic. The average daily patient census during the calendar year 1952 was 2,425.7, including approximately 1,282 general patients, 1,076 tuberculosis patients, and 70 orthopedic patients.

The difficulties reported earlier in recruiting and retaining Civil Service physicians for duty in Bureau hospitals increased during the year. Vacancies reduced the number of Civil Service physicians from 73 at the close of 1952 to 56 at the close of 1953. The decrease was compensated by the assignment of medical officers of the Public Health Service who are completing their obligated service of 17 to 24 months. At the close of 1953, the Bureau was still unable to open the new 400-bed hospital in Alaska due to the fact that not enough Civil Service physicians could be recruited.

Public Health and Preventive Services

A special section of public health services was set up during the year to develop and administer a more comprehensive program of preventive medical and dental care, with emphasis on tuberculosis control, environmental sanitation, and oral health among children. A medical officer with post-graduate public health training was assigned to direct the activities of the section.

The long-range objective of the program is to place responsibility for public health services to Indians in State and local health departments whenever possible and to set up health units operated by the Bureau in areas where such State and local services cannot be provided. At the close of 1953, 34 contracts with health departments had been negotiated in 15 States and Alaska, at a total cost of \$269,344. Moreover, many local health departments are now extending their services to Indian Reservations without benefit of contract or financial subsidy.

Approximately 48 percent of the Indian population resides in areas where local health services are inadequate or non-existent. As a result, the Bureau established public health units in the Navajo and Pima-Papago Reservations during the year. In addition, public health nurses are stationed at strategic population centers on the reservations and clinics are conducted by field and hospital physicians.

Nursing Service

Recruitment of nursing personnel, particularly the professional nurse, is still a major problem. In the hospitals, the concept of the nursing team is being applied and has had encouraging results in improving the quality and amount of care, raising the morale of the staff, and increasing the efficiency of the nursing service. The larger hospital team, embracing hospital management, medical, nursing, and allied personnel, also has helped to implement the total health services now being provided for the Indian people. It has not only improved services in the hospitals, but also has made possible better cooperation with community health and welfare agencies.

The Schools of Practical Nursing at the Kiowa and Mt. Edgecumbe Medical Centers enrolled 64 students during the year, 49 of whom completed their full year of training. The Phoenix Center also cooperated with the Division of Nursing Resources of the Public Health Service in testing new methods and materials from training nursing aides. An affiliation program in pediatrics has been started at the Tacoma Indian Hospital for students of the collegiate school of nursing of the University of Washington. The project will be valuable in raising the level of care for children in Indian hospitals.

Sanitation

The development of a greatly needed sanitation program on the reservations has progressed. The School of Orientation and Training for Indian Sanitarians at Phoenix, Ariz., operated throughout the year. Twenty-one young Indians selected by their Tribal Councils have completed the course and are serving as sanitarians on their reservations. During 1953, 9 new students were selected and at the close of the year, 14 were in training.

Tuberculosis Control

Three mobile X-ray units operated by the Bureau made 25,000 chest examinations during the year. An additional 5,000 Indians received chest X-rays from units operated by the State health departments of New Mexico, North Dakota, and Oklahoma. Seventy-five percent of the 4,251 infants born in 34 Indian hospitals were vaccinated with BCG. The cooperative project with the New York Hospital-Cornell Medical Center for the treatment of tuberculosis patients with isoniazides was continued.

Oral Health

Eighteen additional oral health clinics were established to provide services for 10,000 Indian children in areas where local dentists are not available. Young Indian women have been trained as dental

assistants and have thereby increased the efficiency of the oral health program.

MARITIME ADMINISTRATION, DEPARTMENT OF COMMERCE

Medical and dental officers of the Public Health Service continued to furnish professional service to enrollees at U. S. Maritime Service Training Stations and to Cadet-Midshipmen at the U. S. Merchant Marine Academy. A part-time contract medical officer at the Maritime Service Training Station, Alameda, Calif., and a consultant ophthalmologist at the U. S. Merchant Marine Academy, Kings Point, N. Y., supplemented the program.

The medical program was concerned primarily with outpatient and inpatient services at the training facilities. In addition, professional guidance and supervision were furnished to the emergency rooms at the eight Maritime Administration Reserve Fleets. The medical and dental officers assisted in the courses on preventive medicine and first-aid at the training facilities, supervised hygiene and sanitation activities, and participated in the field safety programs.

A sight correction-protection program was developed jointly by the Safety Engineer and the Medical Branch. The program is designed chiefly for those employees of the Maritime Administration who are blind in one eye and whose duties expose them to industrial operations.

UNITED STATES COAST GUARD, TREASURY DEPARTMENT

At the close of 1953, 81 Public Health Service officers were on duty with the Coast Guard. There were 32 medical officers, 40 dental officers, 8 nurse officers, and 1 scientist officer.

Work was started during the year on a manual for the Medical Department. This publication will provide a single, complete manual covering all Medical Department activities.

Excellent medical and dental logistic support was furnished by the Jersey City Supply Center. A study was undertaken during the year to revise the medical unit allowance lists and to investigate the present manner of providing medical logistic support.

FOREIGN SERVICE, DEPARTMENT OF STATE

New health units under the supervision of a nurse were established at Kabul, Rangoon, and Baghdad. A previously closed health unit was re-established at Karachi and a medical officer was sent to Paris. Plans were developed for establishing a health unit at Tripoli under the supervision of a local nurse and under the general direction of the Public Health Service nurse assigned to this post under the Point IV program.

The examination program was expanded during the year. In most cases it was possible to complete the examinations within three days

after the appointment was requested. A policy of examining dependents going to high altitude posts was established, and provision was made to examine other dependents when special medical problems were present. The psychiatric screening procedures were also expanded during the year. For a period of three months all clerical personnel were given psychiatric evaluations prior to their first assignment.

The Medical Director surveyed posts in Central America, the Caribbean Area, and the Near East and the Director of Nursing visited health units in Europe, the Near East, and India.

Advancing Front of Science

The business of the National Institutes of Health is the conduct and support of medical research. Laboratory and clinical studies are directed toward a clearer understanding of man in his modern environment, and hence toward the prevention and cure of the diseases and conditions that most commonly afflict him.

That has been the purpose of research in the Public Health Service since its formal beginning nearly 70 years ago. At that time, the main problem was to discover the causes and the means of preventing epidemic diseases. When scientists of many nations proved that those diseases were caused by living organisms, research concentrated on ways of removing the organisms from the environment or of helping the human body to combat them.

A half century of progress against communicable diseases crowned these efforts. Cholera and typhoid fever, malaria, yellow fever and typhus fever, tuberculosis, syphilis, streptococcal infections, and many other diseases have been brought under control. As a result, 21 years have been added to the average length of life in America since 1900. More Americans, however, are subject to diseases that arise from little-understood defects of faulty functioning within the body. These are the so-called chronic diseases, such as cancer, heart disease, arthritis, and neurological disorders. The environment also has changed and modern man is confronted by many new threats to life and health. The stresses of urban life, with its crowding, its rushing traffic, its irritating fumes, its many demands on the body and mind, have replaced the former hazards of poor sanitation and epidemic outbreaks. Among many other results, mental ill health is now a much more common experience than in earlier generations, and accidents on the highway and in the home take an enormous toll in deaths and permanent disablement.

Medical research today must necessarily concentrate more and more on the understanding of man and his bodily and psychological re-

sponses to his environment. To cope with the problems of chronic disease and other causes of death and disability, science must provide medicine and public health with innumerable facts about the growth, aging, and regeneration of living tissues. Research must probe into such mysteries as the metabolism of cells and the molecular structure of body chemicals. The problems now to be studied require scientists trained in many different fields, working in close association with scientists in other institutions, and utilizing a great variety of specialized equipment.

The mounting significance of these research problems was recognized before World War II. Prior to the war, however, only one specialized research program in the chronic diseases had been established in the National Institutes of Health; namely, that of the National Cancer Institute. Since 1946, six additional institutes have been formed, each to work in a specialized field: mental health, dental research, heart disease, microbiology, arthritis and metabolic diseases, neurological diseases and blindness. Together, the seven institutes form the National Institutes of Health. Each includes a program of research in its own laboratories; each includes a program of support for research and training in non-Federal institutions.

The Clinical Center

On July 2, 1953, the Secretary of the Department of Health, Education, and Welfare dedicated the Clinical Center at the National Institutes of Health. A few days later, the Center admitted its first patients.

These events were the culmination of a six-year period of planning and construction. They marked the beginning of a new era of medical research in the Public Health Service. The Clinical Center, authorized by Congress in 1948, provides a facility for the much-needed integration of laboratory and clinical research in the National Institutes of Health.

Solutions of the problems of chronic illness will probably emerge bit by bit from the findings of research in the basic sciences correlated with the observation of patients. Research of this kind requires continuity and integration. Even with the needed facilities, it may be years, even decades, before the answers to some of these problems are found. Without an opportunity for laboratory and clinical scientists to work together, the solutions would be further delayed.

The National Institutes of Health can now carry out more effectively its responsibilities, as defined by Congress, for supplementing the intensified research effort of universities, medical schools, foundations, and industry in the fields of chronic disease and related problems. The

architectural design, the construction, equipment, and staffing of the Clinical Center all contribute to that end.

The Clinical Center is constructed in the shape of a Lorraine cross, with each of 14 floors divided lengthwise by two corridors. On the south side are rooms for 500 patients; in the center are services directly related to patient care; and on the north side are laboratories for clinical studies. Laboratories for research in the fundamental sciences are in six wings off the main stem.

The area for the care of patients has all the resources of a modern hospital, with the addition of many features especially designed for the care of long-term patients. There are approximately 1,100 standard laboratory units, each 12' x 20' in size. Demountable partitions and standardized equipment allow for laboratories to be rearranged with a minimum loss of time and materials.

Although the schedule for occupancy of the Clinical Center has been planned to reach full 500-bed capacity no sooner than 1956, each Institute has appointed a chief of its clinical research program, and a nucleus of the clinical research and medical service staffs has been assembled. An advisory medical board, comprising senior clinicians of the various Institutes and heads of Clinical Center service departments, meet regularly with the Director of the Center. A panel of clinical consultants has been established.

According to the planned schedule, approximately 250 beds will be in use by the end of the fiscal year 1954. This gradual build-up will continue for another two years. The activation of research laboratories and of additional patient areas will be tied to the activation or expansion of specific research projects.

The patients who will participate in the research projects conducted at the Clinical Center will be referred for admission by cooperating physicians in hospitals, clinics, and private practice. Only those patients will be accepted whose illness presents the conditions under study and who can be expected to cooperate with the research scientists for long periods. The referring physicians will receive full reports on the status of the patients and will be asked to cooperate in the follow-up study of patients after discharge from the Clinical Center. While hospitalized at the Center, patients will receive the best possible medical, surgical, and hospital care, including occupational and recreational therapy and rehabilitation if necessary. The welfare of each patient will take precedence over every other consideration.

Research Grants and Fellowships

Approximately 67 percent of the funds appropriated to the Public Health Service for research in 1953 went to universities, hospitals, and

medical schools throughout the Nation in the form of research grants, teaching grants, fellowships, and traineeships. These programs are administered by the National Institutes of Health through the Division of Research Grants.

The seven National Advisory Councils, established by Congress to advise the Surgeon General on the administration of the research grants and fellowships program, as well as on other matters related to the programs of the seven Institutes, continued to function during the year. The members of the Councils include national leaders in medicine, research, education, and public affairs and are not employees of the Federal Government. In addition, Study Sections composed of specialists in diverse areas of medical and allied research, assist the Advisory Councils by reviewing and evaluating the applications submitted to the Public Health Service for research grants.

During the fiscal year 1953, 3,755 applications were received. Of these 2,084, in the sum of \$20,936,410, were awarded from fiscal year 1953 funds. The Public Health Service also awarded 543 research fellowships, totalling \$1,943,397, to scientists during the year. Nearly 1,000 (948) training stipends totalling \$2,234,088 were awarded to physicians and other graduate students for advanced clinical study.

Table 3, page 156, presents the numbers and amounts of research grants, fellowships, and training stipends awarded in 1953, by State and country. Some of the significant findings in studies supported by the Public Health Service are described in the reports of the various Institutes.

Arthritis and Metabolic Diseases

The National Institute of Arthritis and Metabolic Diseases reported a year of solid accomplishment both in its own laboratories and in the work of scientists receiving research grants in outside institutions. Further progress appeared even more promising with the opening of the Clinical Center. Plans were completed for launching clinical studies in time for the admission of the first patients early in July 1953. Working relations with other public and private organizations were strengthened and extended.

The Institute's emphasis upon basic research on metabolism continued during the year. The aim is to throw more light on common factors that may be responsible for such diverse disorders as arthritis, diabetes, obesity, and diseases of the liver and endocrine organs. From such basic knowledge may come the means of prevention and cure.

RESEARCH ACCOMPLISHMENTS

A new technique for measuring minute quantities of insulin in the blood was developed at the Institute. It provides a means for rapid

and precise identification, hitherto lacking, which will be useful both in the diagnosis of diabetes and in research on the disease.

Another test, recently developed, may be useful in the diagnosis of rheumatoid arthritis. It is based on the discovery in arthritis patients of a blood factor which produces an agglutination reaction. A third new test is expected to be valuable in research on pernicious anemia, sprue, and other diseases involving deficiencies in folic acid and vitamin B₁₂.

Rapid, accurate chemical tests were developed for identifying such synthetic drugs as demerol, nisental, methadone, and dromoran. These tests should be of particular value to police and narcotics agents, since they are simple and do not require laboratory equipment.

Clinicians have made progress toward learning the causes of thrombocytopenic purpura, a disease in which fatal, spontaneous bleeding occurs. An agent has been found in the blood of patients which destroys the natural clotting action.

Studies indicated that intense radiation kills by releasing into the blood a substance which is toxic to the nervous system, rather than by direct destruction of tissues. If confirmed, this finding will greatly increase the chances of developing a successful treatment for radiation injuries.

An acute deficiency disease affecting the liver has been found to result from the simultaneous absence of three nutritional factors: cystine (an amino acid), vitamin E, and a hitherto undetected substance called factor 3. The Institute has developed a method for preparing factor 3 in highly concentrated form. The substance restored normal liver function in diseased animals.

An obese person is helped by weight reduction, but the long-term benefits are uncertain. Animal studies have been started to determine the effects of obesity and weight reduction on health. In the process, the heaviest rats ever reported in experimental research were produced as a result of diet alone.

The production of cortisone from plants, perfected in recent years, has greatly increased the supply and has reduced the cost of the drug from about \$400 per gram to \$7.50. Work in progress at the Institute may introduce two new sources for the synthesis of cortisone in quantity; namely, solasidine and ergosterol.

RESEARCH GRANTS AND SOME RESULTS

Research grants, totalling \$1,434,945, were recommended for 146 projects by the National Advisory Arthritis and Metabolic Diseases Council and approved by the Surgeon General for payment from 1953 appropriations. These projects were conducted in 32 States, the District of Columbia, and 3 foreign countries. Research fellowships, totalling \$144,159, were awarded to 43 applicants and training sti-

pend, totalling \$51,170, were awarded to 15 physicians. The following accomplishments are typical of those reported by grant recipients.

Radioactive cortisone and radioactive hydrocortisone were produced for the first time in quantities sufficient for medical research. The radioactive hormones are now available to qualified scientists who will conduct tracer studies to determine how the hormones operate in arthritis and other diseases.

A follow-up clinical study, initiated in 1949, to appraise prolonged administration of cortisone in rheumatoid arthritis, was completed. Of the 71 patients followed, 15 were judged free of the disease; 9 were not sufficiently benefited to warrant continued treatment with cortisone; and the remaining 47 required continued treatment. Of 17 patients who were bedridden at the outset of the study, only 2 remained in that condition.

Cancer Research and Control

The National Cancer Institute, oldest of the specialized institutes, has completed its sixteenth year. These years have witnessed impressive progress in cancer research and in the effort to bring cancer under control. The combined effects of all resources devoted to this struggle are yielding encouraging results.

Although the number of cancer deaths increases annually, there is evidence to support the opinion that the number would have been much larger had advances not been made in control of the disease. When the cancer death rates are adjusted to take into consideration the difference in the age composition of the population, they show that the cancer death rate increased only 6 points (deaths per 100,000 population) in the 15-year period 1936-1950, as compared with 10 points in the previous 15 years. Even more impressive evidence is available from data secured in the resurvey of cancer morbidity in 10 metropolitan areas first surveyed by the Institute 10 years earlier. When these figures are adjusted for age, they show that the incidence of cancer increased 14 percent in the 10-year period, but that cancer mortality increased only 3 percent.

The search for new knowledge falls into three broad categories: (1) laboratory research; (2) clinical research; and (3) applied research and development. The last category deals chiefly with the application of present knowledge to the detection, prevention, and control of cancer. Work in all three of these areas is conducted directly by the Institute, through research grants to outside institutions, and through cooperative projects involving both the Institute and other organizations.

LABORATORY AND CLINICAL STUDIES

New studies of enzymes are now under way, as a result of earlier successes at the Institute in separating amino acids into their optically active forms. Various tissue enzymes which break molecules containing amino acids into their constituent parts are being separated and studied.

Studies in biology yielded much information on the characteristics and functions of normal and malignant cells. The existence of the Golgi apparatus, a cell component, was definitely established, and Institute scientists have isolated it from various animal tissues.

The production of intestinal tumors by use of a compound related to 2-acetylaminofluorene makes available for study a new anatomical type of experimental cancer, the counterpart of which accounts for a large proportion of cancers in man.

Efforts to elucidate the role of the thymus gland in leukemia have shown that transplantation of thymic tissues from mice of a high leukemic strain will cause a high incidence of leukemia among more resistant hybrid mice. Studies of the cells showed that leukemia originated in the animal receiving the transplanted tissue and not from the transplant itself. A study is underway to learn why leukemia cells, initially vulnerable to certain drugs, not only acquire resistance to the drugs, but may actually become dependent upon them for growth.

Another study has revealed that many cancer patients, particularly those with leukemia, have increased amounts of circulating blood plasma. This observation led to the use of red blood cells instead of whole blood in transfusions, thus reducing hemorrhagic complications following transfusion.

The usefulness of bacterial polysaccharides as anti-cancer agents has been limited by their severe toxic effects. Institute scientists have found, however, that the administration of atropine will reduce the lethality of this material in mice, without reducing its anti-tumor potency. It has also been found that polysaccharides, isolated from normal and cancerous tissues, have an action similar to those from bacterial sources.

This year the Institute continued a number of studies on environmental cancer and prepared to launch new ones. Answers to questions regarding the influence of environment on the occurrence of cancer require both epidemiologic research and chemical, physical, and engineering studies of environmental factors.

STUDIES SUPPORTED BY RESEARCH GRANTS

Grant-supported studies to find and evaluate chemical agents for cancer therapy have added several new agents to the large group which is now available for clinical trial. Two of these, tri-ethylene

phosphoramidate (TEPA) and 6-mercaptopurine (6-MP), produced temporary remissions in acute leukemia. Patients with the myelocytic form of chronic leukemia also were improved by 6-MP. Although these two agents do not cure, they are of some benefit when the patient no longer responds to other forms of therapy.

In tissue culture studies, an agent known as 8-azaguanine has shown an inhibitory effect on cells of a human brain tumor, without apparent damage to normal brain cells. This resistance of normal tissue was found to be due to a protective enzyme. Results of clinical trials with this agent are awaited with interest.

APPLIED RESEARCH AND DEVELOPMENT

Encouraging progress has been reported on a test designed to indicate the presence of cancer in the body, although not its location. Results to date are the best yet obtained with a general cancer test, but further evaluation is needed and is under way. A new blood test for prostatic cancer also shows promise.

The cytologic test as a means of detecting uterine cancer in the female population is being evaluated in a 3-year cooperative project. So far, 100 unsuspected cases have been discovered, or about 3 in every 1,000 women examined.

Another research grant project has produced a nutritional mixture which promises to be of great assistance in maintaining a better state of nutrition in advanced cancer patients who become emaciated chiefly because of their inability to take food. The mixture has no effect on the cancer, but does improve the nutritional status of the patients. A pharmaceutical firm is now making the mixture available commercially.

SUPPORT OF RESEARCH AND CONTROL

The National Advisory Cancer Council recommended 484 research grants in 1953, totalling \$5,111,858, and 82 applied research and development grants, totalling \$1,162,000. Seventeen of the 55 construction projects for which grants were made available in former years were completed in 1953, bringing the total completed to 48. Research fellowships were awarded to 162 applicants.

In addition, grants totalling more than \$2,250,000 were made to 79 medical schools, 41 dental schools, and 6 schools of osteopathy for undergraduate teaching. During the year, 154 physicians, the largest number in the history of the Institute, received training stipends for advanced clinical study in 60 institutions. Five university schools of nursing received grants to study methods for improving cancer instruction. Cancer control programs in the States received financial assistance in the amount of \$3,000,000.

Dental Research

Dental disorders affect more than 90 percent of the American people at some time from early childhood to advanced age. Probably no other disease category affects constantly or recurrently so large a proportion of the population. To advance understanding of the fundamental causes of dental diseases, leading to their prevention, is the challenge accepted by the National Institute of Dental Research.

During 1953, the effects of the fluoridation of public water supplies on tooth decay were again demonstrated in the annual examination of school children in Grand Rapids, Mich. For the eighth year, the study showed a 66.6 percent reduction in dental caries rates in the younger resident children. Older age groups, too, have received striking benefits. For example, dental caries in 16-year-olds, who have been drinking fluoridated water for less than half of their lifetime, was reduced by 18 percent. The study also revealed a marked reduction in the number of missing teeth.

Speculation that body stress may influence the retention and metabolism of fluorine was partly answered in studies of normal and half-starved rats. Since both groups retained approximately the same percentages of fluorine, it would appear that this one condition of stress does not influence the total deposition of fluorine in bones and teeth.

During the past year, a study was made in an area where the natural fluorine in the water supply had been reduced from 8 parts to 1 part per million. Urinalyses of persons residing in the area showed that for several weeks after the water supply had been regulated, the fluorine content of the urine was in excess of that in the water, but later it declined gradually. This indicates that fluorine accumulated by the body on a high intake will be eliminated when the fluorine content of the water supply is regulated at a safe level.

In recent animal studies, a diet of processed cereal foods with little sugar and no hard grain, produced tooth decay strikingly similar to ordinary caries. Hence, a fresh evaluation is being made of caries-producing factors unrelated to dietary carbohydrates and minerals.

During the year, 34 research grants, totalling \$229,607, were recommended by the National Advisory Dental Research Council and approved for payment to 24 institutions in 15 States. The Institute also awarded 11 fellowships totalling \$48,173.

Among the many significant accomplishments of grantees was the observation that fever induced in pregnant rats results in striking defects in tooth enamel of the offspring. Advances were also made in genetic studies on the susceptibility of rats to caries. Susceptible and resistant strains showed definite hereditary differences in tooth morphology and oral bacterial flora.

New Horizons in Heart Research

The National Heart Institute vigorously prosecuted its program on several fronts in the cardiovascular diseases. In research conducted by the Institute itself, new and provocative observations were made, some of which promise to be valuable in the development of new methods of treatment. Through a comprehensive program of grants, the Institute stimulated and supported research in universities and hospitals the Nation over. The training of research personnel and clinicians was advanced through the award of fellowships and traineeships to individuals and teaching grants to medical schools for strengthening cardiovascular education. In programs operated directly by the Bureau of State Services, heart disease control measures and community services throughout the country were aided through grants and technical assistance to the States.

RESEARCH ACCOMPLISHMENTS

The elucidation of arteriosclerosis is a major goal of medical scientists in many institutions. For several years, they have been exploring a concept that various forms of arteriosclerosis may be related to the circulation of protein-fat complexes in the blood that are not present in significant quantities in normal persons. Studies by the Institute have resulted in the delineation of a biochemical system in the body which is intimately related to the control of these substances. The abnormal lipoproteins, it has been found, can be converted into normal forms by administering heparin, an anticoagulant drug. During the year, assay methods were developed for measuring these components, which number at least five, in blood and tissues. Systematic studies of patients can now be undertaken to determine whether deficiencies in one or more of the components can be correlated with the presence of specific diseases.

An intensive search for plant materials affecting the cardiovascular system is in progress, and a number of compounds reported to lower the blood pressure are being investigated. Within the year, Institute scientists have isolated a large number of pure substances, and pharmacological tests are being made to determine their effects. One of these is a colorless crystalline substance isolated early in the year from the leaves of *Rhododendron maximum*. Studies on the structure and nature of action of this blood-pressure-lowering material are being pursued.

Congestive heart failure is characterized by the accumulation in the body of extraordinary amounts of extracellular fluid and, of course, is related to failure in the contraction of heart muscle. The Institute is studying this baffling condition from several points of view. Fundamental studies of the physico-chemical factors which

determine the volume of extracellular fluids have paved the way for clearer understanding of the process. A study of the rate of movement of salts across a living membrane has also increased understanding of these forces. Basic biochemical studies have yielded considerable information about the biological machinery by which energy derived from foodstuffs is converted to a useful form by cells of the heart muscle and other tissues, and is geared into the contractile mechanisms of the heart.

Since it is possible that a deficiency in some chemical regulator in the body may be related to congestive heart failure, studies are under way on a class of compounds known to affect heart action. These compounds are hormone-like substances, called bufotoxins, which are found in several species of toads. They have a characteristic action, not unlike that of digitalis, in restoring contractile force to the failing heart. With the aid of radioactive isotopes, Institute scientists have found that bufotoxins in the toad are synthesized in the body from cholesterol, a substance known for some time to be a precursor of other steroid hormones. These studies illustrate forcibly the interrelation of findings in apparently widely separated fields of medical research.

Significant advances have been made in the surgical treatment of cardiovascular diseases. A unique analysis of the architecture of the heart, for example, revealed new anatomical facts which will be important in determining the desirability of surgical intervention in certain types of valvular heart disease. A more sensitive technique was developed for diagnosing certain congenital heart abnormalities. Other studies have provided information that should enhance the success of arterial grafting.

Research on therapeutic agents has been especially productive. Scientists at the Institute have found, for example, that the compound known as SKF-525A blocks the body mechanism which destroys certain drugs, including those used to maintain a patient's blood pressure during anesthesia. This finding may lead to safer and more efficient use of drugs in treatment.

Notable work was also done with the drug, phenylbutazone. This agent mimics in many ways the action of cortisone and ACTH and has proved useful in gout and rheumatoid arthritis. However it could be very harmful to cardiac patients, since it causes retention of salt and water in the body. The Institute has developed important data which will aid the physician in safely using this valuable therapeutic agent for treatment of cardiac patients.

RESEARCH GRANTS AND SOME RESULTS

The National Advisory Heart Council recommended 461 research grants, totalling \$5,346,399, in 114 institutions in 40 States, the District of Columbia, and 1 Territory. Research fellowships were awarded to

118 applicants, and training stipends to 74 physicians. Teaching grants totalling \$1,400,250 were made to medical schools.

Scientists aided by research grants made steady and substantial progress during 1953 in all major areas of cardiovascular research. Studies on rheumatic fever, for example, are focused both on control methods and on its causes and the conditions under which it occurs. One scientist has found that prompt treatment with cortisone or ACTH, combined with a special diet and other measures, can prevent permanent heart damage in a high percentage of children who have suffered one attack of carditis. Such treatment can also prevent further injury in hearts already damaged.

In studies of the relation of diet to arteriosclerosis, one group of scientists found that if the cholesterol level of the diet is reduced sufficiently, the liver will step-up its normal manufacture of cholesterol. These and other scientists have found that when chickens are given a high-cholesterol diet, the increase of cholesterol in the blood and the deposit of fat in the blood vessels can be controlled by adding ferric chloride or dihydrocholesterol to the diet, or by administering sex hormones.

A new surgical technique was developed by an Institute grantee whereby a plastic rod can be inserted into the heart, thus permitting the surgeon to see and repair holes in the partition between the two sides of the heart. The rapid freezing-drying method for preparing tissues for microscopic study has been adapted for the storage of blood vessels used in grafting operations. The mechanical heart-lung apparatus, which provides circulation of blood for patients undergoing heart surgery, has been used on increasing numbers of patients.

Toward Mental Health

The National Institute of Mental Health is organized as a coordinating and stimulating center to speed the acquisition of new knowledge concerning mental illnesses and to expedite its application throughout the country. No one explanation will be found for all of the mental diseases. Research, therefore, must range from exploration of the structure and function of the nervous system through investigation of the many variables that make up human behavior. It is essential to understand neurophysiological and psychological development, as well as the adaptations of people to their environment under varying conditions.

Meanwhile, methods based on current knowledge must be developed for coping with existing problems. The prevention and treatment of mental disorders and rehabilitation of the mentally ill present a major challenge. Special measures are needed to cope with the problems of chronic alcoholism, drug addiction, mental deficiency, and

juvenile delinquency. Besides continuing research, solution of these problems requires intensified public education and a larger supply of professional personnel.

RESEARCH ACCOMPLISHMENTS

With the opening of the Clinical Center, the scope of research in the Institute will be extended. The general objective will be to contribute to the knowledge of personality development, the theory of communication, and the physiology of mental disorders. Work at the Center will include studies on schizophrenia, emotional disturbances in children, and psychosomatic illness.

Studies have been conducted on the blood supply and physical chemistry of the brain, as well as on the relationships between electrical activity and biochemical changes in the brain. Other studies have been initiated on aging processes in the nervous system and on endocrine activity in mental diseases. These studies will be expanded.

Work on a synthetic substitute for codeine was continued at the Public Health Service Hospital, Lexington, Ky. New uses for N-allylnormorphine have been found. Studies on drug addiction, alcoholism, and rehabilitation are being conducted in cooperation with other institutions.

EPIDEMIOLOGY AND STATISTICS

Statistical data on mental disorders are still far from adequate. The Institute has organized a model reporting area comprising 15 States which care for 64 percent of all patients in State mental hospitals. At a conference this year, 11 of these States reported that they have begun to collect uniform data, analyses of which will determine what happens to patients following their first admission. Surveys have been completed which provide information as to which general hospitals throughout the country accept mental patients and what services they make available. An annual report form on patients and clinic facilities has been developed for psychiatric clinics and is being tested preparatory to nation-wide use.

In cooperation with the Division of Public Health Methods, the Institute is conducting a study of the distribution of functional psychoses in the population of Hagerstown, Md., where the Public Health Service has been carrying on biostatistical studies since 1921. Thus far, no significant differences have been observed in the distribution according to sections of the community, as contrasted with findings in large urban communities where psychoses appear to be concentrated in physically and economically depressed areas. The family life and mobility of persons with functional psychoses are being

studied. Another study deals with the impact of mental illness on the patient's family.

GRANTS AND ACCOMPLISHMENTS

The National Advisory Mental Health Council recommended 121 research grants, totalling \$1,648,671, in 1953. In addition, 228 teaching grants, totalling \$2,696,423 were made to 141 graduate institutions and medical schools. Traineeships, totalling \$1,405,454 were awarded to 671 individuals for graduate professional work.

Scientists receiving mental health grants made many important contributions to the understanding and treatment of mental disease. One investigation in neuroanatomy is concerned with the development of the human cerebral cortex. To learn more about genetic factors in mental illness, a study is being made of 876 twins, 61 to 96 years of age, with special attention to psychotic phenomena in senescence. A new method, known as photic shock, is being utilized with a view to determining the neurophysiological effects of shock therapy. Other research projects receiving grants from the Institute cover a wide variety of problems, including personality development, psychology of group and individual behavior, biology of mental disorder, and evaluation of diagnostic, treatment, and preventive methods.

Several highly productive conferences on alcoholism, assisted by mental health grants, were conducted during the year. They were attended by physicians and allied health personnel, social workers, law enforcement officers, industrial management personnel, and others who must cope with alcoholism in professional, legal, or employment situations.

A study of rehabilitation techniques for mental patients while in the hospital and after discharge has been launched. Special institutes for the study of vocational rehabilitation have been sponsored, as well as studies of juvenile delinquency and mental deficiency.

Throughout the year, the Institute made available to State agencies the services of mental health consultants located at Regional Offices of the Public Health Service. In 1953, the States and Territories increased their support of mental health programs by over \$1,000,000, while Federal grants remained the same as in 1952.

Microbiological Research

Broad gains have been made in recent decades against the communicable diseases, but many serious problems in the field of microbiology remain unsolved. Advances have been predominantly in the knowledge of bacterial and rickettsial infections. Progress against the diseases caused by viruses and fungi has been conspicuously slow.

The approach of the National Microbiological Institute to these problems is through fundamental research. Here, as in other institutions, scientists are seeking an understanding of the borderline that separates life from non-life. They are studying the structure and functioning of the viruses, the smallest substances that can be called "living", and the role of proteins, largest of the "non-living" molecules.

The long-range benefits of such research are of incalculable importance to all the medical and biological sciences. The impact of findings in these areas will be felt not only upon control of the virus diseases, but also upon the study of metabolism, genetics, allergy, and many other fundamental problems.

Within recent years, science has become increasingly aware of the significance of infectious diseases in relation to chronic disorders. Infections that occurred years before have been implicated in the onset of various diseases of the heart and of the nervous system. Future progress against these chronic disorders thus depends in part on more effective control of infections earlier in life.

RESEARCH ACCOMPLISHMENTS

Not infrequently, microbiological research contributes directly to the advancement of knowledge of chronic diseases. This was illustrated in the past year by a study of leukemia at the National Cancer Institute. The leukemic mice used in this study were treated with a folic acid antagonist, given in conjunction with a pyrimidine compound which Microbiological Institute scientists had previously found to be highly active against malaria. Preliminary results of this study have proved encouraging. In another project conducted by a private investigator, beneficial results were reported in treating a group of rheumatoid arthritis patients with chloroquine, a widely used anti-malarial drug developed in this country during World War II.

In the past few years, the need for extensive investigation of bacterial resistance to the antibiotics has been emphasized by the widespread use of these drugs for treating infections. Scientists at the Institute are conducting a number of fundamental studies of the antibiotics. One project deals with the mode of action of penicillin. Here, the binding of radioactive penicillin by normal and penicillin-resistant disease agents is being intensively investigated. It has been found that bacteria strikingly concentrate penicillin and, surprisingly, that normal and penicillin-resistant bacteria do not differ in this respect. About half of the intracellular penicillin is attached to protein.

In other studies, Microbiological Institute scientists have been investigating changes occurring in the central nervous tissue during recov-

ery from paralytic poliomyelitis. They have found evidence that antiviral substances, possibly differing from antibodies, may be produced by damaged or recovering cells. The work of other scientists has suggested that the rapidity of antibody production may affect the subsequent paralysis.

Work was continued in the past year on a new oil-emulsion type of influenza vaccine developed by a scientist at the University of Pittsburgh. In trials on general population groups, Institute workers found that over 95 percent of those inoculated developed antibody response to the vaccine. They also found that the vaccine produces fewer local and general reactions, and holds promise of protection for more than one year from a single dose.

The results of clinical tests on human volunteers in the past year indicate that the new antimalarial drug, Daraprim, is highly active against vivax malaria in extremely small doses. A group of volunteers given 25 milligrams of Daraprim in single weekly doses for 17 weeks showed no evidence of malaria a year after being infected.

RESEARCH GRANTS AND SOME RESULTS

During the year, 233 research grants for microbiological studies in universities and hospitals were recommended by the National Advisory Health Council and approved by the Surgeon General. These grants, amounting to \$2,055,173, went to 108 institutions in 36 States, the District of Columbia, and 3 foreign countries. Forty-six fellowships totalling \$147,926 were also awarded.

During 1953, a number of important findings were reported by grantees. Isoniazid, a new drug being evaluated in the treatment of tuberculosis, was found to produce no adverse reactions in the rhesus monkey. These results are in striking contrast to reported effects on the dog, effects that have been a major consideration in limiting the dosage for humans.

In another grant-supported project, a test was developed for demonstrating specific antibodies to the causative agent of syphilis. This provides an important tool for studying the disease in man and experimental animals.

Significant findings were reported in a study to determine whether fruits and vegetables growing in soil irrigated with polluted water can become contaminated with disease-causing organisms. Such organisms were difficult to isolate from the washings of vegetables grown under those conditions.

Neurological Diseases and Blindness

Nothing testifies so much to neglect of research on the neurological and sensory disorders as the long list of these conditions that are still

unexplainable and incurable. Among them are such well-known diseases as cerebral palsy, epilepsy, multiple sclerosis, and the numerous causes of blindness.

The National Institute of Neurological Diseases and Blindness, although the youngest of the Institutes, is playing an important role in the nation-wide movement to correct this neglect. Research grants administered by the Institute in 1953 supported almost one-third of the projects under way in these fields.

Although research in its own laboratories had to be deferred until the opening of the Clinical Center, the Institute had completed plans for its program in the coming year. Three major neurological disorders will be under study: epilepsy, cerebral palsy, and muscular dystrophy. Four problems in ophthalmology also will be studied: uveitis, glaucoma, cataract, and strabismus.

RESEARCH GRANTS AND ACCOMPLISHMENTS

The National Advisory Neurological Diseases and Blindness Council recommended 126 research grants, totalling \$1,046,335. Fellowships were awarded to 43 applicants and traineeships to 13, at a total cost of \$184,185.

Studies supported during the year showed that retrolental fibroplasia probably is related to the administration of oxygen to premature infants. This condition causes at least half of the cases of blindness in infants today. Another study showed that abnormalities of aqueous veins of the eye are associated with the development of chronic simple glaucoma.

Methods were developed for making electro-encephalographs of the brain activity of unborn infants, in order to estimate the effects of various obstetrical procedures. One drug, vinobarbital, was shown to be hazardous to the child when administered to the mother in doses of 8 grams or more prior to delivery.

The electro-tonometer, developed a year or two ago, is now being used in intensive studies of glaucoma. An artificial cornea has been developed and is being evaluated in experimental animals.

Public Health in the World Today

The Bureau of State Services is the principal channel through which the Public Health Service works with local governments and international organizations to promote public health in the world today. The Bureau's main assignment is to assist the States and Territories in their efforts to furnish effective health services to their citizens. Its international activities help to extend the knowledge and practice of modern public health methods among the free peoples of the world.

As health conditions in other areas improve, the American people themselves benefit in many ways.

In all its work, the Bureau of State Services maintains close and fruitful liaison with national voluntary organizations in health and welfare fields, with universities, research institutions, international agencies, and other Federal agencies. The regional staffs of the Public Health Service are easily accessible to the States to make sure that the patterns of mutual assistance are as effective as possible.

Grants to the States

The Division of State Grants is responsible for coordinating the administration of State grants-in-aid in the Public Health Service. In carrying out its functions, it works with a number of national organizations, such as the Association of State and Territorial Health Officers, the American Public Health Association, the Association of Business Management in Public Health, the Public Health Conference on Records and Statistics, and the National Health Council.

A total of \$34,500,000 was appropriated to the Public Health Service for grants to the States in 1953, exclusive of grants for hospital construction. The appropriation for construction grants amounted to \$75,000,000. Payments for these purposes were made in the following amounts:

General health services.....	\$12,999,970
Veneral disease control.....	7,166,089
Tuberculosis control.....	5,300,000
Mental health services.....	3,049,736
Cancer control.....	2,896,897
Heart disease control.....	1,348,104
Hospital survey and planning.....	98,011
Alaska grant.....	537,000
Industrial waste studies.....	22,723
Hospital construction.....	109,204,410

Table 4, page 157, shows the distribution of these sums by State and Territory.

STATE AND LOCAL PARTICIPATION

The Division continued to develop nationwide data regarding public health resources and changing trends in public health practice. For example, a study was made of State laws, regulations, and practices applicable to the establishment of local health departments. A new study of the salaries of State and Territorial health workers showed a 6-percent general increase since 1950 in average salaries of State health workers. Territorial salaries in Alaska and Hawaii compared favorably with salaries paid by State health departments. Salaries in Puerto Rico and the Virgin Islands were relatively low.

An analysis of the salaries of local health workers showed that in health jurisdictions of less than 500,000 population, compensation and rates of increase are significantly below State levels. Nonofficial agencies pay the highest salaries for local public health nursing directors and boards of education pay the highest staff nurse salaries. The study of State health functions, launched several years ago, was brought to conclusion with publication of Parts Three and Four of "The Distribution of Health Services in the Structure of State Government."

Although Federal health grants to the States in 1953 represented a decrease of about \$3.4 million, or 9 percent, below the 1952 figure, State and local funds for health departments increased by about 5 percent in 1953, to an estimated total of \$215 million. The increase totalled about \$10 million spread among 41 States and Territories, with 44 percent of the increase concentrated in 3 States. Only 12 States and Territories reported decreases and these totalled more than \$500,000, over half of which occurred in a single State.

Full-time local health services in all parts of the United States continue to be a major goal of State and local governments. About 72 percent of the American population now has full-time health services administered by local organizations and an additional 16 percent is so covered by State district organizations. Some type of full-time health service is available in 2,000 of the Nation's 3,070 counties. Many of the organizations providing these services, however, are still without adequate staffs.

During the year, the Division of State Grants provided consultant services to a number of States on the single-fund accounting system for Federal grants. This system has been proposed in order to simplify State budgetary and disbursement procedures. At the request of the local health officers, studies were made of the records and reports of the health departments of Portland, Me., and Carroll County, Md., and recommendations for improvement were made.

A Ledger of Life and Health

The National Office of Vital Statistics is responsible for developing the Nation's statistics on birth, death, marriage, divorce, and related facts of life. The records are collected by a network of local, State, and Federal agencies. The National Office of Vital Statistics coordinates these data, analyzes them, and presents them in a uniform system so that the statistical picture of one area may be compared with that of another, and all with the statistical picture of the population as a whole.

Not only health agencies require these data. The Congress, State legislatures and local governments, school systems, welfare agencies,

other Federal agencies, and many business enterprises depend on vital statistics for decisions affecting every American. A few of the special studies undertaken in 1953 by the National Office of Vital Statistics are reported here. They illustrate the constant effort to increase the accuracy, completeness, and usefulness of the Nation's ledger of life and health.

LIFE TABLES

Work went forward on the preparation of the official United States life tables which are revised after each decennial census. The life tables make it possible to estimate the numbers of people in each age group who will be alive in each coming year. Pension plans, insurance rates, and compensation payments, as well as plans for school enrollments and selective military service, are based on the official life tables.

BIRTH REGISTRATION

A nation-wide test of the completeness of birth registration, made in connection with the 1950 census, has been completed. The study showed that nearly 98 percent of the births in the United States are being registered. This represents a marked improvement over the preceding test in 1940, when only 92.5 percent of the births were registered and only 3 States achieved 99 percent completeness. The problem of low registration is now a residual one and efforts are being made to improve the situation. A number of States have begun surveys to determine the reasons for failure to register births, so that in the future each infant will be able to have the official birth certificate which every American needs many times in later life.

MORE EFFICIENT METHODS

The National Office of Vital Statistics receives about 5 million transcripts of birth, death, and stillbirth records from the States each year. The process of checking, transferring to punch cards, and tabulating the transcripts normally is completed in about 18 months after the close of year in which the events were recorded.

The majority of State offices of vital statistics use punch cards and prepare tabulations for their own use. In the interests of economy and efficiency, the National Office of Vital Statistics and some of the States are testing methods for joint use of improved processing techniques. Since 1951, for example, Illinois has been sending punch cards of birth records, instead of transcripts; the punch cards can be run on the tabulating machines of the National Office of Vital Statistics, thus speeding the process. Three additional States, Michigan, Mississippi, and Oregon, adopted this plan in 1953. Oregon is taking a

further step by producing on a trial basis final tabulations of its birth data according to specifications required for use in the National Office of Vital Statistics.

Through the Public Health Conference on Records and Statistics, the National Office of Vital Statistics provides a forum in which Federal and State vital statistics officials can solve many joint problems. The Conference is composed of Federal and State personnel concerned with these problems and meets biennially. In 1953, the Conference adopted mutually determined plans for improving the vital records of the Nation's growing population.

Health Education of the Public

The Division of Public Health Education provides technical assistance to other parts of the Public Health Service, the States, schools of public health, and other educational institutions. The aim is to help the administrators of various public health programs develop sound educational activities that will promote cooperation of the public in measures designed to protect or improve health. The Division also conducts a program of studies in the fields of educational and social psychology designed to produce new findings that can be applied in the development of effective methods for health education.

ASSISTANCE TO STATES

During the year, public health educators in 4 regional offices of the Public Health Service and the staff at headquarters provided consultant services for 33 States and 2 Territories. In some States, surveys were conducted at the request of State health officers and recommendations were submitted to them for the development of a State public health education program. In others, assistance was given in such special fields as in-service training of local health educators and community-wide education in the fields of dental health, tuberculosis control, cancer, home accident prevention, and mental health. In addition, the field and headquarters staff of the Division met with the State Directors of Health Education to develop mutually acceptable plans for activities in the coming year.

At the request of the American Nurses Association, consultant services were provided to a committee of the Association concerned with ways to improve professional relations and services in States where white and colored nurses are being integrated into a unified public health nursing staff. Consultation was also provided to the American National Red Cross in the development of an evaluation study following a personnel reorganization.

HEALTH EDUCATION STUDIES

A study was begun in cooperation with the National Tuberculosis Association to identify the personal and situational factors which influence people to participate in tuberculosis control programs. During the year, interviews were completed with 1,200 adults in Boston, Cleveland, and Detroit. Data from this study should point the way toward more efficient public health methods in tuberculosis control.

A detailed report on the methods and findings of several studies conducted by the Division was published during the year. Another study on the sanitary engineering profession is described on the following page.

Public Health Nursing

The Division of Public Health Nursing continued to work with the States and other organizations employing public health nurses in solving the problems related to this most numerous group of professional health workers. The Biennial Conference of State Nursing Directors met during the year in Washington, D. C. Nearly all State, Territorial, and Insular health departments were represented.

At the request of the State Directors, the Division of Public Health Nursing made a study of the consultant services available to State and local nursing staffs. The purpose of this study was to assist State health departments in planning the nursing services required in such public health programs as chronic disease control, hygiene of the aging, and home accident prevention. The findings also will be useful guidelines to schools of public health and other institutions in developing the curricula for consultant nursing in these fields. The State Nursing Directors also requested assistance in the preparation of more useful job descriptions and personnel records.

ANNUAL CENSUS OF PUBLIC HEALTH NURSES

The Division of Public Health Nursing has been collecting and tabulating the data for the Annual Census of Public Health Nurses since 1938. The 1953 census reflected trends in the employment of public health nurses that have been observed throughout the period. Table 5, page 158, shows the numbers of nurses employed in public health work on the first of January in 1938, 1943, 1948, and 1953, according to employing agency.

The figures for each of the 5-year intervals show a progressive increase in the numbers of public health nurses employed by State agencies, local official agencies, and national agencies and universities, with the major increases in the last period, 1948-53. The major increase in local boards of education occurred in the same period, after a slight decline in the early years of World War II. Recent

censuses show that more public health nurses are being employed to teach child hygiene courses in colleges and universities that prepare public school teachers.

During the 15 years covered by the census, including the war period, there has been encouraging improvement in the provision of full-time public health nursing services in rural areas. In 1938, there were 1,057 counties providing no full-time public health nurses for their rural areas, but in 1953 the number had declined to 671.

Engineers and New Environmental Problems

Since sanitary engineers and sanitarians play an important role in the improvement of man's environment, the Public Health Service, through the Division of Engineering Resources, continued its interest in the supply and qualifications of these essential health workers. The Nation's shortage of engineers, including sanitary engineers, continued in 1953. However, the ratio of graduates in sanitary engineering to total engineering graduates was greater in 1952 than in any year since 1940. In the postwar years there has been a substantial increase in the number of master's and doctor's degrees awarded in sanitary engineering. The figures for 1952 show a higher rate of increase in the number of master's degrees awarded than in the corresponding rate for the bachelor's degree.

A study was undertaken—in conjunction with the Division of Public Health Education—to identify the factors which influence the choice of sanitary engineering as a career and which operate to keep graduates in the field. During the year, interviews were completed with 190 sanitary engineers who graduated within the 40-year period 1910-1949 and with 86 students majoring in sanitary engineering. A previous study had shown a high rate of loss to the profession, in that 51 percent of the graduates are currently employed in fields other than sanitary engineering. The chief factor which brings about the change was found to be the failure to enter the field immediately upon graduation—usually because of the lack of job offers. Since there are sanitary engineering jobs available in increasing numbers, the problem comes down simply to compiling job information and making it available to college seniors by the middle of the academic year.

A study of undergraduate education for sanitarians was completed in 1953. Sixteen colleges and universities now offer training in sanitary science at the undergraduate level. All but four of these courses have been initiated since World War II. Since 1931, 397 men have graduated with a major in sanitary science; of these, 364 completed their undergraduate work since the end of the war.

RADIOLOGICAL HEALTH

The Division of Engineering Resources assists State and local health agencies in developing radiation control methods and in training their personnel to play an essential role in dealing with radiological health problems. During the year, a team composed of Public Health Service and New Jersey State Department of Health personnel completed a survey of the sources and locations of excessive radiation exposure in New Jersey. A pilot demonstration on the control of such exposures, especially in industry, is being developed and control methods are being put into effect.

A group of 35 Public Health Service officers participated in the Off-Site Monitoring Program conducted by the Atomic Energy Commission and the Department of Defense during the tests of atomic weapons in Nevada during 1953. A substantial amount of data was collected for the assessment of the possible health hazards in atomic debris.

HYGIENE OF HOUSING

A study comparing housing conditions revealed in the 1950 Census with those revealed in 1940 showed that there has been no change for the better in certain housing deficiencies. Approximately the same number of dwellings (2 million) were rated as overcrowded in both years, while the same number of dwellings (7.4 million) were without private flush toilets. As of January 1, 1953, 10 State health departments and about 100 local health agencies had actual housing programs.

DEFENSE COMMUNITY FACILITIES

The Defense Housing and Community Facilities and Services Act of 1951 (P. L. 139, 82d Congress) was extended by Congress for one year. Funds for Public Health Service assistance to communities, however, were exhausted by December 31, 1952. During the period that appropriations were available, the Public Health Service allocated \$7,944,414 to 33 eligible communities in 20 States for 33 sanitary engineering projects and 6 hospital projects. The total construction cost—Federal and local—of the sanitary engineering projects is estimated to amount to \$15,117,257; of the hospital projects, \$5,995,223. When completed these projects will provide 6 hospitals, 23 sewage disposal plants, 11 water treatment facilities, and equipment for 1 refuse disposal project.

Interstate Problems in Sanitation

The Division of Sanitation is responsible for those Public Health Service activities designed by Congress to protect the public from

insanitary conditions to which they may be exposed in interstate travel. These include the maintenance of sanitary conditions aboard trains, planes, and buses operating across State lines, as well as aboard American flag vessels in foreign and interstate commerce. In addition, the Division reviews plans for the construction of new conveyances and servicing facilities so that proper sanitation standards may be maintained. The Division also cooperates with the States and the industries concerned to maintain the sanitary quality of milk, milk products, and shellfish that are shipped across State lines.

MILK SANITATION

Laboratory studies have been completed in a cooperative research project with the University of California to determine the time-temperature combinations necessary to destroy the organisms of Q fever. The project has been supported in part by the Milk Industry Foundation and the Dairy Industries Supply Association. During the coming year, the laboratory findings will be tested under conditions simulating commercial pasteurization.

The National Program for Interstate Milk Shipments continued to expand during the year. By June 30, 1953, 358 interstate shippers located in 30 States were participating on a voluntary basis. Through joint certification of these supplies by the Public Health Service and the States, both the shippers and the communities requiring imported milk supplies will benefit. The Public Health Service also cooperated with the International Association of Milk and Food Sanitarians and the Sanitary Standards Subcommittee of the Dairy Industry Committee in the development of new standards for dairy equipment. The work of this group has saved the milk and milk-products industries many thousands of dollars every year.

PROTECTION OF TRAVELERS

Nearly 2 million persons travel on trains, planes, and ships in the United States each day. To make sure that the food and water served aboard these interstate carriers are safe, the Public Health Service and cooperating State health departments in 1953 inspected more than 1,200 water supplies, 3,000 watering points, 600 milk sources, 400 sources of frozen desserts, and 400 commissaries. Certificates of Sanitation were also awarded to 617 vessels. The average sanitation rating achieved by all railroad dining cars in 1953 was 88.5 percent, as compared with 86.7 percent in 1952. This year, the Erie Railroad became the first major railroad to receive a Certificate of Sanitation for every one of its dining cars.

SPECIAL PROJECTS

At the request of the National Council of the Boy Scouts of America, the Public Health Service assigned medical and sanitary engineer officers to plan and supervise the public health provisions for the 1953 Jamboree at Santa Ana, Calif. Fifty thousand boys were expected to travel from all parts of the country at the peak of the vacation season. Difficult problems had to be anticipated and solved with respect to adequate and sanitary dining-car and sleeping-car service, sanitary facilities at the camp site, inspection of milk, frozen desserts, and other food supplies, and control of communicable diseases. The Division of Sanitation also cooperated with the Health Department of the District of Columbia in safeguarding the health of about 8,000 persons who lived in Pullman cars in the railroad yards during the week of the Inauguration of President Eisenhower.

HOME ACCIDENT PREVENTION

The Public Health Service continued its close cooperation with the National Safety Council, the States, and other agencies in a concerted effort to reduce deaths and serious disabilities due to home accidents. In January 1953, the University of Michigan School of Public Health was host to the First National Conference on Home Accident Prevention, with the National Safety Council and the Public Health Service as co-sponsors. The Conference was attended by more than 100 key workers in home accident prevention, representing Federal, State, and local agencies, voluntary associations, and various industries.

A study of home accidents initiated by the Public Health Service in Washetaw County, Mich., has been completed. It provides much-needed data on the causes, frequency, and severity of such accidents.

During the past two years, the W. K. Kellogg Foundation has been financing four demonstrations in home accident prevention as a function of the local health department. These projects were planned and supervised by the Public Health Service, and are now being operated without assistance by the local health departments in Cambridge, Mass., Mansfield, Ohio, Kalamazoo, Mich., and San Jose, Calif. The success of these pilot studies has resulted in the allocation of funds by the Foundation for demonstrations of State home accident prevention programs in the health departments of California, Georgia, Kansas, Kentucky, Maryland, Massachusetts, North Carolina, and Oregon.

Research on Environmental Problems

The Environmental Health Center at Cincinnati, Ohio, made several outstanding contributions through its research and development program during the year. The Center also continued its field investigations, training program, and special services to the States.

DETECTION OF EXOTIC CHEMICALS

One of the most perplexing and costly problems for municipal engineers is the presence in water supplies of chemicals from industrial wastes. These substances are not eliminated in ordinary water treatment processes and it has been impossible up to the present time even to identify and measure them. In some cities, the cost of treating the water to overcome undesirable effects is prohibitive, and the available methods are not fully successful in reducing the offensive odor and taste imparted by the chemicals. As yet, relatively little is known about the effects of these extraneous substances on human health.

During the year, the Environmental Health Center developed a method to identify and measure some of these chemicals. The method is based upon the ability of the chemicals to absorb infra-red light. It was found that even microscopic quantities react in a characteristic pattern. The results of this research should lead to the development of standard curves for chemicals in industrial wastes. The practical outcome would be that city engineers could quickly and economically identify the offenders. Then, referring to their State inventories of industries discharging wastes into the water source, they could promptly bring about control.

At present, the Center is studying the applicability of the infra-red technique to the rapid identification of classes of bacteria. If this proves feasible, the potential value of the membrane filter will be greatly enhanced. Although the filter provides a simple means of collecting bacteria in water supplies for examination, the lack of a rapid means of identification of the micro-organisms has restricted its potential value in combating the massive contamination of water supplies by natural disasters or enemy action. The usefulness of the infra-red technique will also apply to combating chemical contamination of water supplies in emergencies.

RADIOACTIVE WASTES

Laboratory experiments and tests in a pilot water plant were made at the Oak Ridge National Laboratory to determine the efficiency of various processes for removing radioactive wastes from water. So far, it has been found that the processes used in the majority of municipal waterworks are of limited effectiveness.

A study was made at the request of the Utah State Health Department to determine whether radiation exposures were the cause of unexplained deaths of sheep grazing in the southwest part of the State. The results showed significant exposure of the animals to radiation, particularly as evidenced by radioactive iodine in the thyroid tissues. However, the findings neither confirm nor deny the possibility that the deaths were due to fall-out of fission products in the testing of

atomic weapons. The end of the year also brought to a close two and one-half years of field work on the effects of radioactivity on aquatic life in the Columbia River.

FIELD INVESTIGATIONS

Industrial waste studies were completed in four establishments, each dealing with a different product and different processes. The source, volume, and characteristics of wastes were studied in each plant, as well as the existing methods for treatment, and the possibility of reducing the wastes by new methods was explored. Other field studies were completed on household sewage disposal systems, household detergents, and the bactericidal effectiveness of certain compounds used in waters of different chemical composition.

TRAINING AND SPECIAL SERVICES

Twenty-four training courses were conducted at the Environmental Health Center during 1953, with 357 persons enrolled from 35 States and 4 foreign countries. The number of technical representatives from various industries increased substantially. The specialized training offered by the Center deals with subjects not yet taught in the colleges and universities. For example, one of the new courses offered during the year was an advanced course on radiological health for industrial hygiene personnel. Assistance was given to State agencies in organizing and conducting 28 training courses in sanitation and radiological health. During the year, 24 foreign engineers, physicians, and research scientists spent 125 days at the center for observation, conference, and short courses of instruction. At the request of 24 States, the Center evaluated the laboratory practices of 33 laboratories in the examination of water, milk, and foods.

Water Pollution Control

A disastrous drought during 1953 in the southwestern States has attracted new attention to the Nation's growing problem of water resources. The best evidence of wide-spread concern is that 37 State legislatures considered special legislation related to water use and conservation during their 1953 sessions. At the close of the fiscal year, 24 of these States had enacted laws which ranged in scope from measures for the correction of local conditions to comprehensive provisions for water use, including water pollution control.

Many areas can alleviate the water shortage by the development of new sources of ground water and the provision of additional storage facilities. Basic, long-range solutions, however, must include measures to control pollution of present and future sources so that they may be kept suitable for repeated use. If the Nation's water resources are to

be protected in time to meet the growing needs, the control of pollution from cities and industries must be greatly accelerated.

CONSTRUCTION OF FACILITIES

According to data collected by the Division of Water Pollution Control, the construction of municipal sewage treatment plants reached a 10-year peak in 1950, with an expenditure of \$203 million for that purpose. There has been a decline since that year, with a total of \$137 million in construction contracts awarded for public sewage treatment plants in 1952. This sum represents slightly more than one-fourth of the annual expenditure believed necessary to meet current needs. More than 80 percent of the new plants constructed in 1952 were in cities of 25,000 population or less. These plants accounted for about 45 percent of the total expenditure.

In 1950, the States reported that 2,793 new waste treatment plants, 98 replacements, and 591 additions or enlargements were needed in industrial establishments. More than 5,500 additional establishments were discharging wastes, but the treatment requirements for these were unknown. Although data are not available to estimate improvement in the abatement of industrial waste pollution since 1950, the visible evidence of the pollution of the Nation's streams indicates that progress is far from satisfactory. There is an increasing awareness, however, on the part of many industries as to their responsibility for preventing water pollution.

Top management of the Nation's industries is cooperating in a joint attack on these problems through the National Technical Task Committee on Industrial Wastes. Committees representing the food, mineral, chemical, and other industries bring to bear the best technical talent of industry on the common problems of each group. The Public Health Service provides specialized assistance and consultative services and acts as a clearing house for the interchange of technical information and research.

ABATEMENT PROGRAMS

In some parts of the country, excellent progress is being made by State and interstate pollution abatement programs. The waters of the Delaware River, for example, are being improved through the construction of new treatment works at Philadelphia. Major additions are being made to facilities in New York City, which will reduce pollution in surrounding waters. Marked improvement of conditions on the Ohio River below Cincinnati will follow completion of new treatment facilities in that city. A large interceptor sewer and treatment plant, serving municipalities and industries along the Raritan River, will do much to restore that once beautiful stream.

Concerted efforts for installation of municipal and industrial waste facilities in the Willamette River Basin have been so successful that citizens are beginning to enjoy fishing, boating, and even swimming in areas long closed to recreation.

Basic water pollution data required for preparation of the comprehensive programs directed by the Water Pollution Control Act have been assembled in cooperation with the States. Preliminary data were published in 15 drainage basin reports, and supplementary working documents have been issued for 38 sub-basin areas.

At the close of 1953, the Surgeon General had approved comprehensive water pollution control plans for the following major river basins: the Yakima River, the Humboldt and Central Nevada Rivers, the Red River of the North, and the Maumee River. Twenty additional programs were in final stages of development, and an equal number were well on the way to completion.

Promoting the Health of Workers

The Division of Occupational Health is concerned with the special health problems which affect more than one-third of the population—the millions of Americans who work in mines, factories, laboratories, offices, and other places of employment. The control of health hazards such as exposure to toxic gases, fumes, and dusts, to abnormal heat, humidity, noise, glare, and radiations, is essential to the health protection of a large proportion of these people. However, environmental control is only one aspect of the total problem of promoting the health of workers. There is growing recognition on the part of industry, labor organizations, and governments that the worker's physical, mental, and social fitness, his home and community life, are important elements in his occupational efficiency. More attention is being paid to the workplace as a useful factor in the prevention of chronic disease and mental disorders.

HEALTH SERVICES IN INDUSTRY

At present, only about 1 in every 6 employed persons has health services available at the workplace. There is, however, increasing awareness that preventive and emergency medical services on the job provide many benefits to workers, employers, their communities, and the Nation. The number and variety of plans now in operation throughout the country give evidence that employee health services are reaching more workers than ever before.

The Division of Occupational Health has contributed several studies on health services in industry. During the year, work was completed on a report describing ten plans established and financed by employee's health and welfare funds or jointly by management and labor unions.

A second study completed during the year dealt with occupational disease reporting; it is expected that this report will lay the groundwork for the development of adequate reporting systems.

RESEARCH ON OCCUPATIONAL DISEASES

The major emphasis in research on occupational diseases is on engineering, medical, toxicological, and analytical studies in the field and laboratory. During the year, studies of occupational dermatoses were concerned with the irritant and sensitizing effects of various chemicals, fabrics, leathers, and impregnumis. Substantial progress was made in special studies of cobalt, vanadium, and uranium. Methods and procedures were developed for the identification of these substances in body tissues and fluids and for the collection and determination of air borne contaminants. New and improved instruments and methods were developed for the collection and quantification of industrial dusts.

Pneumoconiosis

At the request of the California State Department of Public Health, the Division is assisting in a comprehensive study of pneumoconiosis among workers in the mining and processing of diatomite. The field work of this industry-wide study progressed during the year in California and will be extended to other States to provide an adequate sample of the variations in processes and the different sources of diatomite deposits.

Excessive Noise

A study of industrial noise was launched during the year in the prison industries which provide a wide variety of operations with exposures to noise at the desired sound levels and in a wide range of frequencies. Data of this sort are essential for the development of standards whereby harmful exposure to noise may be controlled in the plant.

Technical Services

The Division continued to provide technical services to Federal, State, and local agencies, industry, labor organizations, universities, and other groups concerned with the health of workers. During the year, 12 State occupational health programs were reviewed and reports made to the States concerned.

New Directions in Venereal Disease Control

This was a year of major change for the Division of Venereal Disease and State and local programs. Since the development and per-

fection of penicillin therapy, it has become increasingly possible to treat venereal infection on an outpatient basis. During the year the transition to outpatient treatment services was completed. In 15 States, Federal aid to rapid treatment centers was terminated, with the expectation that comparable services would be supplied by outpatient prevention and control centers. By the end of the year, 42 of these centers had been established in 16 States and the District of Columbia.

WORK IN THE STATES

Health departments continued to refine and improve the contact investigation as the most effective procedure for finding cases of venereal disease. In addition, mass serologic screening programs were employed among selected groups in areas of high syphilis prevalence. In some metropolitan areas, these selective testing surveys revealed rates of positivity ranging from 6 to 13 percent.

A new plan of attack on gonorrhea was devised and demonstrated in the District of Columbia, and has been adopted by other cities with high gonorrhea rates, including Philadelphia and Memphis. The plan is known as "speed-zone epidemiology". It involves the use of telegrams and prompt field investigations to place females with gonorrhea under treatment within 72 hours of interview with the male patient.

Special project grants were made to 39 States, the District of Columbia, Alaska, Puerto Rico, and the Virgin Islands. These funds supported rapid treatment centers, prevention and control centers, case-finding, and field studies, chiefly in military and defense areas.

VENEREAL DISEASE STATISTICS

Although 1953 was another mobilization year, venereal disease rates among military personnel in the continental United States were held in check. Public clinics reported the admission of 345,000 cases of all types of venereal disease, of which 279,000 had not been treated before. Health department staffs located an average of 268 contacts per 100 cases of primary or secondary syphilis. Epidemiologic investigations, totalling 458,000, brought to treatment 42,000 cases of syphilis and 72,000 cases of gonorrhea.

A total of 156,000 cases of syphilis was reported among civilians in the fiscal year 1953, a decrease from 169,000 in 1952. Reported cases of gonorrhea totalled 245,000, approximately the same number as reported in 1952. About 5,500 cases of other venereal diseases were reported. The estimated syphilis mortality for the calendar year 1952 was 5,700 deaths. The latest available data on infant mortality due to syphilis provide an estimated rate of 2 per 100,000 live births in 1951.

VENEREAL DISEASE RESEARCH

The Venereal Disease Research Laboratory at Atlanta, Ga., has pushed steadily forward its studies on the standard serologic tests. In cooperation with the Medical Center at Hot Springs, Ark., the laboratory developed methods of freeze-drying serums for use in daily control of laboratory testing procedures, so as to assure a constant standard of excellence in routine testing.

A long-term study, begun twenty years ago in Macon County, Ala., to determine the results of untreated syphilis in the male, has been completed. Based upon records of 436 Negro men with syphilis and a comparable group of 204 uninfected Negro men, the study has enlarged medical knowledge of the outcome of untreated syphilis and provided important information on the conduct of long-term studies of chronic disease. Comparison of the life expectancy of the syphilitic group with that of the control group showed that untreated syphilis is associated with an average life expectancy 15 percent lower than that of the group without syphilis.

In cooperation with the New York State Department of Health and Penal System, the Division is studying the results of treatment of latent syphilis among men in Sing Sing prison. A group of men in Sing Sing who were treated with arsenic and bismuth 10 or 20 years ago have been under continuous observation for signs of late complications of syphilis. The medical records of this group, 5 to 10 years after their treatment had been completed, are being compared with that of a second group of prisoners who were treated for latent syphilis with penicillin and have been observed for 5 to 10 years. The study provides an important opportunity to evaluate the results of penicillin therapy in latent syphilis without waiting 15 or 20 years for results.

Penicillin preparations which maintain effective blood levels for longer periods of time have been produced and evaluated in rapid succession since 1943. The most recent of these is N,N'-Dibenzylethylenediamine dipenicillin G (bicillin). Preliminary results of evaluation in several rapid treatment centers showed that a single injection of 2.4 million units of bicillin retains therapeutic blood levels for a minimum of 16 days, and that it equals or perhaps surpasses other treatment schedules in early syphilis.

In 1945, the Division set up a study of the long-term results of penicillin therapy in a special group of patients selected to ensure effective follow-up over a number of years. To date, 85 percent of the 1,570 "Blue Star" patients have remained under observation for 5 years or longer. The data from this study have added materially to medical knowledge of what may be expected of penicillin therapy in syphilis. In addition, the study provides a valuable methodology for the long-term evaluation of therapeutic agents and techniques in diseases other than syphilis.

TECHNICAL TRAINING SERVICES

The Division continued its services for the training of public health workers in the epidemiology, diagnosis, and treatment of venereal disease. The staffs at Atlanta, Ga., Chapel Hill, N. C., and Hot Springs, Ark., and at headquarters in Washington, D. C., took part in the training services. Three formal courses in serologic testing were given at the laboratory in Atlanta.

Toward Tuberculosis Control

The Division of Chronic Disease and Tuberculosis continued its services to the States and voluntary agencies in a joint effort to reduce tuberculosis to a point where it will no longer be a major cause of death and disability in the United States. The cost of tuberculosis is high, whether measured in deaths, in shortening of working life, or in the costs of treatment and prevention of the disease. It is conservatively estimated that each case of tuberculosis costs society \$30,000, including loss of income due to premature death.

In 1952, about 110,000 new cases of tuberculosis were reported to State health departments, a reduction of 9,000 since 1951. Tuberculosis deaths in 1952 totalled 25,000, as compared with 30,000 in 1951. These striking reductions are encouraging.

THE X-RAY SURVEYS

The extensive casefinding campaign, introduced by the Public Health Service at the beginning of the nation-wide control program in 1944, has been an important factor in the rapid decrease in tuberculosis. Many community programs, using small-film chest X-ray equipment, have been conducted with the help of Public Health Service staff and facilities. During the 6-year period, May 7, 1947 to June 30, 1953, more than 7.5 million X-rays were taken in 25 areas with a combined population of 11.5 million.

Although this phase of Public Health Service assistance to the States in tuberculosis control will terminate within a few months, many States and communities are planning to conduct their X-ray campaigns without large-scale Federal aid. The State Legislature of Delaware, for example, has appropriated sufficient funds to permit completion of that State-wide program.

STUDIES IN TUBERCULOSIS CONTROL

The evaluation study of isoniazid in the treatment of tuberculosis has entered its second year. The 22 cooperating hospitals now have data on 1,500 patients treated with isoniazid alone, in combination with streptomycin, or with streptomycin and para-aminosalicylic

acid (PAS). First results of the study indicate that the combination of streptomycin and isoniazid, in the dosage used in the study, was more effective than isoniazid alone. An attempt is now being made to determine whether the therapeutic effects of isoniazid alone can be enhanced by increasing the dosage.

Long-range studies to evaluate the immunizing capacity of BCG were continued in Puerto Rico and the Virgin Islands, on Indian Reservations, and in certain special institutions. More than 300,000 persons are in the population groups under study.

A study to evaluate the effectiveness of tuberculin testing as a case-finding technique in rural areas has been developed in cooperation with the Georgia State department of health. Three counties, Columbus, Muscogee, and Harrison, are participating in the study which involves tuberculin-testing of all first grade children, with followup and chest X-ray of household contacts of children who produce a strong positive reaction.

CHRONIC DISEASE CONTROL PROJECTS

During the year, the Division conducted several demonstration projects in the control of cardiovascular diseases. The American Heart Association, the National Tuberculosis Association, and the Public Health Service issued a joint statement endorsing the use of small-film chest X-rays to discover heart abnormalities, concurrent with tuberculosis X-ray surveys.

A demonstration of heart disease control within the framework of a local health department has been completed at Charleston, S. C. After 4 years operation by the Division of Chronic Disease and Tuberculosis, most of the activities were easily continued by the Charleston County health department and other local agencies.

Cooperation was continued with the American Heart Association and the Children's Bureau in the field of rheumatic fever prevention. During the year, the Council on Rheumatic Fever and Congenital Heart Disease of the Association issued a statement emphasizing the effectiveness of daily doses of sulfonamides or oral penicillin in preventing the recurrence of rheumatic fever.

In cooperation with the University of California Medical School and the Institute of Medical Research of the Cedars of Lebanon Hospital, the Division launched a research project at the Lockheed Aircraft Corporation plant in Burbank, Calif. The purpose of the study is to determine the effectiveness of certain tests in predicting the amount of energy that individuals with heart disease may safely expend while working. Answers to such questions will be valuable in the proper placement of workers with cardiac disease.

Diabetes Projects

A demonstration in diabetes control was conducted in Dallas, Tex., following a community-wide tuberculosis survey in that city. The local health department has assumed responsibility for community diabetes services. A follow-up study of approximately 400 individuals in Oxford, Mass., who were first tested for diabetes in 1947, was continued during the year. In the search for better diagnostic tools, studies at Charleston, W. Va., and Boston, Mass., showed that the addition of sodium fluoride and thymol to blood specimens delays glycolysis. If this technique proves to be effective, it should be possible to introduce tests for high blood-sugar levels in connection with laboratory procedures on blood samples taken by health departments for other purposes.

Multiple Screening

A project sponsored by the Division at the District General Hospital, Washington, D. C., during the year aims to evaluate the effectiveness of multiple screening techniques in detecting conditions that otherwise are missed in routine general hospital admissions. After screening, all patients in the project were given a complete diagnostic work-up in order to uncover inaccuracies in the screening tests. Studies of obesity and screening tests for cardiovascular disease were emphasized.

REHABILITATION DEMONSTRATION

Three years ago, a cooperative demonstration in physical medicine and rehabilitation was established at the District General Hospital, Washington, D. C., by the District of Columbia departments of health and vocational rehabilitation, and the Public Health Service. The project has been so successful that the District of Columbia has taken it over and will continue its operation in the future. The average length of stay of patients referred to the Department of Physical Medicine and Rehabilitation by the orthopedic service showed a spectacular decline from 52 days in 1949, the year before the demonstration was launched, to 23 days in 1952. The demonstration also has been a valuable facility for orienting health department personnel from other parts of the country in the values of physical medicine and rehabilitation, especially in the use of simple equipment and devices for home care of patients.

Communicable Disease Control

So long as infectious diseases exist and the means for their spread are at hand, public health departments must stand ready to suppress serious epidemics of diseases still prevalent and to combat the re-intro-

duction of infections into areas now free of them. The Communicable Disease Center at Atlanta, Ga., exists to help the States and local communities in this continuing fight, through research and technical services designed to produce better tools and methods of control.

SURVEILLANCE PROGRAM

The aim of the Center now is to develop the most effective type of surveillance over communicable diseases, so that the health agencies will have a basis for quickly mobilizing the forces necessary to combat epidemics or to prevent the re-establishment of once-prevalent diseases.

During the past year, malaria surveillance presented a striking illustration of how the program works. More than 7,000 cases of malaria were reported from all parts of the country, the majority being among military personnel returning from Korea. Malaria surveillance teams found that the infection had spread in a few instances to the civilian population. Thirty-four cases of primary indigenous malaria were identified and control measures were promptly instituted in the threatened areas.

The surveillance program has been extended to include murine typhus, smallpox, psittacosis, diphtheria, leprosy, and sylvatic plague. Surveillance techniques can also be useful in the control of infections for which preventive methods have not yet been developed. These include such diseases as chickenpox, measles, mumps, poliomyelitis, infectious hepatitis, and numerous other viral infections.

EPIDEMIC INTELLIGENCE

During the year, 35 medical officers were in training in the recently organized Epidemic Intelligence Service. In addition to supplying epidemic aid to the States requesting service, they participated in the investigation and control of various outbreaks and other supervised epidemiologic investigations.

Twenty-seven formal requests for epidemic aid were received in 1953. In addition, personnel of the Center assisted in the investigation and control of 125 other outbreaks.

An outbreak of Western equine encephalitis, which occurred in the Central Valley of California early in the summer of 1952, was the largest single epidemic in which the Center has rendered assistance. By the end of the summer, 729 human cases in 37 counties had been reported, 51 of which were fatal. The Center provided an epidemic aid team of 6 epidemiologists, 6 entomologists, 4 engineers, and 3 veterinarians.

LABORATORY SERVICES

In addition to providing refresher training for laboratory personnel in State and local health agencies, the laboratories of the Center con-

tinued to render other technical services and to conduct research on numerous diseases.

Field and laboratory studies were carried on to determine the epidemiology and natural ecology of three strains of equine encephalomyelitis virus, namely, the Eastern, Western, and Venezuelan strains. Simplified procedures were developed for the growth of viruses in tissue culture and excellent results were obtained in the growth of the poliomyelitis virus.

During the year, a third strain of poliomyelitis virus was established in mice. Two of the three known strains had been adapted to these inexpensive and plentiful laboratory animals in earlier years—also by Public Health Service scientists.

Rapid identification of air-borne pathogens has been under study in cooperation with other laboratories for several years. A valuable short-cut has been developed whereby enteric organisms in samples of contaminated water and soil may be identified by the direct application of serologic tests without passage through laboratory animals. The next step will be to determine whether this method can be applied to the identification of bacteria and viruses in samples of contaminated air.

TRAINING ACTIVITIES

The Center operated seven regional training centers during 1953, some throughout the year. The facilities at Amherst, Mass., serving the New England States, and at Columbus, Ga., Denver, Colo., and Pittsburgh, Pa. have been continued. A total of 2,546 trainees from State and local health agencies and 145 from 45 foreign countries attended training courses conducted by the Center, either in its own facilities or in facilities supplied by State agencies.

RESISTANT STRAINS OF INSECTS

One of the major problems in the control of insect-borne diseases by means of large-scale application of the new insecticides, such as DDT and other chlorinated hydrocarbons, is that insects of various species fairly rapidly develop new strains strongly resistant to the insecticide. Intensive efforts to solve this problem were continued at the Communicable Disease Center during the year. Although the introduction of new insecticides and the improvement of techniques of application may be partially successful, there will be no lasting solution of the problem until more is learned about the physiologic and genetic factors in resistance. Some progress has been made in this approach, and studies are being continued.

DISEASE INVESTIGATIONS

Studies of leptospirosis and plague infection were continued during the year. Thirty outbreaks of leptospirosis were investigated and the disease was identified in 40 States. In a severe outbreak near Columbus, Ga., a Communicable Disease Center team identified 24 cases in a population of 141. The causative agent was *Leptospira canicola* and the source of infection was a small artificial swimming pool which had been formed by damming a sluggish creek. A large number of domestic animals which had access to the stream about the pool were found to be infected.

Plague infection had not spread to domestic rodents in the continental United States at the close of the fiscal year. No new foci of infection in wild rodents were identified. In New Mexico, an epizootic occurred in an area where several human cases had been reported in 1949-50.

Dental Health Services

The Division of Dental Public Health continued to cooperate with the National Institute of Dental Research, the State health departments, and the dental profession in the development and demonstration of methods for the improvement of the Nation's dental health.

PROGRESS IN FLUORIDATION

Results of 8 years fluoridation of the public water supply in Grand Rapids, Mich., have been cited in this report. (Page 117.) The children of 790 communities with a total population of 14.5 million are now receiving the same protection against dental caries that the children of Grand Rapids have been receiving since 1945. One year ago, only 390 communities had adopted fluoridation of the public water supply as a means of preventing dental decay.

During the year, the Division of Dental Public Health developed an improved apparatus for determining the fluoride content of water supplies with greater speed and precision.

Studies completed during the year showed that in warm climates (a mean annual temperature of about 70°), a much lower concentration of fluoride is required in the public water supply to protect against dental caries than in colder climates. In Jacksonville, Fla., for example, the natural fluoride content of the water is between 0.6 and 0.7 ppm, and this concentration is affording optimum protection for children while their permanent teeth are being formed. In Midwestern cities, on the other hand, a concentration of 1 ppm or more is required. Similar studies in 6 Arizona communities also showed that

mottled enamel occurs frequently at concentrations of 0.8 ppm and higher, whereas in Midwestern cities, such concentrations produce little or no mottled enamel.

DENTAL CARE STUDIES

The long-term study of dental care in Woonsocket, R. I., undertaken early in 1946 was completed in the fall of 1952. Approximately 5,500 children were given complete dental care in each of 4 rounds of treatment. Because of the great accumulation of dental needs at the beginning of the study, 30 months were required to complete the first round of treatment. Less time was required for each of the remaining rounds: 24 months for the second; 15 months for the third; and 12 months for the final round.

Eighty percent of the children had received no dental care prior to the study, and about 85 percent needed fillings in their permanent teeth, at an average of 4.5 teeth per child. A significant demonstration of the value of complete dental care is that the children who received care throughout the study had only half as many extractions when they turned 12 years old, as had children who were age 12 at the beginning of the project. This study was conducted as a cooperative project of the State and local dental societies, the American Dental Association, and the Public Health Service.

Arctic Health Research

The Arctic Health Research Center at Anchorage, Alaska, has been in operation for nearly 5 years. Its research and development program has covered a wide range of health problems in arctic regions.

The Center has developed and tested a practical and economical means of preventing the freezing of water mains in areas where permafrost and extreme winter temperatures render conventional installations useless. Scale model tests of the single main recirculating water distribution system were set up at the Center in 1950 and the system has been adopted in Fairbanks where about 28,000 feet of pipe have been laid to serve one section of the city.

A laboratory experiment completed during the year confirmed the suspicion that flies may be potential vectors of hydatid disease. Studies in the field have been planned to determine the role of flies in the spread of the disease in nature.

Epidemics of distemper among arctic sled dogs are a constant threat to the economy of the Coastal Eskimos, who rely on these animals as their chief means of transportation. A program for the inoculation of dogs with distemper vaccine was begun in August 1952. The value of this method of preventing distemper was definitely established when an outbreak of the disease at Wainwright in 1952-53 was brought

under control by introduction of the vaccine. The transportation of dogs from St. Lawrence Island to the mainland has been prohibited, as a result of studies on echinococcosis conducted by the Center.

Preliminary findings of the first sickness survey to be undertaken in Alaska were announced early in 1953, with the completion of home visits and coding of a year's sickness records. The most nearly comparable data available are those recorded in the Eastern Health District Survey of Baltimore, Md. Findings on the survey group in Anchorage show that Anchorage residents have about 2.5 illnesses per person per year, whereas the comparable figure in the Baltimore study was 1.5. However, in the Baltimore group, the average length of disabling illness was 25 days, almost 8 times the 3.5 days average disability reported by the Anchorage group. Minor respiratory ailments, as in all other sickness surveys made to date, were the most common causes of illness.

International Health Work in 1953

In 1953, the United States Government invested approximately \$42.3 million in international health. Of this total, \$10.3 million constituted this Nation's contribution to health programs of the United Nations and its specialized agencies; the remainder was used by United States agencies in cooperative programs with foreign governments.

Although these funds are administered by other Federal agencies, the Public Health Service was directly or indirectly responsible for their effective utilization in health activities of this Government's cooperative programs. The Service also had a considerable voice in the utilization of funds by the international agencies. In addition, the Service has recruited health personnel both for headquarters and field staffs of these agencies, and has been responsible for the placement and supervision of foreign health trainees brought to this country under the auspices of the United States Government.

The Public Health Service also works directly with the World Health Organization and the Pan American Sanitary Organization in the exchange of technical information and other cooperative activities. The Surgeon General and other officers of the Public Health Service served on various official delegations during the year and many specialists of the Service have served on expert committees of the World Health Organization.

During the past year, the number of American missions overseas operating health programs increased from 16 to 21. The public health staffs of these missions totalled 223, including physicians, sanitary engineers, sanitarians, health educators, and public health nurses.

The Division of International Health continued to serve as the coordinator for all activities of the Public Health Service in this field

of growing importance. On April 1, 1953, the Division was officially transferred from the Office of the Surgeon General to the Bureau of State Services. The purpose of this move was to place international health work in a closer organizational relationship with the field of public health at home.

PROGRESS NOTES FROM OVERSEAS

Health personnel were assigned for the first time to Egypt, Ethiopia, Nepal, Pakistan, and Saudi Arabia. In Egypt, plans were completed to establish two health demonstration areas as a part of a \$25 million rehabilitation project in the Upper and Lower Nile River Basins.

At the close of the year, nearly 13,000 villages had been sprayed in Iran, as part of the malaria control work. About 50 percent of the population in malarious areas now has this type of protection. Similar progress was reported for malaria control work in Thailand, Burma, Indo-China and Taiwan. In India, a major program, supported by the Technical Cooperation Administration, has been launched with the purpose of eradicating malaria in that country within 4 or 5 years.

The accomplishments of the health staff have been particularly significant in India, where the Chief Public Health Officer has worked especially for the development of effective national-state health planning and participation. As a result, a "States-relations" unit has been established in the Ministry of Health, as well as a National Health Council patterned after the Annual Conference of the State and Territorial Health Officers with the Surgeon General of the Public Health Service and the Chief of the Children's Bureau.

The Mission to Burma which was terminated June 30, 1953, was successful in establishing a sub-professional training center for health personnel. It was also responsible for the establishment of divisions of environmental sanitation and health education within the Ministry of Health, and in many other ways contributed to the development of a strong national health service in Burma.

Successful training centers were also developed in Thailand and Lebanon. Similar projects are under way in Iraq, and Ethiopia. These demonstration training centers are most effective in showing the people and their governments the great values of local public health programs, such as communicable disease control, maternal and child health, environmental sanitation, and health education.

United States missions to Greece and Turkey also were terminated June 30, 1953. In Greece, the health activities were turned over to the Ministry of Social Welfare. During the 6 years work in Greece, the mission had spent more than \$21 million to control malaria, build health centers and hospitals, develop community water supplies, and extend preventive and curative medical services to the rural areas. Well-staffed, soundly organized divisions of public health nursing and

sanitary engineering within the Ministry are other important legacies of the American health personnel who worked with the forward-looking Greek people during their assignment.

The above examples of the work carried on by Public Health Service staffs overseas could be multiplied to include many hundreds of successful projects. Any selection or listing would fall far short of expressing the impact of these programs on tens of millions of depressed and suffering people. The Public Health Service derives great satisfaction in sharing with these people and their governments an active place in the forward march of health in the free world.

THE FELLOWSHIP PROGRAM

During 1953, a total of 831 persons from 67 countries came to the United States for advanced training in health subjects, under the auspices of the United States Government. Studies were planned for them by the Public Health Service in 105 separate fields of interest. In addition, the Service gave similar assistance to 289 persons who came to this country for training under the auspices of the World Health Organization, the United Nations, or their own governments.

Seminars on the programs and work of the Public Health Service were held for several groups of foreign students. In March 1953, foreign students in public health education from Harvard, Yale, and Columbia Universities and the University of North Carolina came to Washington for one of these seminars, as part of their academic course. In June 1953, a group of Rockefeller Foundation Fellows at the Johns Hopkins University also received orientation in the work of the Service.

COLLABORATION WITH WHO

Personnel of the Service served on the following expert committees of the World Health Organization during the year: The Committees on Biological Standardization, Schistosomiasis, Influenza, Drugs Liable to Produce Addiction, Venereal Diseases and Treponematoses. Sixty-one Americans serve on the regular WHO staff and 52 in the field, 17 of whom have higher administrative positions. The Director of the WHO Tuberculosis Research Office in Copenhagen is a Public Health Service Officer, serving part-time with WHO.

Sixth World Health Assembly

The Surgeon General of the Public Health Service headed the United States Delegation to the Sixth World Health Assembly, held in Geneva, May 5-23, 1953. Among other achievements of the Assembly was the unanimous adoption of a proposal to outlaw the manufacture and importation of heroin. The Assembly elected the United States to membership on the Executive Board of the World Health

Organization. President Eisenhower has appointed Public Health Service officers as the representative and alternate representative of the United States Government to that body. United States delegations also participated in the sessions of the Executive Committee and the Directing Council of the Pan American Sanitary Bureau.

World Influenza Center

The Public Health Service acted as liaison for the WHO's world-wide chain of influenza typing stations which has its center in London. The World Center has found in recent years that there has been a progressive change in the antigenic pattern of strains of influenza virus. The A prime (FM1) strains now prevail the world over, and the B types have been reduced to insignificant occurrence. During the influenza outbreaks in the United States in January and February 1953, collaborating civilian and military laboratories isolated Virus A 379 times, and Virus B, only once. These findings, which are made available immediately, are of basic importance to the laboratories producing influenza vaccines.

Table 1.—Statement of appropriations, authorizations, obligations, and balances for the fiscal year 1953

Appropriations	Funds available for obligation				Total funds available	Amounts obligated	Balances
	Appropriations and authorizations ¹	Net transfers between appropriations ²	Repayments for services	Prior year unobligated balances			
Retired pay of commissioned officers.....	\$1,186				\$1,186	\$1,092	\$94
Foreign quarantine service.....	3,065		\$1		3,066	3,045	21
Control of tuberculosis.....	8,240				8,240	8,065	175
Control of venereal diseases.....	9,850	\$-50			9,800	9,751	49
Assistance to States, general.....	16,150	50	155		16,355	16,313	42
Control of communicable diseases.....	5,920		410		6,330	6,259	71
Hospitals and medical care.....	33,688		5,303		38,991	38,959	32
Operating Expenses, National Institutes of Health.....	16,599		3,236		19,835	19,000	835
Salaries, expenses, and grants, National Cancer Institute.....	17,887	-12	21		17,896	16,630	1,266
Mental health activities.....	10,895		28		10,923	10,553	370
Salaries and expenses.....	3,170		466		3,636	3,631	5
Diseases and sanitation investigations and control, Alaska.....	1,107				1,107	1,090	17
Salaries, expenses, and grants, National Heart Institute.....	12,000	-55			11,945	11,398	547
Dental health activities.....	1,650				1,650	1,595	55
Engineering, sanitation, and industrial hygiene.....	3,700		122		3,822	3,798	24
Salaries and expenses, hospital construction services.....	1,200	12	6		1,218	1,206	12
Working capital fund, narcotic hospitals.....			375	\$19	394	365	29
Service and supply fund.....			1,069	40	1,109	1,095	14
Construction and research facilities.....				8,026	8,026	3,052	4,974
Grants for hospital construction.....	75,000			27,597	102,597	67,602	34,995
Grants, water pollution control.....				20	20	20	
Research facilities, national Institute of Dental Research.....		13		11	24		24
Grants to States, municipalities, etc., for plan preparation, water pollution control.....				200	200		200
Buildings and facilities, Cincinnati, Ohio.....	300	-245			55	31	24
Defense public works, community facilities, General Services Administration.....		-52		41	-11	-11	
Operation of commissaries, narcotic hospitals.....			226	7	233	224	9
Salaries and expenses, bureau of prisons.....		1,304	9		1,313	1,311	2
American sections, international commissions, State.....		55			55	55	
Salaries, expenses, and loans, displaced persons.....				17	17	9	8
Program expenses, Europe, Mutual Security Agency.....		114		80	194	126	68
Program expenses, Asia and Pacific, Mutual Security Agency.....		-199		629	430	388	42
Administrative expenses, Mutual Security Agency.....		54			54	44	10
Working funds, PHS.....			292	1	293	254	39
Total.....	221,607	989	11,719	36,688	272,003	226,950	44,053

¹ Adjusted to eliminate unearned reimbursements.² Does not include liquidating cash.

Table 2.—Commissioned officers and civil service personnel as of June 30, 1953

	Full-time				Part-time (civilian)					
	Grand total full-time	Commis- sioned officers	Total	Wash- ington metro- politan area	States	Outside United States	Total part- time	When actually employed	Without compen- sation	Other
Public Health Service.....	115,228	2,556	12,672	4,756	7,740	176	24,891	2,244	4,438	209
Office of the Surgeon General.....	570	46	524	502	22	---	7	---	3	4
Immediate Office of the Surgeon General.....	24	7	17	17	---	---	---	---	---	---
Division of Health Requirements.....	18	5	13	13	---	---	---	---	---	---
Division of Commissioned Officers.....	56	10	46	46	---	---	---	---	---	---
Division of Finance.....	132	---	132	132	---	---	---	---	---	---
Division of General Services.....	129	5	124	108	16	---	---	---	---	---
Division of Personnel.....	55	1	54	54	---	---	1	---	1	---
Division of Public Health Methods.....	78	3	75	69	6	---	1	---	---	---
Offices other than Divisions (Health Emergency Planning, Informa- tion, Executive, Legislative, Security).....	53	---	53	53	---	---	2	---	2	---
Details to other agencies.....	25	15	10	10	---	---	3	---	---	3
Bureau of Medical Services.....	8,413	1,184	7,229	1,194	5,948	87	437	123	165	149
Immediate Office of the Chief.....	16	4	12	12	---	---	---	---	---	---
Division of Administrative Management.....	91	2	89	89	---	---	---	---	---	---
Division of Dental Resources.....	15	6	9	9	---	---	---	---	---	---
Division of Foreign Quarantine.....	517	44	473	17	389	67	131	3	119	9
Division of Hospital Facilities.....	53	8	45	45	---	---	3	2	---	1
Division of Hospitals.....	6,446	840	5,606	139	5,447	20	282	118	33	131
Freedmen's Hospital.....	852	---	852	852	---	---	8	---	2	6
Division of Medical and Hospital Resources.....	22	9	13	13	---	---	---	---	---	---
Division of Nursing Resources.....	15	6	9	9	---	---	---	---	---	---
Details to other agencies.....	380	265	121	9	112	---	13	---	11	2
Bureau of State Services.....	3,351	894	2,457	905	1,493	89	4,348	80	4,246	22

Immediate Office of the Chief.....	26	9	17	17	10	10	10
Division of Administrative Management.....	71	71	71	71	28	17	8
Division of Chronic Disease and Tuberculosis.....	377	76	301	257	6	1	3
Division of Dental Public Health.....	37	11	25	19	1	1	2
Division of Engineering Resources.....	36	17	19	18	3		
Division of International Health.....	230	166	64	53	11		
Division of Occupational Health.....	88	30	58	22	36	2	1
Division of Public Health Education.....	26	6	20	19	1		
Division of Public Health Nursing.....	17	10	7	7			
Division of Sanitation.....	83	64	19	19	1	1	1
Division of State Grants.....	59	6	53	53			
Division of Venereal Disease.....	447	64	383	89	278	16	32
Division of Water Pollution Control.....	67	37	30	23	7	1	15
National Office of Vital Statistics.....	224		224	214	10	30	4, 160
Arctic Health Research Center.....	56	23	36		7	1	6
Communicable Disease Center.....	965	271	694		6	38	25
Environmental Health Center.....	185	46	139		688	3	13
Regional Offices.....	351	55	296	24	12	3	8
Details to other agencies.....	3	3			1		1
National Institutes of Health.....	2, 894	432	2, 462	2, 155	99	41	24
Immediate Office of the Director.....	4		4	4			
Office of the Director.....	777	9	768	768	5		1
National Cancer Institute.....	509	79	430	378	22	12	7
National Heart Institute.....	235	66	169	120	9	2	3
National Institute of Arthritis and Metabolic Diseases.....	306	68	238	237	5	2	5
National Institute of Dental Health.....	48	20	28	24	3	1	1
National Institute of Mental Health.....	192	54	138	103	33	15	11
National Institute of Neurological Diseases and Blindness.....	27	7	20	18	1		1
National Microbiological Institute.....	446	79	367	203	4		1
Division of Research Grants.....	97	3	94	94	7	2	4
Clinical Center.....	251	45	206	206	3		1
Details to other agencies.....	2	2					

1 Includes 1,265 Regular officers and 1,291 Reserve officers.
2 Excludes those part-time employees not paid during the month of June 1953.
3 Includes 3,947 collaborating epidemiologists and special agents.

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2 Excludes those part-time employees not paid during the month of June 1953.
3 Includes 3,947 collaborating epidemiologists and special agents.

Table 3.—Payments for research grants, fellowships, and training stipends, fiscal year 1953

State	Research grants		Research fellowships		Training stipends	
	Number	Amount	Number	Amount	Number	Amount
Alabama	14	\$143,076	5	\$18,349	1	\$3,675
Arizona	2	12,800				
Arkansas	5	31,255			2	3,300
California	185	1,998,611	56	201,284	75	166,405
Colorado	25	218,934			34	66,865
Connecticut	46	461,556	32	94,332	28	62,210
District of Columbia	45	395,484	6	22,781	43	95,517
Florida	22	177,395	1	3,248		
Georgia	23	224,776	3	10,375	8	28,830
Idaho	3	16,536				
Illinois	175	1,602,380	38	130,440	60	133,240
Indiana	18	124,207	6	12,664	10	27,818
Iowa	25	169,282	6	23,078	7	12,000
Kansas	38	311,741	4	14,340	18	44,875
Kentucky	9	69,365	2	7,040	8	15,934
Louisiana	44	326,740	1	4,000	24	52,250
Maine	13	188,213	2	8,627		
Maryland	71	609,499	20	76,382	26	76,205
Massachusetts	229	2,747,894	82	304,737	108	293,242
Michigan	59	571,774	6	17,915	29	55,018
Minnesota	64	661,559	8	23,704	57	120,708
Mississippi	1	10,724				
Missouri	53	497,196	13	53,214	38	82,684
Montana	2	35,000				
Nebraska	12	85,715			6	7,733
New Jersey	15	110,611	1	6,000	2	4,800
New Mexico	3	22,258				
New York	354	3,992,749	96	364,838	139	358,120
North Carolina	62	516,822	16	547,81	34	73,860
North Dakota	3	19,538				
Ohio	100	991,779	21	71,423	34	85,533
Oklahoma	16	133,276			1	3,600
Oregon	15	92,208				
Pennsylvania	157	1,507,896	32	107,887	100	228,322
Rhode Island	11	54,893				
South Carolina	8	58,834	2	6,825	2	7,200
South Dakota	5	27,003	1	2,550		
Tennessee	38	280,378	5	12,916	18	42,355
Texas	42	305,593	2	10,309	10	22,974
Utah	27	273,954	6	20,388	3	6,567
Vermont	6	59,411				
Virginia	23	180,522	5	17,615	6	17,600
Washington	39	358,544	12	40,398	16	27,648
West Virginia	1	4,000				
Wisconsin	43	316,569	16	42,233	2	4,400
Hawaii	2	11,450				
Puerto Rico	8	42,425				

Country	Research grants		Research fellowships		Training stipends	
	Number	Amount	Number	Amount	Number	Amount
Africa	1	\$3,600				
Argentina	2	12,500				
Australia			1	\$4,762		
Belgium			1	4,534		
British Isles	1	10,000	16	69,799	1	\$3,600
Canada	6	64,882	5	22,497		
China (Formosa)	1	2,986				
Denmark	4	21,775	7	32,689		
Finland	1	3,600				
France	3	28,000	4	15,343		
Guatemala	1	42,700				
Israel	1	15,009				
Lebanon	1	2,000				
Netherlands			2	10,650		
Peru	2	39,600				
Sweden			5	22,672		
Switzerland				1,047		
U. S. Government institutions			15	46,321		
Total	2,185	\$21,297,068	562	\$2,014,987	950	\$2,235,088

Table 4.—Payments to States, fiscal year 1953

[In thousands]

State	Vene- real disease control	Tuber- culosis control	General health	Mental health activi- ties	Heart disease control	Cancer control	Hospi- tal survey and plan- ning	Hospital con- struction	Other
Total	¹ \$7,166	\$5,300	² \$13,537	\$3,050	\$1,348	\$2,897	\$98	\$109,204	³ \$1,113
Alabama	301	126	400	72	47	73	7	3,026	-----
Arizona	66	57	96	6	2	13	-----	819	-----
Arkansas	146	88	252	33	25	50	4	3,191	-----
California	151	288	665	181	70	182	-----	4,020	⁴ 58
Colorado	46	44	128	26	18	32	-----	506	-----
Connecticut	35	75	125	34	22	37	8	761	-----
Delaware	17	20	23	20	12	6	-----	205	-----
District of Columbia	137	49	48	19	14	14	-----	411	-----
Florida	418	114	266	58	34	59	-----	2,332	-----
Georgia	505	163	403	77	47	80	-----	3,591	⁵ 119
Idaho	36	17	76	20	15	18	-----	28	-----
Illinois	285	260	533	147	45	147	-----	5,731	⁴ 103
Indiana	103	104	293	64	29	68	-----	4,922	⁴ 181
Iowa	54	46	208	49	20	55	-----	1,640	-----
Kansas	36	56	170	34	25	38	2	1,307	-----
Kentucky	194	147	345	66	42	71	-----	5,093	-----
Louisiana	432	106	297	57	29	57	-----	3,412	-----
Maine	15	29	97	18	5	21	4	192	-----
Maryland	129	106	171	44	16	38	-----	1,139	-----
Massachusetts	46	172	313	88	35	95	-----	2,481	-----
Michigan	143	173	447	118	40	103	6	2,801	-----
Minnesota	25	71	247	57	29	53	-----	3,751	-----
Mississippi	396	120	340	55	41	65	-----	1,635	-----
Missouri	187	126	317	74	37	83	-----	1,879	-----
Montana	18	22	68	20	15	17	-----	457	-----
Nebraska	26	31	128	14	11	26	2	907	-----
Nevada	21	10	38	10	7	7	-----	87	-----
New Hampshire	12	16	50	20	11	-----	1	84	-----
New Jersey	79	134	309	90	38	73	-----	3,213	-----
New Mexico	36	40	97	19	5	7	-----	543	-----
New York	310	431	825	264	90	274	-----	4,731	-----
North Carolina	319	155	473	81	32	60	-----	5,057	⁴ 129
North Dakota	25	37	75	20	15	18	-----	441	-----
Ohio	179	230	550	151	61	149	9	4,942	⁵ 6
Oklahoma	101	82	223	46	29	46	6	699	⁵ 1
Oregon	26	48	138	28	14	21	-----	836	-----
Pennsylvania	242	270	756	201	78	184	28	5,359	-----
Rhode Island	15	29	56	20	-----	16	3	321	-----
South Carolina	249	115	274	49	21	50	-----	2,475	⁴ 420
South Dakota	18	23	77	19	11	11	1	528	-----
Tennessee	215	154	354	68	42	55	-----	4,288	-----
Texas	624	193	692	157	-----	148	8	6,105	⁴ 83
Utah	17	18	86	19	9	16	2	423	-----
Vermont	14	18	45	11	⁶ 12	12	-----	253	-----
Virginia	169	154	327	70	5	33	-----	2,295	-----
Washington	30	67	172	44	26	43	-----	891	⁵ 3
West Virginia	114	71	203	41	27	43	-----	4,069	-----
Wisconsin	25	67	259	65	28	57	-----	2,088	⁵ 9
Wyoming	15	12	49	7	5	11	1	338	-----
Alaska	17	67	586	19	5	-----	-----	111	-----
Hawaii	17	49	44	19	14	10	-----	381	-----
Puerto Rico	316	191	317	42	35	51	6	2,409	-----
Virgin Islands	14	9	6	19	3	1	-----	-----	-----

¹ Includes \$2,528,312 in cash and \$1,121,390 in services and supplies for rapid treatment facilities and special venereal disease projects. Does not include expenditures of federally operated center in Hot Springs, Arkansas.

² Includes payment of \$537,000 from special appropriation for Alaska disease and sanitation investigation and control.

³ This amount represents \$1,093,193 for construction of community facilities in defense areas and \$20,223 for industrial waste studies. Excludes \$2,500 paid to Interstate Commission on the Potomac River Basin for industrial waste studies.

⁴ Payment for construction of community facilities in defense areas.

⁵ Payment for industrial waste studies.

⁶ Vermont allotment paid to Vermont Heart Association.

Table 5.—Number of nurses employed for public health work in the United States on January 1 of specified years, by type of employing agency

Agency	1938	1943	1948	1953
Total ¹	19,502	20,772	22,605	25,990
State agencies.....	827	886	1,003	1,355
Local official agencies.....	8,702	10,731	11,171	12,476
Local boards of education.....	3,887	3,786	5,019	² 6,860
Local nonofficial agencies.....	5,963	5,156	5,057	4,512
Schools of nursing.....			133	217
Colleges and universities (nonnursing).....				87
National agencies and universities.....	123	213	222	483

¹ Excludes nurses employed by industry.² Includes District of Columbia school nurses for 1953 only.

Office of Education

I. Introduction

THE YEAR 1953 was in many respects a landmark year for the Office of Education and for American education generally. With the creation on April 11, 1953, of the U. S. Department of Health, Education, and Welfare, the word "education" has come to appear for the first time in American history as a part of the title of a cabinet-level department of the Federal Government. A new cabinet Department and a new Secretary have entered the American scene: the Department—and the first Secretary—of Health, Education, and Welfare.

The true long-range significance of this development—significance for the American people and for the strengthening and improvement of their schools and colleges—is something which must unfold with the years. It is much too early to attempt any definitive evaluation. At the minimum, however, a voice for education at the cabinet level has been achieved, and the problems—and opportunities—of American education are assured of sympathetic consideration in the highest councils of the Executive Branch.

The year 1953 was significant also as a period of re-examination and re-evaluation. It was a time for stocktaking, and the charting of new directions—in education as in many other areas of human activity. What are the strengths and weaknesses of America's schools and colleges? How can they be strengthened and improved to meet the ever-increasing needs of mid-twentieth century America? Are the educational facilities and practices of earlier years adequate to the demands of the new technology of jet propulsion and nuclear fission? Are we training enough scientific, professional, and technical manpower—and womanpower—to meet the challenge of a

divided world? How can the resources of the Federal Government best be applied toward the development of solutions to major national educational problems, while at the same time the values and benefits traditionally associated with State and local control of education are safeguarded? These are the sorts of questions with which the Office of Education and the Department of Health, Education, and Welfare were concerned during the fiscal year 1953—questions which must be of concern to all Americans alike in 1954 and beyond.

EDUCATION AND THE BUILDING OF AMERICA

If it be true, as has been said, that America is built upon faith, then one important element of that faith is the faith of the American people in education. Among the early English colonists the first community undertaking in each settlement—with the possible exception of the church—was the colonial school. This was no accident. The colonists believed firmly, as succeeding generations of Americans have believed after them, that the political freedom which they sought could be made secure only through widespread popular education. Said Thomas Jefferson, "If a nation expects to be ignorant and free . . . it expects what never was and never will be."

This basic idea—that only the educated man can be truly free, and that self-government is possible only with an educated citizenry—permeates all early American history and underlay all of the deliberations of the Constitutional Convention. It is not surprising, then, that one of the first acts of the young Republic was the reservation and dedication of the sixteenth section of every township of land in the newly opened Northwest Territory to educational purposes. As a part of the Northwest Ordinance of 1787 the Congress made the clear declaration of policy that—

. . . religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged.

Implicit in the Northwest Ordinance and subsequent similar legislation is the recognition of a valid national interest in the promotion and encouragement of education, a national interest which may at times transcend the more limited interests of the individual States. At the same time it is equally clear that the framers of the Constitution intended to leave strictly to the States and the local communities the control of their own educational institutions, since there is no reference to "education" in the delegation of powers under the Constitution, and the Tenth Amendment provides that the "powers not delegated to the United States . . . are reserved to the States respectively, or to the people."

On these two foundation stones—State and local control, with Federal assistance and support where the national interest requires—has

been built an educational system—or systems—which is unique in the truest sense of the word. Avoiding on the one hand the extreme centralization found in many ministries of education abroad, where education is literally “handed down from above”—and on the other, the evils that would be inherent in a “do-nothing” Federal policy concerning national educational problems—there has evolved a cooperative local-State-Federal partnership in education, the key to which is found not in competition among jurisdictions, but in collaboration among equals in the larger interest of the Nation as a whole.

For the past 86 years, the principal arm of the Federal Government concerned with the well-being of the American educational system as a whole has been the United States Office of Education, now an integral part of the new Department of Health, Education, and Welfare. As the central educational agency of the Federal Government, the Office was established originally in 1867 for the purpose of

... collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country.¹

From time to time during the intervening years, the Congress has responded to recognized national needs by authorizing further programs of Federal assistance and support in certain specialized areas of education where the national interest has required. Thus, when it became clear in the latter 1800's that the national interest required a kind of college or university less bound by the classical academic curriculum, the Congress passed the two Morrill Acts (1862 and 1890) through which each State was led to establish at least one college to provide instruction in agriculture and the mechanic arts.

Similarly, during the early 1900's it became clear that the typical high-school program was too exclusively academic and college-preparatory in character, and that modification of the program in the direction of better vocational education would be in the best interest of the Nation. In response to this recognized need, Congress passed the Smith-Hughes (1917) and related acts, providing Federal funds on a matching basis to the States in support of improved vocational education.

More recently the Congress has acted to provide Federal assistance to local communities in meeting another educational need which would otherwise have been beyond the resources of these communities. This is the program of assistance to school districts in areas where Federal activities have resulted in an increase in school enrollments and a de-

¹ 14 Stat. 434.

crease in the local tax base through Federal property acquisition. Assistance in school construction in such areas has been provided under Public Law 815 and assistance in school operation and maintenance under Public Law 874 (81st Congress, Second Session). Further discussion of this program, as well as others in which Congress has authorized Federal assistance in response to recognized national needs, is found in succeeding sections of this report.

LEGISLATION AFFECTING EDUCATION DURING FISCAL '53

Legislative developments affecting education during the period July 1, 1952, to June 30, 1953, may be grouped conveniently into two categories; namely, those associated with the latter portion of the 82d Congress, on the one hand, and those associated with the incoming Eisenhower administration and the first session of the 83d Congress on the other.

The principal piece of legislation affecting education which was passed in the latter days of the 82d Congress was the "Veterans' Readjustment Assistance Act of 1952" (P. L. 550, 82d Congress, Second Session, approved July 16, 1952) which has become better known as the "Korean GI Bill." Under this Act the Commissioner of Education was assigned three new statutory responsibilities: (1) the publication of a list of nationally recognized accrediting agencies or associations for the guidance of State-approving agencies in approving or disapproving training courses under the veterans educational program; (2) advice to the Administrator of Veterans Affairs concerning the system to be used in approving veterans training courses; and (3) service ex officio as a member of the statutory Advisory Committee to the Veterans Administrator on educational and vocational assistance under the Act. The functions being performed in carrying out these responsibilities are described elsewhere in this report.

With the inauguration of President Dwight D. Eisenhower on January 20, 1953, the new administration began at once to turn its attention to some of the major problems confronting American education. In his State of the Union Message on February 2, President Eisenhower touched upon some of these problems in the following language:

Our school system demands some prompt, effective help. During each of the last 2 years, more than 1½ million children have swelled the elementary and secondary school population of the country. Generally, the school population is proportionately higher in States with low per capita income. This whole situation calls for careful congressional study and action. I am sure you share my conviction that the firm conditions of Federal aid must be proved need and proved lack of local income.

One phase of the school problem demands special attention. The school population of many districts has been greatly increased by the swift growth

of defense activities. These activities have added little or nothing to the tax resources of the communities affected. Legislation aiding construction of schools in these districts expires on June 30. This law should be renewed; and, likewise, the partial payments for current operating expenses for these particular school districts should be made, including the deficiency requirement of the current fiscal year.

In addition, President Eisenhower indicated that he expected to send to the Congress shortly a reorganization plan defining new administrative status for all Federal activities in health, education, and social security, as well as recommendations for establishing a commission to study the proper relationships among Federal, State, and local programs.

On March 12, 1953, the President transmitted to the Congress Reorganization Plan No. 1 of 1953, proposing the creation of a Department of Health, Education, and Welfare as one of the executive departments of the Federal Government, to which would be transferred the various components of the then Federal Security Agency, including the Office of Education. The plan reserved to the Office of Education, or to the Commissioner, the professional and substantive responsibilities vested in them by law, and also specifically provided that the Commissioner of Education (as well as the heads of the other major constituent organizations) should have direct access to the Secretary of the new Department.

The President also included in his message transmitting the plan to the Congress, although not as a part of the plan itself, a recommendation for the establishment, by statute, of a special advisory body to the Secretary on problems of education. Said the President:

There should be in the Department an Advisory Committee on Education, made up of persons chosen by the Secretary from outside the Federal Government, which would advise the Secretary with respect to the educational programs of the Department. I recommend the enactment of legislation authorizing the defrayal of the expenses of this Committee. The creation of such a Committee as an advisory body to the Secretary will help insure the maintenance of responsibility for the public educational system in State and local governments while preserving the national interest in education through appropriate Federal action.

Following approval by both Houses of the Congress, Reorganization Plan No. 1 was signed by the President as P. L. 13 on April 1, 1953, and the new Department came into being 10 days later, as provided by the law, on April 11, 1953. Plans for the Advisory Committee on Education proposed by the President are being developed currently.

Legislation to carry out the President's State of the Union Message recommendation for a commission on Federal-State-local govern-

mental relations was introduced by Senator Taft on April 1, 1953, as S. 1514, a bill to establish a commission on governmental functions and fiscal resources. With certain modifications, this bill was enacted as Public Law 109² providing for the establishment of a 25-member Commission on Intergovernmental Relations. This Commission is responsible for studying the proper role of the Federal Government in relation to the States and their political subdivisions in all fields involving intergovernmental relations, including the field of education, and the Commission is required to submit a report and recommendations to the President and the Congress concerning the allocation of governmental functions to their proper jurisdiction and the adjustment of intergovernmental fiscal relations among the various levels of government. The act specifies that the report and recommendations of the Commission shall be submitted not later than March 1, 1954.

A related measure is the act providing for the establishment of the "new Hoover Commission," known officially as the Commission on Organization of the Executive Branch of the Government.³ This 12-member Commission is charged with the responsibility of studying and investigating the organization and methods of all Government instrumentalities, including those operating in the field of education, for the purpose of proposing to the Congress such changes as may be necessary in the interest of economy, efficiency, and improved service in the transaction of the public business. The Commission is to submit a comprehensive report of its activities and the result of its studies to the Congress on or before December 31, 1954.

The principal substantive legislation of the First Session of the 83d Congress specifically relating to the field of education was the extension for 2 years of the program of school assistance in federally affected areas, as recommended by President Eisenhower in his State of the Union Message and elsewhere. Developments pertaining to this program are discussed in section II of this report.⁴ Other items of educational interest from the First Session included Public Law 226,⁵ which granted the consent of the Congress to certain Western States, Alaska, and Hawaii to enter into a compact relating to higher education in the Western States and establishing the Western Interstate Commission for Higher Education; and Public Law 141,⁶ which authorized "book rate" postage for the transmittal through the mails of educational films and related educational materials.

² Approved July 10, 1953.

³ Public Law 108, 83d Congress, approved July 10, 1953.

⁴ See also Third Annual Report.

⁵ Approved August 8, 1953.

⁶ Approved July 20, 1953.

PROGRESS AND PROBLEMS

The American people are today doing more than they have ever done before for the education of their children. Individually, and through such organizations as parent-teacher associations and lay citizens groups, they are working ever more actively for better schools and improved educational programs. PTA's throughout the country now have nearly 8 million members—nearly double their membership in 1946. Furthermore, during the fiscal year 1953, American citizens taxed themselves approximately \$500 million more to provide for their schools than during fiscal 1952. They spent about \$7.8 billion in fiscal 1953 alone to operate public elementary and secondary schools and to put up new buildings.

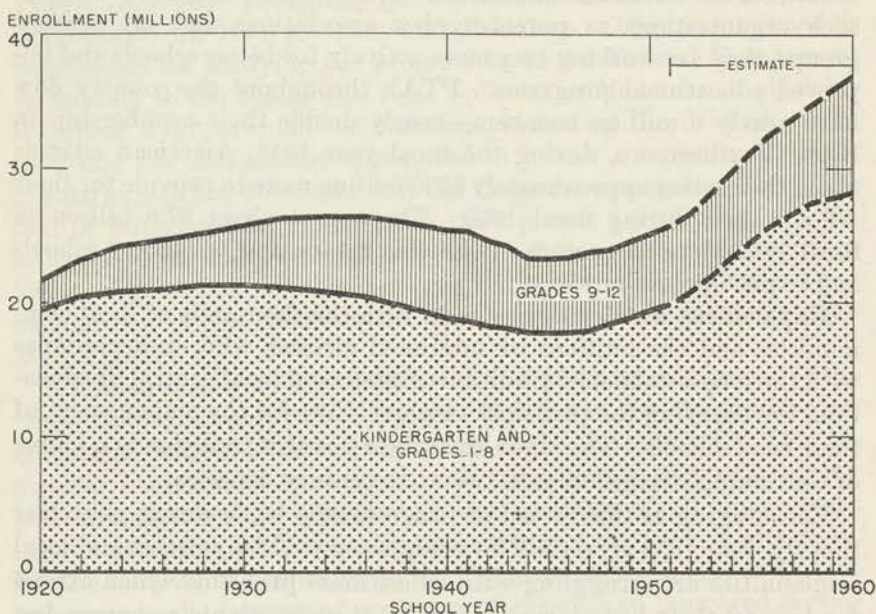
Major credit for these gains rests with the thousands of local communities and the millions of interested citizens who, in accordance with the long-established tradition of State and local control of education, are carrying the principal responsibility for the management of their local schools. The vigor and vitality of this tradition is a source of continuing strength to mid-twentieth century America.

Encouraging as this record of progress may be, however, it is clear that the year 1953 is no time for complacency. Many States and local communities are struggling with educational problems which extend far beyond their boundaries or beyond their available resources, but which still require prompt and workable solutions. And experience indicates that educational problems which are unsolved or imperfectly solved in the States and local communities have a way of becoming national problems as the national interest itself becomes imperiled.

Among the major educational problems being faced in varying degree across the Nation at the present time, the following are perhaps the most widespread and the most urgently in need of solution. The best collaborative efforts of all our citizens—individually and in groups—and all our organizations—public and private, local, State, and national—will be needed if American education is to meet the challenge, and rise to the opportunities, which these problems present.

The need for more and better schools.—School construction is not keeping pace with classroom needs. The United States is short right now more than 340,000 public elementary and secondary school classrooms. Furthermore, increased enrollments (see chart 1), building deterioration and obsolescence will create the need for more than 400,000 classrooms by 1960. Three classrooms out of every five are overcrowded. One out of every five pupils across the country is going to school in a schoolhouse which does not meet minimum fire safety conditions.

Chart 1.—ENROLLMENT IN PUBLIC ELEMENTARY AND SECONDARY DAY SCHOOLS, 1920–60
(DATA FOR 1952 AND LATER ARE ESTIMATES BASED ON NUMBER OF ACTUAL BIRTHS THROUGH MARCH 1953)



The need for more and better teachers.—The number of persons being prepared for and entering the teaching profession is inadequate to meet teacher needs. This shortage is particularly acute in the elementary schools. For the fall of 1953, a minimum of 118,000 new public elementary teachers was needed—53,000 to take care of increased enrollment (1.6 million), and 63,000 to replace teachers leaving the profession. Since only some 45,700 qualified graduates for elementary teaching came out of the colleges, there was a net teacher shortage for the fall of 1953 of over 72,000.

The uneducated; what to do about illiteracy.—There are 10 million adults in the United States who are functionally illiterate, i. e., who have completed fewer than 5 years of schooling. During World War II over 600,000 men were rejected for military service because of functional illiteracy. Three hundred thousand were rejected for the same cause during the first year of the Korean conflict. With one out of every 12 American adults functionally illiterate, the drain upon the Nation's strength and productive capacity is incalculable.

The financing of education.—Rising operating costs have placed new pressures upon all educational institutions, public and private, elementary, secondary, and higher. Among the Nation's 1,900 higher educational institutions, the private liberal arts colleges have been particularly hard-pressed to stretch their income from endowment

and tuition to meet increased operating expenses. At the same time steadily rising tuition and living costs are making it increasingly difficult for children of low-income families to obtain the benefits of a college education.

Educational television.—The full potentiality of television as a medium of instruction and communication—and thus of education—is perhaps still difficult to comprehend. There has been enough research, experimentation, and operating experience to date, however, to make it clear that an important new dimension has been added to proven educational techniques. The creation of a climate in which this new educational medium can flourish—without being overshadowed or thwarted by the rapid and vigorous growth of its commercial counterpart—presents many issues of public policy of the broadest import.

The "drop-out" problem; curriculum adjustments.—Less dramatic than educational television, though perhaps equally significant in its long-range implications, is the problem of curriculum adjustments at the secondary school level, more specifically curriculum adjustments designed to meet the needs of those children who otherwise tend to drop out of school when past the age of compulsory school attendance. Since 1890, high-school attendance in the United States has risen from only 7 percent of the eligible youth to nearly 80 percent. Under these circumstances the problem of shaping the high-school curriculum and keeping it sufficiently flexible to meet the needs of pupils of widely varying intellectual levels and capacities is a continuing one.

Educational benefits of returning veterans.—Under the Servicemen's Readjustment Act of 1944 (the so-called "GI Bill of Rights") more than five million young men and women in all returned to school or college. Under the Veterans Readjustment Assistance Act of 1952 (known as the "Korean GI Bill") some 50,000 veterans were enrolled in colleges and universities in January 1953, and there are many more to come. The Nation as a whole has a real stake in seeing that these veterans receive the full value of their educational benefits on returning to civilian life.

The role of education in technical assistance abroad.—With increasing frequency, American educators and educational institutions are being called upon to help in the program of technical and economic assistance throughout the world. The implications of these relationships for improved international understanding and for the strengthening of the Free World are very great. Much pioneering remains to be done if the potentialities of international education as a part of an enlightened foreign policy are to be fully realized.

Citizen understanding and support of the schools.—Underlying all other problems, and perhaps the most basic of all, is the problem of broadening and strengthening public understanding and support of

the educational institutions of America. As guardians of the finest traditions of the past, as bulwark against the totalitarian assaults of the present, and as symbols and guarantors of our highest hopes for the future, the Nation's schools and colleges are pre-eminent among the free institutions on which our way of life depends. They deserve the full and undivided support and allegiance of all Americans interested in a brighter future for their children.

II. Assistance to Schools in Federally Affected Areas

In reviewing educational problems and issues in his State of the Union Message on February 2, President Eisenhower singled out one particular program for special attention and specific recommendation to the 83d Congress. This was the program of assistance to schools in federally affected areas, for which the President specifically requested renewal. Congressional hearings on the subject began shortly thereafter.⁷

Although the problem of local school districts being overburdened by adjacent Federal activities dates back at least to World War I, it was not until after World War II that the Congress gave systematic attention to the matter. Following expiration of the program for World War II emergency aid for school construction under the Lanham Act, the 81st Congress conducted extensive hearings on the subject and shortly thereafter passed Public Laws 815 and 874, the first comprehensive legislation providing for Federal assistance to schools in federally affected areas.⁸ It was this legislation which President Eisenhower recommended be extended—Public Law 815 through June 1954 and Public Law 874 through June 1956. These terminal dates were selected in order to provide the new Commission on Inter-governmental Relations an opportunity to consider these programs in relation to other grant-in-aid programs of the Federal Government.

In Public Law 874, Congress had declared it to be the policy of the U. S. Government to provide financial assistance (for the *operation and maintenance* of schools) to local educational agencies upon which the United States has placed financial burdens where (a) the revenues available from local sources are reduced because the Federal Government acquired real property in the district; (b) the school districts provide education for children living on Federal property or whose parents are working on Federal property; or (c) there has been a sudden and substantial increase in school attendance as the result of Federal activities. The law established eligibility requirements for assistance, defined the categories in which federally connected children

⁷ Public Laws 246 and 248, 83d Congress, First Session; both approved August 8, 1953.

⁸ Public Law 815, 81st Congress, Second Session, approved September 23, 1950; and Public Law 874, 81st Congress, Second Session, approved September 30, 1950.

should be grouped, and fixed the formula basis for calculating the amount of the Federal payment.

Public Law 815 in Title II⁹ declared it to be the policy of the United States Government that it would bear the cost of *constructing* needed school facilities in areas in which Federal activities have been or are being carried on, in the manner and to the extent provided under the terms of the Act. Payments were authorized to be made to local educational agencies as specified in the Act where children live on Federal property, their parents are employed on Federal property, or the increased attendance results from activities of the United States carried on either directly or through a contractor.

Responsibility for the administration of both laws was placed by statute in the Commissioner of Education. Each Act also required the Commissioner to submit a report to Congress annually concerning the administration of the program.¹⁰

Experience has shown that the laws as originally enacted were basically sound. Without financial assistance of this character, many of the local school districts would have been unable to provide elementary and secondary education for the children whose families had moved into the federally affected areas. With the changes to be brought about by Public Laws 246 and 248 it is expected that further progress will be made in the direction of simplifying and facilitating the entire school assistance program.

III. Services to State and Local School Systems

One of the major and traditional functions of the Office of Education is to provide information, consultation, and advisory service concerning the operation of State and local school systems throughout the Nation. This function has its origin in the basic Act of 1867, which specifies that one of the purposes for which the Office was established was that of

... diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems ...

One of the major organizational units in the Office which are responsible for the carrying out of this responsibility is the Division of State and Local School Systems.

In providing these statutory services, both the vastness of the American educational enterprise (25 million elementary school children in 135,000 schools and 7 million secondary school children in 27,000

⁹ Activities under Title I of Public Law 815 are treated in Section III of this report.

¹⁰ For a detailed discussion of the operations of this program under Public Laws 815 and 874 (81st Congress) as amended and extended by Public Laws 246 and 248 (83d Congress, First Session), see pages 171-173.

schools in 1952-53) and the long tradition of State and local control of education have led the Office to rely very heavily upon the departments of education in the various States as an intermediate point of contact. Thus, during recent years much of the work of the Office has been carried on in close collaboration with the State departments, including many joint conferences and parallel activities on educational problems of mutual interest and concern. The work of the National Council of Chief State School Officers has been particularly significant and useful in facilitating the development of these cooperative Federal-State relationships in education.

The services provided by the Office to State and local school systems are widely diverse and varied in character. Yet they are all directed at the common statutory objective of "aiding the people of the United States in the establishment and maintenance of efficient school systems."

SCHOOL ADMINISTRATION

During the year a considerable amount of attention was given to a study of State legislative provisions designed to promote statewide school district reorganization which would result in the establishment of more effective local school districts. This study involves an analysis of the principal legislative features in the respective States which embody statewide plans for school district reorganization. From a study of such laws and their respective results, it is hoped that an evaluation may be made which will indicate the type of legislation likely to produce the best results in other States which seek to improve local school district organization.

In the area of local school administration a study relating to reorganized school districts established in recent years was completed. Information obtained from this study is now available in two new bulletins. One of these bulletins gives an analysis of various size and sociological features of 552 reorganized local administrative units in eight States. The other sets forth some of the major changes made by these districts in improving their educational programs.

A related study was initiated which involves an intensive investigation of the redistricting programs in 16 States to identify and evaluate factors which influence local communities to take favorable action in establishing more effective school districts. A considerable amount of information was collected on factors relating to reorganization legislation, school finance provisions influencing reorganization, the State leadership and services provided, and the local community procedures involved.

A major activity in the area of State school administration during the year was related to improving basic statistical information for American education. Educators and others have long recognized the

need for nationwide comparability of educational information. During 1953, American education moved a long way forward toward its goal of establishing comparability of educational information. One of the results of the year's undertaking was the completion of *Handbook I, The Common Core of State Educational Information*, which contains the basic items of educational information, with definitions, that every State should have available annually.

The National Council of Chief State School Officers has officially accepted the Handbook as the fundamental guide for State educational record and reporting systems and has urged all of the States to incorporate the Handbook information into their State systems. Handbook I is the first of four handbooks planned in the Office of Education series to establish comparability of educational information. Similar handbooks are planned in financial, personnel, and property accounting.

Closely associated with the project for improving basic statistical information throughout the Nation was the study of the annual and biennial reporting practices of State boards of education and chief State school officers, completed in 1953. This study was a joint enterprise conducted with the Study Commission of the National Council of Chief State School Officers which culminated in the publication, *The State Department of Education Report*.

In the area of school finance, the study, *Expenditures for Education at the Midcentury*, was completed and the printed bulletin will be available shortly. In this study, data were included for 63,402 school administrative units which operate schools in all the States and outlying areas. The report discusses variations in levels of expenditures per classroom unit, showing ranges both within and among the States and other areas. Charts, tables, and discussions also pertain to financing basic State programs of education, evaluation of educational equalization, ability and effort to support public schools, and progress in financing education during the past 10 years.

Work on another report supplementary to the expenditure study was also started near the end of the fiscal year. This supplementary report will include data for the 12 States which reported separate data for white and Negro children. The report will present expenditure levels for classrooms of Negro children so they may be compared with State averages and with corresponding levels for white children in these 12 States. Comparisons will be presented showing the situation for the 1949-50 school year in contrast with that for 1939-40.

SCHOOL FACILITIES

During fiscal 1953, leadership and consultative services were provided to State and local school systems relative to the Nation's largest annual school building program in history.

The status phase of the School Facilities Survey (Title 1, Public Law 815, 81st Congress) was completed in 43 States, and, at year's end, this phase of the study was still in progress in other States. Progress reports have revealed some alarming shortages and unsatisfactory conditions in the public-school plants of the Nation (see charts 2 and 3).

Chart 2.—PERCENT OF PUBLIC ELEMENTARY AND SECONDARY SCHOOL PUPILS HOUSED IN BUILDINGS RATED BY THE STATES IN 1951 ACCORDING TO DEGREE OF FIRE SAFETY (DATA FROM 42 STATES ENROLLING 19,002,362 PUPILS IN 1949-50)

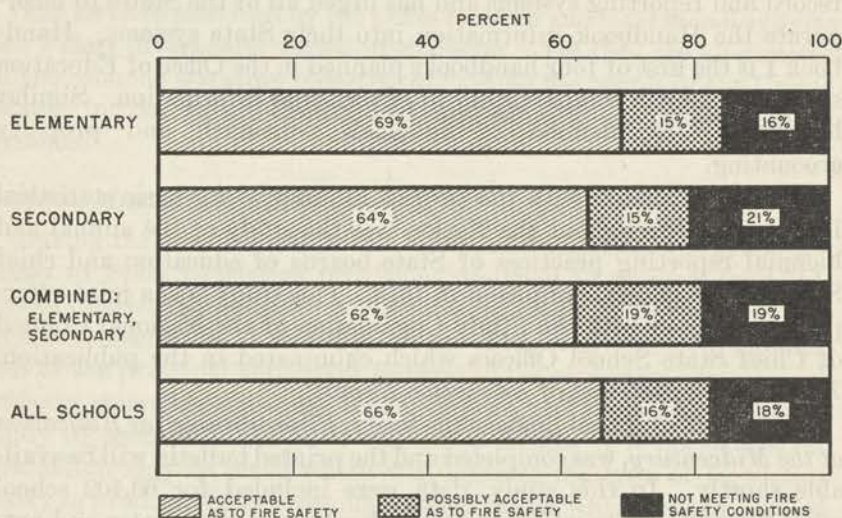
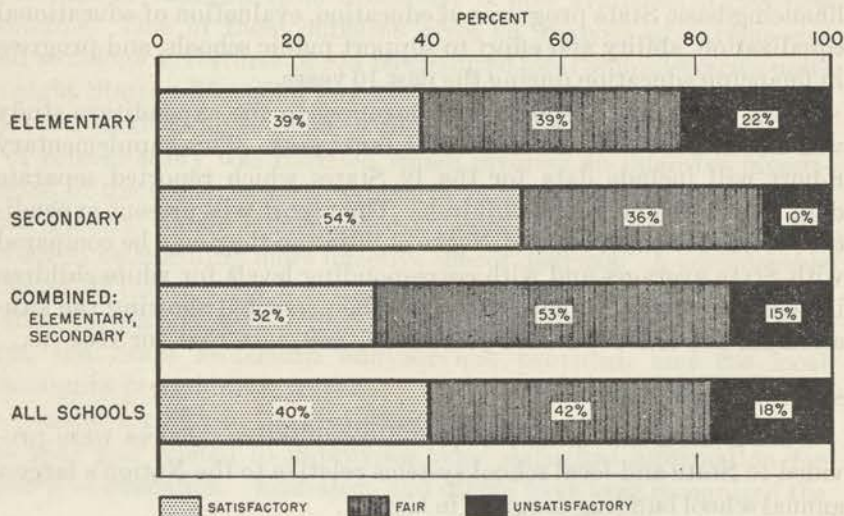


Chart 3.—PERCENT OF PUBLIC ELEMENTARY AND SECONDARY SCHOOL PUPILS HOUSED IN SCHOOL PLANTS RATED BY THE STATES IN 1951 AS SATISFACTORY, FAIR, AND UNSATISFACTORY (DATA FROM 43 STATES ENROLLING 20,156,045 PUPILS IN 1949-50)



The forthcoming *Report on the Status Phase of the School Facilities Survey* will give the first nationwide comprehensive picture of the schoolhousing situation and the funds required to provide adequate schoolhousing. During fiscal 1953, many of the States started the long-range planning phase of the survey which will be substantially completed during fiscal 1954.

Assistance to school officials and architects on layout patterns was continued by a cooperative study of the space and facilities of elementary classrooms, resulting in the first of a series of brochures on the functional layouts of specific areas of the school plant. Continued studies of functional patterns of school furniture and equipment included a study of the body measurements of school-age children, thus providing basic data for the design of school furniture and equipment.

Specific services were provided to State and local school systems relative to school plant management problems including preservation of school property, plant operation and maintenance programs, safety, and community and summer use of school plants. Attention was given to school plant services in the State departments of education, especially in connection with the development of codes and regulations, school building surveys, and functional-planning service to local districts. The Office also developed construction estimates, school building cost analyses, and technical data, and made this information available through school plant planners and architects, professional magazines, and the daily press.

SERVICES TO ELEMENTARY EDUCATION

During the year two members of the Elementary Education staff worked as members of the Mid-Century Committee on Outcomes for Elementary Education. Many others assisted as the work of the Committee progressed. The published report is now in print.

Emphasis is being continued on helping school people improve their ways of helping children learn to read, write, think, and develop creativity. This is being accomplished through publications, consulting with leaders of more than 60 lay and professional organizations, conferences, speeches, and advising teacher groups who seek help in these phases of their school program.

The staff is continuing to give leadership to lay and professional organizations directed to a better articulation of effort, closer collaboration on programs, and an evaluation of gaps in educational services to children. As an example, staff members assisted the Girl Scouts in working out a comprehensive program of Scouting for girls of migrant families. Several organizations were drawn in to articulate their programs along with that of Scouting. This pilot effort was begun in the State of California in June of 1953.

Staff members worked with the Department of Labor on materials to emphasize the importance of children returning to school in the fall. The Elementary Section and the Children's Bureau also worked together during the year on two projects of long-range significance: programs for State Training Schools and ways to improve extended school services for children of working mothers.

A considerable amount of staff time during the year was spent in helping to orient, advise with, and develop visitation programs for foreign educators. Individual and group conferences were held and visits to public schools were arranged.

A number of American educators, going to missions abroad, were also assisted. They were advised on ways of working, appropriate professional books were recommended, and lists of suitable instructional materials for developing educational programs in underdeveloped countries were prepared. Reports of educational projects were studied, activities evaluated, and recommendations for certain improvements were proposed.

Five members of the staff continued to serve a clearinghouse function of sending helpful information and descriptions of good practices to local school people faced with the migrant farm family problem. Cooperative relationships were strengthened with other Federal agencies and lay organizations. Leadership and assistance were given to the personnel of about 23 State departments of education helping them to render better service to local communities in regard to the educational problems of migrants. A major part of a seminar report on the problems of migrants was written and published. Well over three hundred requests for materials were filled.

SERVICES TO SECONDARY EDUCATION

A study, *Statistics of Public Secondary Day Schools, 1951-52*, was completed during this fiscal year. Some of the significant highlights of this study were "The number of high schools with extremely large enrollments is decreasing as is also the number of high schools with extremely small enrollments. . . . The trend toward reorganized high schools has been accelerated since 1946. In 1952 reorganized high schools constituted about three-fifths of the entire number of high schools in the Nation and enrolled about three-fourths of all public high school pupils. . . . In 1952 men constituted 48 percent of the total professional staff . . . the highest proportion reached during the last 30 years."

A pressing and continuing problem in the high schools involves the difficulty in teaching pupils with widely varying interests and abilities in the same school and often in the same class. A questionnaire study has been launched to find out the practices actually used in dealing with fast and slow learners in eight different aspects of

school work. From a sample of 1,200 high schools, 850 questionnaires were completed and returned. These replies are currently being tabulated and analyzed. The purposes of the study are (1) to determine present practices and (2) to identify schools unusually effective in this regard so that they may be studied more carefully.

"Pupil Appraisal Practices in Secondary Schools" was the theme of the fifth national conference sponsored by the Office of Education and the Commission on Life Adjustment Education for Youth. In attendance were approximately 200 participants who were nominated by chief State school officers, State directors of secondary education, and members of the Commission.

Consultative services were provided for many educational programs which are operated by other Government agencies. For example, 2 specialists spent 2 weeks each helping the Army to improve its literacy education program (reading, writing, and arithmetic) for draftees. One specialist spent 3 months, at the request of the State Department, advising the Ministry of Education in Turkey. For the foreign teachers, trainees, and leaders interested in secondary education who were routed through the Office, the entire staff was involved in group orientation conferences, individual counseling, and cooperation with State and local educators in planning study activities.

Staff members also cooperated with numerous professional associations by serving on committees, speaking at meetings, and writing for yearbooks and magazines. The Office and the American Association for the Advancement of Science jointly planned, conducted, and reported (in an Office publication) a conference on identifying and teaching pupils who are talented in science and mathematics.

EXCEPTIONAL CHILDREN AND YOUTH

A major project during the year was the continuation of the study, *Qualifications and Preparation of Teachers of Exceptional Children*. The project will continue during 1954 and from it much information should be obtained which will be useful in reevaluating the college programs for the training of teachers and in establishing realistic qualifications for teachers in the various fields.

Collaborative efforts with the Children's Bureau continued on the production of materials for public-school personnel concerning the control and prevention of juvenile delinquency. A new bulletin in this field is ready for publication and eventual distribution to the State and local schools.

A complete review and summarization of legislation adopted by the various States concerning the education of exceptional children was made and the results published in *SCHOOL LIFE*. This review brought up to date the original publication of 1949 and indicated a rapidly

developing legislative program in which 46 of the 48 States participate.

In cooperation with the Research and Statistics Section, statistics of public-school special education facilities were collected during the year. These data will form the basis for the first such report that has been made available since the statistics for 1947-48 were published. They will appear in bulletin form as a part of the Biennial Survey of Education early in fiscal '54.

VISUAL EDUCATION SERVICE

The Visual Education Service continued during the year its systematic cataloging of information about motion pictures and film-strips of all Government agencies which are available for public educational use in the United States. Descriptive copy on 1,070 such films was prepared for the Library of Congress to use in printing and issuing its catalog cards. A special catalog of 528 Government films cleared for television use has also been prepared. Cooperation with the Library of Congress continued in the formulation of definitive rules for cataloging films leading to the issuance, in March 1953, of a revised edition of such rules. The Chief of the Visual Education Service served as manager, then as observer of a UNESCO conference on international standards for film cataloging held in Washington during May 1953.

The Visual Education Service also continued to serve as the primary point for the release of Government films for educational use and to administer the GSA contract covering the sale of copies of such films. During the year, 166 films were released for sale, while 7 were withdrawn from sale. At the end of the year, 2,750 motion pictures and film-strips of 22 different agencies were being sold under the GSA contract.

The 1951 directory of 2002 film libraries was revised and sent to the Government Printing Office as a 1953 directory of 2,660 film libraries. This State and city directory of 16mm loan and rental sources was prepared, as were previous editions, with the cooperation of the American Library Association, Association of Chief State School Audio-Visual Officers, Educational Film Library Association, National Audio-Visual Association, and the National Education Association.

SERVICES TO LIBRARIES

About 100 years ago, the first public library, as we know the term today, was founded in the United States. A survey just completed by the Office of Education shows, among other things, that 7,477 public libraries are now operating in the United States; and that these institutions own some 149 million volumes, circulate about 413 million volumes annually, and spend \$109 million yearly. The data also show

that 60 percent of the Nation's public libraries have annual budgets of less than \$4,000 per year and that some 30 million people are still without any local public library service.

Standards for school libraries are important instruments for checking upon the effectiveness of the library in the total school program. With this in mind, an analysis was made during the year of the standards formulated by State departments of education and four regional accrediting associations. The findings show: an almost universal adoption by State departments of education of library standards or recommendations for secondary schools; a widespread extension of library standards or recommendations to the elementary school; and greater emphasis on the functions and services of the library than on purely quantitative library requirements as was formerly the case. The results of this study appeared in the *Bulletin of the School Library Association of California* for May 1953 and in *School Libraries*, official publication of the American Association of School Librarians, for July 1953.

The current widespread shortage of trained, competent librarians renders acute the problem of adequate opportunities for library education. To provide college and university executives, school administrators, public librarians, and prospective students with an impartial and timely review of the current pattern of professional education for librarianship, research has been undertaken to ascertain the number of course offerings, curriculum changes, and admission and degree requirements. It was found that more than 500 institutions of higher education now offer courses in librarianship in an effort to meet current library needs.

Rises in operating costs and generally static incomes in the last 5 years have caused university and college executives and librarians to view critically the adequacy and efficiency of library resources, use, expenditures, and personnel required in higher educational institutions. To provide objective data on these points a nationwide statistical survey was undertaken covering the fiscal year 1951-52, and is now nearing completion.

RADIO AND TELEVISION SERVICES

The fiscal year just ended was one of transition, in several respects, for the Radio and Television Services Section.

Up to late spring of this year, educational institutions in each of the 242 local areas where the Federal Communications Commission had tentatively designated a TV-channel for educational station assignment had been concerned primarily with the legal, technical, and fiscal aspects of building stations. However, by the year's end, 3 educational TV stations had been built and 2 of them were in operation. Furthermore, construction permits for 17 others had been

granted and 47 applications were on file with the Federal Communications Commission awaiting processing. Satisfied with this showing, the Federal Communications Commission announced that the 242 channel reservations for education would be continued indefinitely. Relieved of pressure for immediate station construction, educational station planners are now including all aspects of programing and station operation in their planning activities.

In the meantime the Radio-Recordings Program which was started 15 years ago to give teachers an opportunity to explore the educational potentialities of recorded instructional materials, was judged to have performed its pioneering function and was accordingly discontinued. This library of educational program recordings is now in process of being distributed among the various State, regional, and city schools, as well as among the instructional materials distribution centers that have grown up in this field in recent years. A small new Reference Resource Materials Library has been established in the Office in recognition of the desirability of retaining a representative sample of instructionally useful material in the broadcast media field for study by instructional materials specialists and educational program producers.

The principal focus of the work-study program of the Joint Committee of the Office of Education and the Radio-Electronic-Television Manufacturers Association on the use of communications equipment in education has shifted during the year from equipment to teaching. The three earlier studies of the Committee each dealt with a single class of communications equipment and undertook to discover and describe all the instructionally useful things schools were doing with it. However, its fourth study started with actual instructional jobs the schools must perform and undertook to discover how their accomplishment might be facilitated through the imaginative use of various types of communications equipment. Thus, the Committee's latest information booklet, *Teaching with Radio, Audio, Recording, and Television Equipment*, identifies a number of instructional and activity objectives, and explains various combinations of equipment and instructional procedures by which each can be accomplished.

IV. Services to Vocational Education

The responsibility for vocational education as a function of the Office of Education has its origin in the Smith-Hughes Act, which provides Federal funds to assist the States in the promotion of vocational education. This act and subsequent Federal vocational education statutes recognize that the welfare and economy of the Nation are based on the productive capacity of its workers. The program of vocational education is a Federal-State cooperative educational endeavor.

States and local schools have the responsibility for planning and operating the programs. The Office of Education through its Division of Vocational Education has the responsibility for (1) administering the Federal Vocational Education Acts, and (2) assisting States in the promotion and further development of their programs.

The chief purpose of vocational education is to fit youth for useful employment. It develops not only job skills but also the abilities, understandings, attitudes, work habits, and appreciations which are necessary for a productive and satisfying life.

Federal funds appropriated for vocational education programs in the several States and Territories in fiscal 1953 amounted to \$25,811,590.90. Allotments of these funds to States were for the purpose of assisting them in providing vocational education in agriculture, home economics, trades and industry, distributive occupations, and the training of vocational teachers in these occupational fields.

The scope of the program in 1953 may be measured by the fact that more than two-thirds of the high schools of the Nation provided vocational training in one or more fields, i. e., agriculture, distributive occupations, homemaking, and trades and industries. Over 3.1 million youth and adults were enrolled in these vocational classes.

Much of the time of the Division staff was devoted to activities required in the administration of the Federal appropriation of \$25.8 million, which was allotted to the States and matched by State and local expenditures of more than \$120 million. Other activities of the Division during 1953, directed toward the further development and improvement of the program, included work such as that described below.

REAPPRAISAL OF PROGRAMS OF VOCATIONAL EDUCATION

Because each State board for vocational education has final responsibility for the vocational education program in its respective jurisdiction, the work of the Division of Vocational Education in the Office of Education is largely with the professional staffs of the State boards. During 1953 the Division gave special attention to assisting States in developing their leadership with the idea that States should assume more responsibility for maintaining standards and for extending and improving the program. This emphasis was exemplified by the work of the Division with a committee consisting of four chief State school officers and four State directors of vocational education, and known as The Commissioner's Advisory Committee for the Further Development and Improvement of Vocational Education. The purpose of this Committee is to study the entire field of vocational education of less than college grade and to make suggestions and recommendations which would, in the opinion of the Committee, result in the further development and improvement of this phase of education.

The staff of the Division also gave a great deal of attention to analyzing its own activities in relation to objectives and purposes which the staff believes should be achieved in the next 5 or 10 years in the field of vocational education. This involved defining the unique responsibilities of various members of the staff for coordination, for leadership in program development, for administration, and for analysis of the special needs for vocational education in the United States. Statements of philosophy, procedures, and activities were developed for use both within the Division and in work with States. Special emphasis was put on techniques for finding out what problems in each State should be given special attention in subsequent field work of the staff. Division policies, procedures, and objectives in holding conferences of State personnel were reexamined with the objective of achieving greater effectiveness in the development of State leadership through such conferences.

SERVICES IN EVALUATION AND SUPERVISION

Special emphasis was given to assisting States in their evaluation of vocational education programs. Staff members of the Division provided leadership for State personnel in developing and using criteria for use in evaluating training, in evaluating programs for the training of vocational teachers, and in reexamining and reorganizing the administrative operations at State and local levels.

Consultative service was provided also to States in developing procedures for improving their programs of supervision. Specifically, assistance was given to a committee representing several States in developing a guide for evaluating and supervising, and in considering ways to improve State supervisory programs. In another instance, staff members worked with professional personnel from 8 States to study ways of improving supervision, and to consider such problems as (1) setting up research programs to determine effectiveness of supervision in the State, and (2) finding ways of evaluating different procedures and devices used in the supervisory programs. In still another instance, the staff of the Division assisted in developing a manual and guide for the use of State and local supervisors in reviewing and evaluating local programs. Several States are now using adaptations of this manual with a high degree of success.

A bulletin, *The Operation of a Local Program of Trade and Industrial Education with Emphasis on Improving Instruction through Supervision* (Vocational Division Bulletin No. 250), was published and has had extensive use in improving supervision.

These and other efforts of the Office grew out of the States' interest in developing improved supervisory procedures to provide maximum aid to local schools with the ultimate idea of developing criteria against which a local community could measure its own program.

SERVICES TO YOUTH ORGANIZATIONS

With the increased necessity for young people to develop the ability to carry specific responsibilities, the Division assisted State staffs in further strengthening leadership training programs for youth organizations whose members are enrolled in vocational classes in agriculture and homemaking—Future Farmers of America, New Farmers of America, Future Homemakers of America, and New Homemakers of America. These organizations have a combined membership of approximately 815,000.

SERVICES IN TEACHER EDUCATION

Because of the shortage of teachers and other leaders for vocational programs, particularly in the field of home economics, the Division worked with the National Association of State Directors of Vocational Education in developing criteria to guide State boards and colleges and universities which train home economics teachers to reexamine their programs for the selection and training of such teachers to the end that more and better teachers may be available.

SERVICES IN INTERNATIONAL EDUCATION

Although the Division does not have direct responsibility for bringing groups of educators from other countries to study our vocational education program, or for assigning vocational educators to assist other nations in developing vocational education, much time and effort was spent in this work. Activities consisted of recommending standards for selecting persons to be sent on foreign assignments in vocational education, in securing lists of persons who were interested in such assignments, in briefing such persons before their departure, and in interviewing them upon their return. Even more time and effort was devoted to working with foreign visitors; specifically in making arrangements with State and local schools for their visits, planning and conducting programs of orientation for visiting groups, interviewing individuals preliminary to their observation of vocational education in States and local communities, and again interviewing them before their return to their own countries.

SERVICES IN PRACTICAL NURSING

In cooperation with the Public Health Service, the Office of Education gave special assistance during the year in the development of courses for training practical nurses. The growth of this program is indicated by the fact that in fiscal year 1952 there were approximately 160 communities providing such training under public-school supervision, whereas in fiscal year 1953 the number had increased to approximately 185 communities. Part of this increase was due to the

participation and support of nursing, medical, and hospital organizations and part to the need for more help of a semiprofessional nature in hospitals. Schools of all types are now graduating about 3,000 practical nurses a year, most of whom are graduates of the courses conducted under the vocational education program.

SERVICES IN RESEARCH AND NEW AREAS OF WORK

Supplementing the assistance given to States through conferences and visits to the States by staff members, the Office of Education stimulated research on emerging problems during the year by publishing the following printed bulletins relating to vocational education:

With Focus on Family Living: The Story of Four Experiments In Community Organization for Family Life Education. Vocational Division Bulletin No. 249.

Summaries of Studies in Agricultural Education. Vocational Education Bulletin No. 251.

Home, School, and Community Experiences in the Homemaking Program. Vocational Division Bulletin No. 252.

V. Services to Higher Education

During the fiscal year 1953 the Division of Higher Education used its resources:

1. To assist in an orderly expansion of facilities and programs in higher education
2. To provide information on program costs and student expenditures
3. To clarify policies and procedures relating to college accreditation and licensure in the professions
4. To administer Federal grants for resident instruction in the land-grant colleges, and otherwise to serve these institutions, and
5. To further international understanding.

Some of these functions were the responsibility primarily of one of the Division's three Branches: College and University Administration, General and Liberal Education, or Professional Education; others involved two or all three Branches.

EXPANSION OF FACILITIES AND PROGRAMS IN HIGHER EDUCATION

Facilities.—The present enrollment in colleges is approximately the same as the enrollment in secondary schools was in 1920. There are now approximately 8,500,000 persons 18 to 21; by 1970 there will be about 14,250,000 persons in this age group, an increase of 67 percent. Fewer than half the States have any systematic means of determining

what facilities are needed for higher education and where they should be located.

During preceding fiscal years the Division had undertaken a comprehensive study of existing space and of needed additional facilities at the college level. This study was reported in the bulletin, *College Building Needs*. The data in this report have been kept current through the program of rationing controlled materials which the Office of Education conducted as the agent of the National Production Authority. The data have been expanded through the continuous inventory of the physical facilities and staff resources of this country's colleges and universities. The purpose of this inventory is to determine the facilities and resources possessed by each institution of higher learning that might be used to train technical, professional, and other specialized personnel required to meet the Nation's obligations at home and abroad. The inventory has been widely used by Federal and State agencies and by voluntary organizations having a stake in the planning and the development of programs of higher education.

College housing loan program.—An agreement between the Administrator of the Housing and Home Finance Agency and the U. S. Commissioner of Education enables the Division of Higher Education to provide an educational advisory service on the College Housing Loan Program under the provisions of Title IV of the Housing Act of 1950 (P. L. 475). In carrying out this advisory function liaison is maintained with such organizations as the American Council on Education, the Land-Grant College Association, and the National Education Association. Staff members meet with groups of educators in National, regional, and State conferences to consider ways of providing urgently needed housing.

During the past fiscal year 116 applications for college housing loans were reviewed. The total value of loans requested was \$69,362,887. Of this amount \$63,124,745 was recommended for approval. Most of these applications were from institutions in which a backlog of housing need had existed for 10 years or more. In each instance the institution was required to justify the proposed housing project on the grounds that it was defense-related or made necessary by the college's location in a defense area characterized by a critical shortage of housing.

At the end of fiscal year 1953 the sum of \$86.5 million of the total amount of \$300 million authorized by Congress for loan purposes, had been committed. Facilities completed or under construction will accommodate some 600 student and faculty families and 25,661 single students.

Education for the professions.—The professions render highly specialized services to society which can be provided only by persons who have had prolonged training at a high intellectual level. They

include about 6 percent of the working force of this country—upward of 4 million persons. The day-to-day functioning of the Nation depends heavily upon professional people.

The Division of Higher Education has begun a long-term study of professional education in the United States. During the past fiscal year a series of articles on professional education has been appearing in the periodical, *Higher Education*. Among the fields covered were engineering, forestry, journalism, law, librarianship, medicine, nursing, optometry, pharmacy, theology, veterinary medicine, public health, business administration, home economics, and hospital administration. These articles, in revised form, together with additional material, are being prepared for publication in an Office of Education bulletin, *Professional Education in the United States*. There is a great need for a publication which brings together the principal facts about professional education.

Health professions.—In recent years several groups of professional schools have shown collective interest in improving the quality of teaching. Among these have been the schools of dentistry and the colleges of pharmacy. The staff of the Division has assisted both of these groups in the conducting of conferences and seminars designed to improve instruction in these two fields.

Engineering.—The annual study of Engineering Enrollments and Graduates, made jointly with the American Society for Engineering Education, was published during the year as Office of Education Circular No. 364. Data were also gathered to make possible a revision of tables in Bulletin 1949, No. 15, *A Survey of Cooperative Engineering Education*. The up-to-date information is included in Office of Education Circular No. 368. An article on "Engineering As a Career," was also prepared for the January 1953 issue of *SCHOOL LIFE*. This article contains the kind of information about the profession and the qualifications and abilities needed by prospective students of engineering that should be brought to the attention of interested high-school students.

Teacher education.—During the past year the most significant development in the field of teacher education has been the organization of the National Council for Accreditation of Teacher Education. The organization of this Council constitutes the first effort to bring to bear the major forces in teacher education on the problem of accreditation. Only 274 of the 1,217 institutions that prepare teachers are accredited by an agency national in scope. It is hoped that the Council can increase that number and also keep standards high. This new Council is made up of 21 members representing State departments of education, colleges and universities that prepare teachers, classroom teachers and administrators, and boards of education. The Division

of Higher Education has assisted in organizing this Council and is represented on its panel of consultants.

As a part of the movement to raise standards in teacher education, the Division cooperates with the National Education Association in the biennial publication of a description and an analysis of the teacher certification requirements in each of the 48 States and the Territories. During the fiscal year a revision of this publication was issued, entitled *A Manual on Certification Requirements for School Personnel in the United States*.

Specific help was given to three States during the year on their problems relating to teacher education. Consultant help has been provided to the public-supported colleges in Virginia on their curriculum for the education of teachers. Similar assistance has been provided to institutions in Arkansas, where a special experiment under Ford Foundation sponsorship is in progress. Consultant service on the problem of teacher supply and demand for the next 10 years in the State of Maryland has also been provided. This project has resulted in a redistribution of the functions of teacher education among the public and private institutions in that State.

Shortage of teachers.—In the fall of 1952, data were collected from State departments of education showing the number of qualified teachers needed to staff the schools in each State and the number of teachers not fully qualified to whom temporary or emergency certificates had been issued. Comments were also invited from State departments of education as to the outlook for an adequate supply of teachers.

General education.—General education seeks to prepare young people to become good citizens and to deal effectively with contemporary problems. It is concerned with the needs students have in common rather than with their specialized cultural or professional needs. The increasing compartmentalization of American higher education and the increasing number of students seeking a college education help to explain why the development and administration of adequate programs of general education present many difficulties. The importance and difficulty of building adequate programs of this kind also are reasons why the Division of Higher Education has concerned itself with the problems of general education.

During the fiscal year 1953 visits to eight representative institutions of higher learning (Colgate, Colorado, Columbia, Denver, Oklahoma A and M, Princeton, Rochester, Syracuse) afforded first-hand impressions of their programs of general education as well as of programs for the preparation of teachers for the broad field of general education. Conferences with individual staff members and with faculty committees gave an insight into problems of curriculum develop-

ment and instruction, and into types of services which are needed by institutions experimenting with programs of general education.

The need for a clearinghouse for information about the availability of curriculum materials and of reports of experimentation in general education was clearly established. So also was the need for a list of leaders who could be consulted about programs in their own institutions and the development of new programs elsewhere. The Division of Higher Education, therefore, has proceeded to collect information of this kind from institutions having substantial programs of general education. Data have been received so far from about 20 institutions, and the cooperation of other colleges will be sought in the fall. The information already received has been published in a loose-leaf circular and has been distributed to institutions of higher learning and interested professional organizations. Provisions are being made for periodic follow-up to keep this information service up to date.

Continuing education.—The Ford Fund for Adult Education has made possible a study of certain phases of continuing education. This project is reported in *A Study of Urban Public Adult Education Programs of the United States*, National Education Association, 1952. The Office of Education cooperated in this study, and the section on "Continuing Education for Adults in the Public Junior College" was prepared by a staff member of the Division of Higher Education. Data on meeting the cost of adult education programs were gathered by staff members of this and another Division, and published in the Office of Education Bulletin 1952, No. 8, *Financing Education in Selected Schools and Community Colleges*.

Equality of educational opportunity.—A study has been completed by a member of the staff of this Division which bears on the problem of equality of educational opportunity for white and non-white youth in the District of Columbia and the 17 States maintaining segregated school systems. Data have been compiled on the number of youth in each group enrolled in high school, graduating from high school, enrolled in college, and graduating from college. Information from the 1950 Census on the number of white and non-white youth of school-going age in these States makes possible comparisons that reveal the extent of present disparities.

A study has been begun to discover trends in the provision for higher education of Negroes. When completed it will provide up-to-date information on one phase of the educational status of a group which constitutes an important reserve of manpower. Of particular importance is information about the total number of Negro college students and the courses they are taking, the increased number of Negroes enrolled in Southern institutions of higher learning formerly closed to them, and the removal of racial restrictions in the employment of teachers and other professional personnel.

A staff member has cooperated with 13 private colleges for Negroes in the development of a cooperative testing program to facilitate the admission of qualified students, the awarding of scholarships, etc. More than 2,800 students were tested the first year.

INFORMATION ON PROGRAM COSTS AND STUDENT EXPENDITURES

Cost of Going to College.—There is a growing concern about the continuing rise in the cost of higher education. Such concern is expressed by college administrators, professors, boards of trustees, professional organizations, members of State legislatures, State and Federal governmental agencies concerned with education, as well as by the students themselves and their parents. There is a well-founded fear that rising costs are making it difficult if not impossible for children of low-income families to go to college, thus depriving the Nation of the leadership potential of a substantial segment of its youth. A proposal frequently made for bridging the gap between costs and the ability of students to pay is to provide increased aid through a statewide or nationwide plan of scholarships. At the present time, however, information is not available which would enable legislators or philanthropists to decide what is the best way to aid needy college students.

For the reasons given, the Division of Higher Education has undertaken to collect information on a nationwide scale about the costs students incur in college, how these costs are met, and the relationships which exist among the various cost factors, the sources of funds, and the size of family income. A questionnaire has been devised to obtain this information, and data are being obtained from about 30,000 full-time undergraduate students enrolled in 100 institutions of higher learning. In the published findings, names of students will not be disclosed, but institutions will be identified. It is planned to provide tabulations that take into account geographic location, age, sex, veteran-status, number of siblings, college class, program of study, and type of housing and boarding accommodations.

Student withdrawals.—During fiscal year 1953 the Division of Higher Education began a study of the effectiveness of colleges in retaining students admitted to various programs of study until these programs are completed. Some 20,000 students in about 175 colleges are included in this investigation. Field work on this project will not be completed until the class of 1954 graduates in June of next year.

In a period when there is a dearth of trained manpower the Nation can scarcely afford to have colleges retain to graduation fewer than half of the students they admit. The current investigation should determine some of the primary factors responsible for excessive withdrawals and provide a basis for initiating remedial measures. This project is the first of a series of studies dealing with student popula-

tion. Other studies will deal with the selection and admission of students, and the effectiveness with which college graduates are absorbed into the Nation's working force.

POLICIES AND PROCEDURES RELATING TO COLLEGE ACCREDITATION AND LICENSURE IN THE PROFESSIONS

Nationally recognized accrediting agencies and associations.—During the last quarter of fiscal year 1953 the function of the U. S. Commissioner of Education under Section 253 (a) of the Veterans Readjustment Assistance Act of 1952 (P. L. 550—82d Congress) was assumed by the Division of Higher Education. This portion of the Act requires the Commissioner of Education to publish a list of "nationally recognized accrediting agencies and associations which he determines to be reliable authority as to the quality of training offered by an educational institution."

Under this authority the Commissioner had issued in August 1952 the first provisional list of such accrediting agencies which included the 6 regional accrediting associations and 22 national professional accrediting associations. On October 4, 1952, the *Federal Register* published the criteria in terms of which applications of all accrediting agencies and associations seeking inclusion on the Commissioner's list should be evaluated.

During the past fiscal year the staff members assigned to this work have processed the applications of 16 agencies and associations. They have recommended the addition of but one of these agencies to the Commissioner's list of nationally recognized accrediting agencies.

State boards of dental examiners.—The American Association of Dental Examiners, in connection with its annual meeting, holds a seminar on dental examinations. The staff of the Division has been active in these seminars from their beginning in 1949. They have resulted in a marked improvement in the practices of State boards of dental examiners. They are also producing a better understanding between the boards and the schools of dentistry.

ADMINISTERING FEDERAL GRANTS AND SERVING LAND-GRANT COLLEGES

The staff of the Division has carried on activities related to the administration of Federal grants for resident instruction in the land-grant colleges and universities in accordance with the Morrill-Nelson and Bankhead-Jones legislation. Consultative services concerning the appropriations, the institutions, and legislation have been provided.

FURTHER INTERNATIONAL UNDERSTANDING

During 1951 and 1952 staff members at nearly 500 institutions cooperated with the Office of Education in a study of "Methods Used by

College Social Science Departments To Improve Students' Understanding of Post-World War II International Tensions." During fiscal year 1953 a publication with the same title (Circular No. 362) and based on the data thus obtained was written and distributed to respondents, deans of colleges of liberal arts, and to departments of social science not included in the sample.

In 1950-51 UNESCO held three international educational seminars dealing with the improvement of instructional materials and the teaching of history and geography. The findings of these seminars and problems raised by the participants have continued to be of interest to American teachers and to educators responsible for the preparation of teachers. A member of the Office staff took part in two of these UNESCO seminars and has served on a Panel on the Improvement of Instructional Materials of the U. S. National Commission for UNESCO. During the past fiscal year the staff cooperated with the Department of State by providing consulting services at regional conferences concerned with the problems discussed at the international seminars. These were held on the campuses of the University of Denver, the University of Florida, and George Peabody College. The staff has also provided consultant services to the UNESCO International Conference on Museum Education, held in Brooklyn last September.

During the year, two staff members helped to rewrite *The Story of the Declaration of Independence*, a pamphlet published and sold by the Government Printing Office. Complete responsibility was assumed for the section on historical background and the biographical sketches, and major responsibility for the preparation of teaching aids.

A member of the staff served as a member of the American delegation to the International Study Conference on the Atlantic Community, held at Queens College, Oxford University, England, September 6-13, 1952. He was named Chairman of the Interim Committee for the development of a program in this country in support of the North Atlantic Treaty Organization. More recently a permanent organization, the American Council on NATO, has been established with a representative of the Office as Vice Chairman.

VI. International Educational Activities

Education is an essential key to international understanding and peace. The Office of Education has been engaged in international educational activities since its establishment in 1867. The first report of the first U. S. Commissioner of Education—Henry Barnard in 1868—included a section on educational developments abroad, and an Act of 1896¹¹ reaffirmed this function as a specific statutory respon-

¹¹ 29 Stat. 140.

sibility of the Office. More recently, the work of the Office in the international field has taken on new significance as the services of American education have been enlisted in support of the foreign policy of the United States.

The Office of Education has been called upon to play a leading role in these developments through its Division of International Education. Its varied program includes research; the preparation and exchange of school materials; the exchange of experts, specialists, professors, teachers; programs for visiting trainees; the coordination and development of educational programs for underdeveloped areas; the recruitment of educational specialists to serve in education missions overseas.

The functions of the Office in internal education may be summarized as follows: (1) services to American education; (2) services to other Federal agencies, and national and international organizations; (3) services to education in foreign countries in accordance with international agreements; (4) services for the mutual benefit of education in the United States and in foreign countries. The first function has been the responsibility of the Office since its beginning and has always been financed through direct appropriation to the Office. The second function is an expanding one because of the current interest in international affairs, and it also is one for which the Office must make direct budgetary provision. The third and fourth functions, relating to the implementation of our foreign policy, are delegated to the Office by the Department of State and the Foreign Operations Administration, and are financed by transfers of funds originally appropriated to those agencies.

COMPARATIVE EDUCATION

In carrying out one of its basic responsibilities as a service to American education, studies were published in comparative education during the year—*Education in Sweden* and *Education in Turkey*. The manuscript of another study, *Education in Pakistan*, was completed, and a study of Norway's education system is in preparation. In addition to these studies, *Comparative Education News Notes*, a mimeographed circular issued at irregular intervals, helps keep the Office staff and comparative education specialists throughout the country abreast of recent developments in this field.

The Division supplied an advisory service to American educational institutions in interpreting the prior educational experience of some 2,600 students who came to the United States during the year from 101 countries. This involved the use of some 29 foreign languages. Services to American schools and colleges were expanded during the year by the inauguration of a series of *Teaching Aids for Developing International Understanding*. Analyses of the educational programs

of some 600 faculties and schools abroad were also made in order to advise the Veterans Administration concerning the status of certain courses in foreign institutions in which American veterans proposed to enroll.

Cooperation with international agencies concerned with educational problems gave rise to a considerable volume of activity during the year. Typical functions in this area included the review of various reports and documents submitted by international organizations and the preparation of official "position papers" for international conferences. Officers of the staff, at the invitation of the Department of State, participated in several of these conferences as members of the American delegation and advisers on educational affairs.

Considerable attention was given during the year to the role of foreign languages in the American schools. A 2-day national conference on this subject was held in January 1953, in response to widespread interest in the expansion and improvement of foreign language teaching. More than 350 educators and lay leaders from 31 States attended.

With the cooperation of the American Textbook Publishers Institute, an Educational Materials Laboratory was established during the year, bringing together in one spot reference copies of most of the school textbooks presently available through regular publishing channels. Through this Laboratory the Office is able to provide an unusual and valuable reference service to foreign visitors and to United States personnel working in technical assistance programs abroad, as well as to educators in this country who wish to examine the latest educational materials and texts.

TECHNICAL ASSISTANCE IN EDUCATION

In providing professional advice and assistance to the Technical Cooperation Administration (now a part of the Foreign Operations Administration), the Division proposed and gained acceptance for the development of technical assistance programs in education based essentially on three types of education: *community education*—basically functional education, concerned with improving all aspects of living in the community; *fundamental education*—basically community education where there is no formal school system or the formal school is wholly inadequate; and *technical education*—concerned with helping the individual to acquire the knowledge, skills, and attitudes necessary for increased productivity. Members of the staff visited a number of the underdeveloped areas to advise the TCA and foreign Ministries of Education in the application of modern ideas and techniques to the solution of urgent educational problems.

Additional services rendered to what is now the Foreign Operations Administration included recruitment of education specialists to

fill positions in technical assistance missions overseas. For the technical assistance program, the Office employed 43 educators and assigned them to 12 countries in the Near East, Africa, and South Asia. The Office also recommended qualified personnel for employment by the Mutual Security Agency to fill 18 educational positions in American missions in Southeast Asia.

Professional advice or technical evaluation has been supplied on request from the education personnel in the field concerning education programs, equipment, and materials. This service has included review of lists of vocational school shop equipment and textbooks prepared in the field, examination of lists of instructional materials and supplies proposed for use in elementary and secondary schools, preparation of bibliographies designed to meet particular needs, and review of project agreements proposed to be signed as a basis for establishment of education programs in several of the participating countries.

TEACHER AND LEADER PROGRAMS

During the past year, the Division planned and arranged programs of instruction, study, and travel for almost 800 foreign education leaders, teachers, and trainees. Individual programs were planned for 142 trainees. They came from 22 countries and were brought to the United States for technical training in diverse fields. Also, programs were planned for 312 teacher education grantees under the Fulbright and Smith-Mundt Acts. The teacher grantees were assigned for the first 3 months to 1 of 12 participating colleges and universities where special coordinators devoted their full time to arranging a balanced educational and cultural program. These teachers were then sent in smaller groups to work for a week with a State department of education, and then for 4 weeks in the schools of a single community in 1 of 19 States. In addition, the German Teacher Education Program brought 111 teachers from West Germany this past year.

Under the leader and specialist program, plans were made for 195 leaders. This program, which has been the responsibility of the Office since early in 1952, provides for visits of key people in education from many countries. Visitors represent all fields of education and include representatives of Ministries of Education; college presidents; superintendents of schools; directors of rural education; and a variety of others, many of whom are in policy-making positions in their own countries.

A number of specialists were recruited for a "Workshop on Modern Psychologies and Education," which was held in Frankfurt, Germany.

Another program administered by the Division arranges for the exchange of teaching positions between American and foreign teachers, and recruiting teachers to serve abroad. During the past

year, 244 teachers were placed—141 in interchanges and 103 in one-way appointments.

McCARRAN ACT

Under the provisions of the Immigration and Nationality Act of 1952 (Public Law 414, the so-called McCarran Act), the Attorney General of the United States was directed to consult with the Office in carrying out his responsibility for the approval of schools for study for non-immigrant aliens coming to this country under student visas. During the year, the Office consulted with representatives of the Office of the Attorney General relative to the approving of 523 "Petitions of Approval of Schools for Students." The Office also cooperated in the development of statements of policy, operating instructions, and sets of criteria for the orderly processing of these petitions.

INTER-AMERICAN SEMINAR ON VOCATIONAL EDUCATION

In cooperation with the Pan American Union, the Institute of Inter-American Affairs, the International Labour Office, and the University of Maryland, the Office functioned in August and September 1952, as a co-sponsor of an Inter-American Seminar on Vocational Education, which was held at the University of Maryland. The seminar group was composed of official representatives, specialists, and observers from 19 of the 21 countries comprising the Organization of American States. A total of 141 official representatives, specialists, and observers were registered in the seminar from these countries. Principles and practical procedures for the sound development of vocational education in the Pan American countries were discussed and agreed upon. These principles now constitute an important contribution to the further development of vocational education in the Americas. Follow-up and liaison techniques and procedures are being developed by the sponsoring agencies to support continuing growth in vocational education throughout the membership of the Organization of American States. The success of these international programs was due in large measure to the willingness on the part of educational institutions and organizations throughout the country to cooperate with the Office in making local arrangements for the visitors.

SUMMARY

During the first year of the existence of the Division of International Education a number of problems in administration and professional relationships began to be resolved. A management survey resulted in the establishment of a new divisional structure. Competent specialists were recruited to staff the Division. Important evaluative studies were made. Procedures have been reviewed and refined. An out-

standing achievement was the establishment and maintenance of cordial and effective working relationships with Federal agencies, with State and local school systems, and with private educational institutions and organizations throughout the country. One evidence of achievement is the following resolution adopted in June 1953, by the National Council of Chief State School Officers:

A basic need in the defense of the free world and in the ultimate attainment of a just and lasting peace throughout the world is the development of international understanding. We commend the U. S. Office of Education for its effective administration of the several programs which contribute to this end and for its establishment within the Office of an international branch, which doubtless facilitates the discharge of its many responsibilities in this area.

VII. Research and Statistical Services

Research and the systematic collection and interpretation of the pertinent facts are by general consent the basis for solving many of our educational problems. The Research and Statistical Standards Section is the principal unit through which the Office of Education collects, assembles, and prepares statistical data.

This Section provides research and statistical services to the various specialized divisions of the Office and serves in an advisory capacity in determining the feasibility of proposed research projects and the manner in which such projects can best be carried out. It also provides information, advice, and assistance requested by State and local educational agencies and by individual schools and institutions of higher learning.

State departments of education, city school systems, school principals, college officials, and others are the principal sources of statistical information. The Office relies upon their voluntary cooperation in the gathering of data. These sources of information are at the same time recipients of the benefits of research to which they have contributed. Thus the Office acts as a clearinghouse for the gathering, analysis, and dissemination of the facts that school officials and educational institutions want and need in their efforts to cope with the Nation's educational problems.

The Research and Statistical Standards Section prepares special surveys which are of great importance to the areas they serve. Some of these surveys are produced in collaboration with other divisions of the Office and other agencies of the Government. Such projects present valuable compilations of basic data for educational statesmanship.

The usefulness of this information-gathering function has been especially well illustrated during fiscal 1953. Periodic data from the *Biennial Survey of Education*, the *Survey of Fall Enrollment*, and a special survey of *Korean Veterans in College in the Fall of 1952*

were used to provide tables for House hearings on Public Law 550 (Veterans Readjustment Assistance Act of 1952). The periodic data were also basic in making two important forecasts: (1) a projection to 1960 of enrollment in elementary and secondary schools, by grade, for the third report of the *School Facilities Survey*; and (2) a projection to 1964 of the production of scientists by colleges and universities in the United States.

Extensive liaison and staff services were rendered on such subjects as: child-care needs in the city of Wichita, Kans., a cooperative study by the Children's Bureau, Women's Bureau, and the Office of Education; qualifications and training of teachers of exceptional children; costs incurred by students attending college; special provisions for rapid and slow learners; retention and withdrawal of college students; the common core of State educational information.

Among the major statistical publications of the year was included the *Directory of Secondary Day Schools, 1951-52*. Some 25,000 public and non-public schools are listed in this study, with statistical and accreditation data for each school. (The data on accreditation in this publication are based exclusively on reports from recognized accrediting agencies; the Office does not itself accredit any schools.) This *Directory* has a unique value because of the extent of its coverage, its completeness, its uniformity, and its convenient size and format. With improved methods of compiling data and technological changes in printing, the volume was produced much faster than previous editions, with a substantial reduction in the cost of printing and publication.

A noteworthy response-rate of over 99 percent was achieved in compiling data for the study on *Statistics of Special Education for Exceptional Children*. Since sampling was neither desirable nor feasible in this type of specialized survey, the data were gathered by direct mail inquiry. The survey included, for the first time, all types of public-school systems. (Previous studies were restricted to city school systems.) The all-inclusive direct coverage of this survey is a landmark among statistical studies of the Office.

In order to expedite the publication of data relating to small- and medium-sized cities, plans were made to divide the annual report on *Current Expenditures Per Pupil in City School Systems* into two parts. This procedure was employed also to hasten the publication of *Statistics of Higher Education*.

Because of the increase in the number of cities between the 1940 and 1950 Censuses, a partial sample technique has been used to reduce by 40 percent the number of cities handled for *Statistics of City School Systems*. Only 2,335 of the 3,786 cities are to be used in the study. However, in order to provide for a reasonably adequate number of comparisons among cities within each State, sampling has been

restricted to certain States, and to cities within certain size categories.

Each year the Office faces the problem of slow reports from some of the State departments of education. This delay has frequently led to late publication of the report on *Statistics of State School Systems*. In an attempt to meet this problem in fiscal year 1953, a reasonably prompt estimate of United States totals for the 48 States was published (Circular No. 352) on the basis of data received from the first 24 States reporting.

VIII. Reports and Technical Services

The Reports and Technical Service Section is an Office-wide service authorized "to promote the cause of education throughout the country" through publications, the press, radio, television, and other media which reach the educational profession and the public in general. This Section performs a wide variety of regular and special services for the various Divisions of the Office, other agencies of Government, and organizations concerned with problems of education.

Publications mirror all of the diverse activities of the Office and serve to illustrate the program of the Office as a whole to the educational world and to the general public. They are the chief means for the dissemination of Office research findings and other significant data. They represent the most important avenues of service to school systems, educators, and all others interested in the problems and progress of education.

As part of the statutory function to diffuse information concerning education, two official periodicals—*SCHOOL LIFE* and *HIGHER EDUCATION*—are published monthly and semimonthly, respectively, during the school year. *HIGHER EDUCATION*—which is produced in collaboration with the Division of Higher Education—provides information on Federal activities and policies related to college and university education, reports studies of higher education made by the Office, includes materials from institutions of higher learning and from educational organizations on their policies and activities, and lists new Government publications on education and non-government publications on higher education. *SCHOOL LIFE* keeps its readers informed of important trends in American education. It summarizes research projects of the Office, presents pertinent statistics, reports on Federal activities in education, and offers much additional information useful to educators and the public. All new publications of the Office of Education are announced in *SCHOOL LIFE* each month.

As an economy measure, the free list of *SCHOOL LIFE* was reduced during fiscal 1953 from 10,000 to 2,000 copies. There are approximately 6,300 paid subscriptions. It is expected that this figure will increase during the coming year.

In addition to 40 major publications, 125 processed materials were issued during the year, including bibliographies, a special series of bulletins for the elementary and secondary schools, etc.

Approximately 36,000 pieces of correspondence were handled during the year. Of these, some 4,700 were letters on educational matters addressed to the White House and referred to the Office for reply.

Major cooperative projects undertaken during the fiscal year included:

1. Cooperation with the Atomic Energy Commission and the Federal Civil Defense Administration in preparing a special issue of *SCHOOL LIFE* on the theme "Citizenship for the Atomic Age." This was issued as a supplement to volume 35, September 1953. Sixty thousand copies were printed and distributed.

2. Planning of arrangements for the selection of the 1954 Teacher of the Year in cooperation with the National Council of Chief State School Officers, *McCall's Magazine*, and the National School Public Relations Association.

3. Direction of the Joint Workshop of the Educational Press Association of America and the Department of Classroom Teachers of the National Education Association on improving the effectiveness of educational publications.

4. Planning with the National Education Association, the National Congress of Parents and Teachers, and the American Legion for the 1953 observance of American Education Week.

5. Planning and arranging for the 1953-54 Better Schools Campaign in cooperation with the Advertising Council and the National Citizens Commission for the Public Schools.

6. Cooperation with the National Association of Radio-Television Broadcasters, the Junior Chamber of Commerce of the United States, and the Radio Manufacturers Association in the annual Voice of Democracy contest.

IX. Termination of Civilian Education Requirements Program

With the close of fiscal year 1953, the functions of the Office of Education as the claimant agency for education under the Defense Production Act of 1950 came to an end.

These functions, undertaken first under Executive Order 10161 of September 9, 1950, and Department of Commerce Order No. 127 of November 20, 1950; and subsequently expanded under Executive Order 10200 of January 3, 1951, and appropriate delegations from the Defense Production Administration and the National Production Authority, ultimately included full responsibility for the operation

of the claimant agency program with respect to schools, libraries, museums, and higher educational institutions.

A special Division of Civilian Education Requirements was established in September 1951 to carry out these responsibilities and functioned in this capacity until June 30, 1953. The operations of this program were a major factor in maintaining essential educational services throughout the country during a period of critical shortages of construction materials, equipment, and supplies for school construction, operation, and maintenance.

Food and Drug Administration

Fifteenth Anniversary Year

This report marks the fifteenth year of the present Federal Food, Drug, and Cosmetic Act of June 25, 1938, which replaced the original "Wiley pure food law" of 1906.

When the act was still in its infancy, its administration was transferred to the Federal Security Agency because its basic purpose was to promote the individual welfare of our citizens. The objectives of the Food and Drug Administration are today identical with those outlined by the President when he recommended to Congress the creation of the Department of Health, Education, and Welfare.

Appropriately—a look backward will show the progress of the law since its enactment, while a look at current problems will show unfinished tasks which remain for the years ahead.

The law was a nonpolitical enactment with bipartisan support, primarily to protect the consumer's health and pocketbook, but also to foster fair competition among the regulated industries. Five years of legislative consideration had eliminated practically all disagreement regarding its various provisions. Legal authorities have praised the act as a model of technical legislation.

As it stands today the law has been strengthened by both legal interpretation and legislative action. Two defects in the original language were disclosed by Supreme Court decisions, both of which led to prompt corrective amendments by the Congress.

The first of these amendments, adopted by the 80th Congress, made clear that the jurisdiction of the law applies to regulated products all the way from the point of origin throughout their interstate movement and on through distribution until such products reach the ultimate consumer.

The second, adopted by the present (83d) Congress (see p. 217 of this report) established the right of inspection of all regulated products and the premises where they are manufactured, transported, or held for sale, without advance notice or permission from the owner, operator, or agent in charge.

The 82d Congress enacted an amendment simplifying controls over the illegal sale of dangerous drugs. Testing and certification of insulin and specified antibiotic drugs which could not be controlled adequately by post-shipment sampling, were established by earlier amendments.

The courts strengthened the law in numerous decisions reflecting the principle that a statute designed to protect the public should not be read with strained and technical construction that would defeat its purpose.

Considering that it was enacted on the verge of an era of unprecedented technological change in the food, drug, and cosmetic industries—change accelerated by the greatest war in world history—the 1938 law has been a remarkably adequate and effective statute.

Particularly fortunate was a provision which required the filing of scientific data to establish the safety of new drugs prior to marketing. This provision anticipated unparalleled advances in chemotherapy which have virtually revolutionized medical practice. Instead of old-fashioned shotgun medication to alleviate symptoms, patients can now be provided with high-powered bullets which cure disease when properly used but which can also do great damage when misused. Manufacturers are constantly striving to improve these new drugs: every change requires an amendment to the original file and a new evaluation. The work load and the responsibility have become greater year by year.

The need for the new-drug provision of the 1938 act had already been demonstrated at the time of its passage, but post-war changes in the technology of foods and cosmetics could hardly have been anticipated at that time. Would the daily consumption of new ingredients, hitherto unknown for food use, endanger the public? An entire new group of pesticides, tested only for war use under specialized conditions, became available to every food producer and handler, while the scientists were still seeking to learn more about their toxicity.

Today the housewife buys "ready-to-heat" and "ready-to-eat" food, prepared mixes, and washed fresh vegetables in sealed bags. Never before has so little of the actual preparation of the family fare been done in the home kitchen. Control of its wholesomeness and quality have been relinquished to factory management and "pure food" officials.

The increase in consumption of packaged and shipped food products, coupled with a 25 percent increase in the population since 1938,

is bringing growing complexities in food manufacture, shipping, and storage. The known toxic preservatives in wide use at the turn of the century were quickly abandoned when the 1906 law went into effect, and their use had to be declared on the label. The current additives to foods cannot be handled so simply.

Apart from provisions for the promulgation of food standards, the food law is corrective rather than preventive. It depends upon investigation, detection, and legal action after products appear on the market, and frequently after large amounts have been consumed. Cooperative efforts of industry and Government to protect the public from potentially harmful food ingredients are entirely on a voluntary basis.

The situation in regard to new cosmetic ingredients is similar. The disfiguring products of the past have gone, but new, complex chemicals are being employed, sometimes without adequate tests of their safety.

All such developments have increased the need for new and comprehensive studies and for facilities adequate to deal with a vast expansion in the volume of regulated products.

The report that follows describes some of the activities of the Food and Drug Administration in the fiscal year 1953 to enforce the law controlling domestic products valued at \$50 billion annually, and import products with an invoice value of almost \$3 billion. The direct cost was $3\frac{1}{2}$ cents per capita—or about 1/100 of a percent of the value of the goods subject to the Food, Drug, and Cosmetic Act. On July 1, 1952, the Food and Drug Administration enforcement staff numbered 890. At the close of the fiscal year it had dropped to 862 and faced a further reduction of 52 positions because of appropriation cuts.

The Food and Drug Administration will not slacken activities in protection of health. This will mean decreased coverage in the economic field, and to some extent in sanitation. Since many of the economic and sanitary violations are difficult for consumers to detect, the self-interest of the regulated industries to secure a maximum of voluntary law observance will be of increasing importance.

Food, Drug, and Cosmetic Act

ON THE FOOD FRONT

Health Hazards

Seizures of dangerously contaminated foods averaged 37 tons a week in 1953 and 14 manufacturers recalled foods and feeds from dealers because of hazards discovered after they were distributed.

One thousand eight hundred and seventy-five tons of the food seized was wheat treated with a poisonous mercurial compound for seed use and later intermingled with untreated wheat and shipped to flour mills. In the summer of 1952 this grain was colored pink by the compound employed but in June 1953 a carload was seized containing mercury-treated seed that was colorless. Millers who had been rejecting deliveries of the "pink wheat" could not detect the new treatment by visual examination. The seized wheat was placed under bond and some lots used for the manufacture of non-food products. Other carloads received a scouring treatment under FDA supervision; the unfit scourings were destroyed and the cleaned part released for mill use.

One packer's entire output of Alaska frozen clams, amounting to more than 10 tons, was seized upon arrival in Seattle because it contained a toxin produced by microscopic marine organisms which is capable of causing paralysis and death in human beings. Due to the incidence of these toxin-producing organisms in many parts of Alaskan waters, there had been practically no packing of fresh or frozen hard shell clams in Alaska for the past 5 years.

Three seizures were made of a meat preservative containing thio-urea to prevent discoloration. This chemical, which was not declared on the label, could have caused thyroid disturbances and other injuries to consumers of the treated meat.

Two of the recalls involved specialized infants' foods (see Products of Special Dietary Significance).

The four principal manufacturers of coumarin, on their own initiative, discontinued soliciting sales for food use of this artificial vanilla flavor after they had received reports that it injured the livers of experimental animals. Coumarin has been used extensively in commercial bakery products, packaged cake mixes, ice cream, and chocolate products. The decision to discontinue its sale in food channels, although no case of injury to humans had been reported, is worthy of commendation and indicative of the manufacturers' integrity and high sense of responsibility.

Another recall took place when 66 college students became ill after eating imitation grape jelly. Investigation disclosed a fluoride contamination; the source was not determined, but the use of salvaged foods in the processing was suspected. The manufacturer recalled and destroyed 9 tons of the jelly.

Seizure was effected of decomposed eviscerated turkeys destined for school lunch use after illnesses at a number of points were reported. The trouble apparently originated with long delays in transit from the dressing plant to a freezer some distance away. The U. S. Depart-

ment of Agriculture placed a hold order on all distributions from this plant for sale to the Government under the school lunch program.

To Keep Food Clean

In volume, nearly 6,000 tons, or about 111 tons a week, of decomposed or filth-contaminated food was removed from consumer channels. Of this, about one fourth had become unfit after it had been shipped by the producer.

Table 1.—*Actions on foods during the fiscal year 1953*

Projects ¹	Seizures	Criminal prosecutions instituted	Injunction petitions	Import shipments denied entry
Total.....	1, 239	190	6	4, 030
Beverages and beverage materials.....	23	8	0	151
Bakery products.....	13	18	0	63
Cereals and grain products:				
Human use.....	220	14	0	19
Animal use.....	16	9	0	3
Chocolate, confectionery, and other sugar products.....	49	13	0	261
Dairy products:				
Butter.....	51	17	0	0
Cheese.....	11	12	0	92
Miscellaneous.....	5	0	0	5
Eggs and egg products.....	16	3	0	0
Flavors, spices, condiments.....	74	5	0	2, 213
Fruits and fruit products.....	83	8	1	493
Macaroni and noodle products.....	19	7	0	16
Meat products and poultry.....	77	27	0	7
Nuts and nut products.....	95	1	1	105
Oils and fats.....	3	5	3	6
Oleomargarine.....	0	7	0	0
Seafood.....	190	8	1	506
Vegetables and vegetable products.....	259	12	0	79
Miscellaneous foods and food adjuncts.....	3	0	0	6
Food for special dietary uses.....	32	16	0	5

¹ Each project under which action was taken is reported. The total number of food seizures is 1,220 and of criminal prosecutions is 177. (See table 3.) Each of these totals is less than the totals reported above because table 3 reports combined seizure actions, particularly of warehouse merchandise, and criminal prosecutions against firms that ship foods classified in more than 1 group.

Food factory inspections were cut approximately 3 percent. This was due mainly to the smaller number of available inspectors rather than to refusals to permit inspection after the Supreme Court ruled in December 1952 that the law did not require manufacturers to grant such permission. After this decision there was an immediate response from large segments of the food industry with invitations to continue factory inspections in their plants. While the number of refusals was substantial, the percentage of the total was small. One food manufacturer refused on the grounds that it was not convenient, proper help was not available, "and besides the plant needs cleaning." Two days later the inspector returned and the manufacturer said: "All right, go ahead. I have cleaned up since you were here—no objections."

The extent of examination of raw materials in factories and of samples of finished foods in interstate commerce is planned each year

with a view to the widest possible coverage of foods most likely to decompose or be attacked by insects and rodents. Adverse growing conditions which affect the fitness of raw materials frequently require an adjustment of these plans.

The summer of 1952 was a poor season for tomatoes. Heat, blight, and alternating drought and excessive rains brought rot and heavy insect infestation. Few tomatoes had been packed in many areas by late summer. A State canners association expressed the fear that some canners, desperate because they depended completely on the tomato pack for their income, would be driven to using unfit tomatoes.

Activities of a number of State agencies to control selection of packing stock and keep unfit lots from distribution held Federal seizures to a normal number. More lots were seized because of fly eggs and maggots, in comparison with decomposition from mold, than in previous years.

There has been an improvement in the sanitation of poultry dressing plants and the handling of slaughtered birds. Many of the operators have participated in industry-sponsored poultry improvement meetings and demonstrations. The Food and Drug Administration joined State agencies in assisting in this educational program, and also spent considerable time during factory inspections in pointing out to plant managements the precautions necessary to assure an acceptable product.

The most serious problems found in poultry shipments arose from the inexperience of new operators, and from the slaughtering of diseased and cull birds, which frequently appear on the retail market as cut-up pieces. Other avenues of distribution of diseased and cull poultry have been public eating houses and soup factories that were not careful to reject unfit birds. Recently when a number of soup manufacturers changed their buying policy, merchants of unfit poultry complained that their market was seriously hurt.

The fish industry is one of the most noteworthy examples of change in consumer buying habits. Before the quick-freeze era, the housewife customarily purchased fish "in the round" and had it dressed. Today a large portion of the fish on the market is dressed and frozen at the packing plant. Technical men in the industry have shown an increasing tendency to correct conditions that might result in the freezing of decomposed fish.

There was a materially reduced pink salmon catch in Alaska resulting in heavy importations from British Columbia, which had lost many of its usual European markets. Early importations showed a high incidence of decomposed fish, requiring detention of 5,000 cases of the first 35,000 imported. Corrective measures were taken promptly, and later shipments were free from decomposition.

Canned salmon packed in Alaska is subject to voluntary industry control which has been generally effective in keeping decomposed lots from the market. In 1953, however, the system did not adequately control the output of an Alaskan cannery jointly operated by three firms. Great confusion as to the identity and location of various code lots impeded supervision by the industry of code lots ordered destroyed, and a mixture of decomposed and good cans valued at more than \$126,000 was seized. The lots were subsequently segregated under bond and the decomposed cans destroyed.

One Gulf Coast firm was enjoined from shipping unfit crabmeat, after several warnings by inspectors that employees were contaminating the meat by their insanitary habits.

There was continued improvement in the sanitation of crude vegetable oil mills, discussed in the last report in connection with regulatory work on oleomargarine. A number of mills, however, persisted in using raw materials contaminated with rodent and human filth. Two mills enjoined from shipping crude oils made from unfit soybeans and cottonseed have taken measures to divert large stocks of contaminated raw materials to non-food use, and to provide storage protection for new material received.

Another injunction was granted against shipment of pecan oil contaminated by curculio insects, cigarette butts, and other extraneous matter. Still another prevented shipment of peanut oil and peanut butter made from 3,000 tons of peanuts contaminated by insects and rodents. The injunction listed under fruit and fruit products restrained a vinegar plant from distributing in interstate commerce 314,300 gallons of vinegar and apple juice made from apples containing rot, insects, and worms.

The heaviest fine of the year was \$10,000 assessed against a macaroni firm and its president for shipping macaroni which was insect infested and prepared in an insanitary plant. Both defendants had pleaded guilty to similar charges in 1947 but they vigorously contested this case in a 3-day trial, and have filed an appeal.

Heavy import detentions were made of pepper which arrived at U. S. ports, contaminated by insects not previously found in pepper. The infestation was traced to wheat shipments to famine-stricken India from points throughout the world; the overtaxed transportation and storage facilities had been contaminated by many new kinds of insects that were not exterminated before subsequent use for the pepper and other spices.

Detentions of insect-damaged coffee beans also increased during the year, as a result of high prices which encouraged salvaging of beans that would have been discarded in previous years.

Educational and Regulatory Programs

Programs designed to effect major improvement in the selection, processing, and handling of raw food materials can best be carried out with the cooperation of industry leaders and various agencies in local, State, and Federal governments. Such programs entail widespread preliminary investigations to evaluate the extent of the problems involved and the corrective facilities available, followed by educational programs to acquaint all groups concerned of the objectives and the procedures planned to achieve them.

Wheat and Wheat Flour Program.—The extensive investigational and educational programs conducted in cooperation with grain trade and milling representatives, the U. S. Department of Agriculture, and the Fish and Wildlife Service of the U. S. Department of Interior during 1950 and 1951, and the regulatory program on wheat and wheat flour inaugurated in the spring of 1952, were discussed in the last annual report. The objective of the program was to reduce filth contamination of food grain by rodents, insects, and birds; eliminate such contaminated grain from milling and other food channels; and reduce the agricultural losses due to the depredations of insects and animals.

Inspections were made of terminal and country elevators to check on sanitation of storage facilities. This activity was continued during fiscal year 1953 and brought about many improvements in storage facilities and in the protection of wheat in storage. Through the cooperation of trade groups and other Government agencies the slogan "Grain Is Food—Keep It Clean," was brought to the attention of farmers, grain dealers, and millers via widely circulated publications, posters, and pamphlets and through meetings of trade and agricultural groups. Representatives of the Food and Drug Administration appeared on scores of programs of grain and milling trade associations and farm groups to explain and discuss the grain sanitation program.

The sampling of cars to check for rodent filth contamination was begun in the fall of 1952 and resulted in seizure and subsequent diversion for animal feed use of 45 cars of contaminated wheat. Examination of wheat for insect infestation was postponed pending development of practicable testing methods.

In the spring of 1953 the Secretaries of Agriculture and of Health, Education, and Welfare appointed a 17-man committee composed of representatives of the Departments of Agriculture and of Health, Education, and Welfare; the Fish and Wildlife Service; land-grant colleges; grain producers and dealers; millers and bakers; and sanitarians to make a comprehensive study and review of the problem and to make recommendations to the Secretaries with respect to the grain sanitation program. Further work on sampling cars of

wheat has been postponed pending the report of this Grain Sanitation Committee, which met in August 1953 and was organized into subcommittees to study and report on various phases of the problem.

Cream and Butter Program.—Activities in previous years have brought about many improvements in sanitation in creameries and other plants manufacturing dairy products and have caused more care to be exercised in the acceptance of cream and milk for use in manufacturing food products such as butter and cheese.

Further progress in eliminating filthy and decomposed cream and milk from food channels requires improved techniques in detecting filth contamination and decomposition. During the fiscal year, studies by FDA inspectors and laboratory scientists were intensified. The industry, through a committee sponsored by the American Butter Institute, cooperated in developing improved procedures for detecting filth contamination in cream. The industry group was also active in educational programs to induce producers and dealers to improve the handling of milk and cream to prevent contamination and spoilage. The ultimate objective of this work will be to replace present sampling methods with a test of each can of cream received at the plant, as a part of the processing operation. Present testing procedures are widely variable as to results. Officials in a number of States arranged meetings where representatives of the Food and Drug Administration demonstrated the new testing procedures to industry cream graders.

Fresh Produce Markets.—A series of articles published in Redbook Magazine directed public attention to deplorable sanitary conditions in fresh produce markets in a number of cities. One of the articles was the reporter's account of investigations by Food and Drug inspectors. Further inspections made in cooperation with local health authorities, covered produce markets in over 50 cities throughout the country. Seriously insanitary conditions that exposed fresh fruits and vegetables to filth contamination were found in the markets of some localities. In other cities excellent facilities and practices in the handling of produce were found. The worst conditions were observed in large cities where market facilities had not kept pace with population growth. Overcrowded, antiquated buildings and inefficient facilities contributed to development of insanitary conditions, such as the stacking of produce containers on streets, sidewalks, gutters, and alleyways exposed to street dirt and filth, and contamination by animals and birds.

Regulatory action in those localities where serious insanitary conditions were found will bring further investigations in cooperation with local authorities. Where there are adequate State or city laws or ordinances, enforcement of the local statutes will be most effective.

Sanctions in the Federal statute on produce from interstate sources may be invoked where local statutes are inadequate.

Pocketbook Protection

In the economic field, the principal problem was to discourage the sale of water at food prices. At least a quart was injected into large turkeys by adapting hypodermic needles designed for the injection of curing solutions in meats.

September and October inspections of oyster packing establishments in the Chesapeake Bay area surprised the owners, who had not expected visits until just before the Thanksgiving holiday pack. Fifty-nine seizures of watered oysters produced by 24 plants resulted. Packers, responding to citations, stated that the industry had decided to abandon the competitive practice of adding water to oysters in view of the healthier economic situation that had developed as a result of regulatory actions on the part of Federal and State agencies, the latter imposing their own rigid requirements to protect the locally produced oysters. From the first of November until the end of the season, seizures of watered oysters from this area were negligible.

Five prosecutions were instituted for "butterlegging" operations. One group, indicted by a Federal grand jury, was reported to have handled in excess of a quarter of a million pounds of oleomargarine during the past year. They were charged with illegal shipments and conspiracy to violate the Federal Food, Drug, and Cosmetic Act. FDA inspectors investigating the plant were at first unable to observe any suspicious operations. After making a floor diagram and measuring the outside of the building, which disclosed unaccounted-for space, they persisted with their search and found a concealed room fully equipped with machinery for processing the oleomargarine so that it could be packaged as butter. The delivery and manipulation was usually carried on at night. The "butter" was delivered to a multitude of small grocery stores in the New York area. The case has not yet been tried.

A corporation and its owner were convicted of distributing, in second-hand bulk butter containers, oleomargarine obtained from one of the individuals under indictment. Although the defendant claimed that he thought he was obtaining butter, the court fined him and placed him on probation for a year with the comment that the defendant was aware of the transactions of his supplier.

Another case, terminated by a fine and a 1-year suspended jail sentence, came to FDA attention when an inspector noted one brand of "butter" at a food market offered for several cents below the other brands in the store. Laboratory tests revealed that it was a mixture of colored oleomargarine and butter.

Contaminated Animal Feed

A great economic disaster to the cattle raisers of the south central area led to the recall of two brands of cottonseed feed. Investigation disclosed that the feed manufacturers were using a lubricant containing chlorinated naphthalene which contaminated the cottonseed pellets they were processing. Widespread outbreaks of bovine hyperkeratosis developed in about 25 percent of the herds fed the pellets. State officials monitored the recall and are holding the feed under embargo.

Sea-Food Inspection Service

Shrimp and oyster canners who meet Government requirements for sanitation and controls are eligible to secure the sea-food inspection service, which is supported entirely by fees paid by participating packers. During the fiscal year, 12 canners packed canned shrimp under inspection; 9 of these also packed oysters. This year's inspected pack was 228,036 cases of shrimp and 79,876 cases of oysters. This represents a slight increase of canned shrimp and a marked decrease of canned oysters packed under inspection.

The service has been offered to packers of frozen and fresh iced shrimp, but no packers operated under this service during the fiscal year. The regulations for inspection of shrimp were revised so that in fiscal year 1953 the regulations for canned and frozen and fresh iced shrimp were consolidated.

PRODUCTS OF SPECIAL DIETARY SIGNIFICANCE

Two of the foods recalled from the market in 1953 were specialized products for the feeding of infants. One was canned dried egg yolk which had been fed to many babies who developed salmonella poisoning. The manufacturers withdrew outstanding stocks and began an immediate investigation of the source of the trouble.

The second was a product formulated as a substitute for mothers' milk. When convulsions and other disturbances developed in some babies, the manufacturer first attributed the trouble to water in areas which had suffered long drought periods. No chemical or bacteriological contamination could be detected. Later, FDA chemists noted the similarity in symptoms to those observed in feeding experiments 12 years ago with baby rats whose mothers were on a diet deficient in vitamin B₆. Later reports by pediatricians provided some confirmation of the suggestion that the babies were suffering from a vitamin B₆ deficiency. These investigations focus attention on the need for further study on the nutritional adequacy of "complete" infant formulas.

The last annual report discussed a new investigation into the accuracy of labeling of low-sodium dietary foods, which are used in the management of certain heart conditions.

A market survey conducted in the past year revealed general confusion in the labeling of low-sodium items. Some are labeled "salt (or sodium) free," "low-salt," "unsalted," "packed without added salt," "for use in low-sodium diets," etc. The less than one-third that bore label declaration of the amount of sodium in the product deviated in terms from milligrams of sodium per 100 grams of food to percentages, and there were wide discrepancies above and below the labeled declarations.

To add to the confusion, previously reported sodium values of common foods before processing were often in marked disagreement. The Food and Drug Administration has been working with a task committee of the Food and Nutrition Board of the National Research Council to appraise the over-all aspects of low-sodium therapy. It has engaged in collaborative work on methods, the checking of diets for sodium content, a study of salt substitutes, and an extensive tabulation of values reported in scientific literature for the sodium content of foods. Those whose reported values were in marked disagreement were rechecked by improved methods.

Over 100 foods with low-sodium declarations were analyzed for sodium content and a number were marked for later regulatory action. Particularly disturbing was the finding that some individuals who were producing foods labeled for low-sodium diets were not aware that ordinary table salt does not have to be present to make items hazardous to persons whose sodium intake must be kept to a low and carefully measured level.

One product, labeled "unsalted" broth mix, contained enough monosodium glutamate to supply each serving of broth with 95 mg. of sodium, which is equivalent to about 3 good-sized pinches of salt. Many low-sodium diets are restricted to 250 mg. of sodium for the total daily intake, and this must include natural sodium contained in many foods. Some are so high in natural sodium that they should be excluded from such diets, but canned spinach, beets, and celery juice, which are outstanding examples of foods with high natural sodium content, were found among the "unsalted" foods in the survey.

Likewise, some manufacturers are apparently not aware that sodium must be taken into account when they use numerous products designed to leaven baked items; shorten cooking time of cereals; preserve jellies, fruit juices, oleomargarine, and candy; process hominy and peeled fruits; retard molding in bread and cheese; stabilize ice cream and chocolate drinks; and serve other functions adapted to commercial processing.

The drafting of new regulations was undertaken to provide for the labeling of these dietary foods in terms of their sodium content, so as to enable physicians and heart patients to better calculate the sodium intake.

The other side of the coin, in regulatory work on special dietary products, is control of foods to which health significance is falsely attributed. Claims that such products will ward off or cure disease without resort to medical treatment have caused much unnecessary suffering and loss of life. Twenty-seven seizures were made of vitamin and mineral products and foods with unfounded curative claims. A heavy expenditure of time is required to cover such violations because the promoters are adept at using indirect means, such as lectures, magazine articles, and other collateral literature, to persuade the public to buy their wares. Direct claims of curative properties or directions for use in disease treatment are seldom found on the labels.

DRUG TRAFFIC

Forty recalls of defective drugs were monitored in 1953. In 16 instances, the drugs were removed from the market upon the initiative of the manufacturers, and in 24, the recalls were upon FDA request. Voluntary recalls are increasing, in comparison with those forced when defects come to regulatory attention. In many such cases in the past there was a tendency to withhold information while superficial attempts were made to withdraw defective stocks from distribution channels without disclosing the potential dangers involved. Adequate records were available in the past year to trace and withdraw outstanding lots without the necessity of public warnings by the Food and Drug Administration.

Of the drugs recalled, 13 were below labeled potencies, 9 were non-sterile injection preparations, and 6 were misbranded as to content or directions for use. Among the other defects were injurious ingredients, precipitates, failure to disintegrate (tablets) or melt at body temperatures (suppositories), short volume, and poorly attached labels.

Of the 150 criminal actions instituted for drug violations, 115 (involving 222 defendants) were based on illegal sales of prescription drugs. In a large proportion of the cases both the firm and one or more salesmen were included in the charges. Some of these actions are still awaiting trial. The remainder, and those not tried at the end of the previous fiscal year, brought 106 pleas or verdicts of guilty in 1953. Three jail sentences were required to be served, two on new actions and one for violation of a 5-year probation ordered in 1951 after a 4-year jail sentence was suspended. Eleven suspended jail sentences were imposed in 1953.

Violations have moved progressively from those of pharmacists willing to "take a chance" with customers personally known to them, to deliberate actions, carried out with subterfuge and secrecy, usually

involving sales to persons who obviously should not use such drugs without a physician's supervision.

Refusal by an overwhelming percentage of pharmacists to violate the ethics of their profession has made it possible to concentrate regulatory activities on the fringe operators who are callous to the serious consequences of misuse of dangerous drugs.

Peddling of barbiturates to inmates of a State penal institution and in a veterans' home was disclosed. Reports received from the penal institution indicated that the source of supply was cut off by FDA prosecution of a drug store not hitherto known to have been supplying the smugglers.

In another case, a pharmacist was making surreptitious sales of barbiturates to an addict on street corners at designated times, without knowledge of the owner of the store.

In the same city women seeking to reduce were purchasing amphetamines by "speakeasy" methods. They presented a white box with an "X" marked in pencil on the top and gave the password "tops." The drug in question should be used only under careful medical supervision.

One drug store fined for illegal sales could not account by prescription records for 172,552 barbiturate capsules received from wholesalers or manufacturers.

Again in 1953 a physician was convicted of aiding and abetting illegal sales. He had furnished a druggist with signed blank prescriptions, and whenever the supply of these ran out he signed the prescriptions retroactively.

Two operators of "treatment centers" were prosecuted for deliveries of misbranded drugs to be transported for out-of-State use.

One was an illiterate herb man convicted by a Federal jury after a 6-day trial. He had been treating people from many States for cancer, diabetes, sinus infections, cirrhosis, and other diseases, and sending them home with his herb mixtures. The defendant claimed he had learned the secret of herb medication from his mother, an Osage Indian. At the trial, outstanding authorities in the fields of medicine and pharmacology testified that dependence on his mixtures of mint leaves, boneset leaves and flowers, sunflower and dogwood leaves, and parts of several other plants, supplemented by castor oil and buttermilk, would endanger the lives of those who depended upon them to treat serious diseases.

The jury heard testimony about a woman whose physician, a cancer expert, had recommended surgery for a small breast cancer in 1947, assuring her of an excellent chance of complete cure. Instead, she went to the herb "doctor" and took his preparations for 4½ years. At the time of the trial, her lungs and spine were cancer-ridden and she was paralyzed from the hips down. She died soon after the trial. The

defense presented 20 "living testimonials" who told the jury, without scientific evidence, that they had received benefits from real or imaginary diseases. The "herb doctor" was sentenced to serve a year in jail.

The second case, terminated with a fine, was against an unlicensed operator of a treatment center who depended largely on walnut bark and mild laxatives for his "brew." He suggested that when the patients got their medicine home they add a fifth of whiskey to the 4 quart jars of bark extractives they took with them—for its preservative effects. Hoping to avoid complications with Federal drug laws, he refused to ship refills but referred patients to "runners" who were transporting people to his place and would obtain additional medicine for them. Several appellate courts have ruled, as did the trial court in this case, that the Food, Drug, and Cosmetic Act is violated when the medicine is offered for interstate transportation, even though the "doctor" did not personally make the shipment.

Last year's report discussed an injunction to restrain a cancer clinic from shipping its medicines in interstate commerce, misbranded with cancer claims, which was ordered by an appellate court after the trial court had refused to grant it. In February 1953 the Supreme Court refused to rehear the case and the court of appeals sent an injunction mandate to the district court. The judge refused to issue the injunction decree submitted by the Government, stating that it was too broad. Instead he issued a decree submitted by the defendant's attorney, which would permit marketing the preparations with labeling declaring that there is a difference of competent medical opinion as to the therapeutic value of these medicines in treating cancer. The Government has petitioned the court of appeals to stay and reverse this decree. (In October the appellate court ruled that the language of the decree was in direct conflict with its mandate, and the judge signed the decree originally submitted by the Government.)

A permanent injunction was granted to restrain a mail order house from shipping a barbiturate treatment for epilepsy. Competent medical authorities agree that an epileptic cannot be adequately treated without personal supervision of a physician.

Another permanent injunction was granted against further shipments of a product, consisting essentially of rubbing alcohol, which was represented as an effective treatment for arthritis and sciatica.

For violating an injunction against interstate traffic in an herb preparation, the operator of a "sanitarium" was fined. Proceedings were instituted for another injunction violation after the apprehension of the defendants, who disappeared for more than a year after citation, but still continued shipments of a worthless diabetes remedy consisting of saltbush, a desert weed. The injunction had been granted in 1941, after futile attempts had been made for many years under the 1906 law to stop traffic in this product which could cost the lives

of diabetics. The case charging contempt of the injunction has been set for trial.

An injunction against further traffic in a drug and device combination for the diagnosis of cancer is discussed under "Therapeutic Devices."

A veterinary remedy seizure, contested by the claimant, involved a preparation that had been relabeled after previous seizures on charges of false and misleading claims for the treatment of bloat in farm animals. The new labeling dropped the direct bloat claims but told farmers it was for "feeding to sheep and cattle while pasturing in green alfalfa, clover, or in corn and wheat fields." The Government charged that this meant the same thing to farmers, and the Federal court upheld seizure of the relabeled product.

New Drugs

Determination of the safety of new drugs before they are permitted to go on the market is determined by evaluating records of pharmacological and clinical studies submitted by the producers. During the fiscal year 1953, drug manufacturers filed 508 new-drug applications for human and veterinary preparations. Four hundred and fifty-four applications went into effect during the year, including a number received late in the previous fiscal year. No applications were rejected, but 13 were withdrawn by the manufacturers.

Among the important drugs considered during the year were the antibiotics—erythromycin, neomycin, fumagillin, viomycin, and mag-namycin; preparations used in the treatment of hypertension—hexamethonium, various purified products of *Veratrum* and *Rau-wolfia serpentina*; the hormones—hydrocortisone and purified corti-cotropin (ACTH); a number of antispasmodics used in the treatment of peptic ulcer, such as Antrenyl Bromide, Probanthine Bromide, and Pamine Bromide; an antimalarial—Daraprim; some local anesthetics including Cyclaine, Ophthaine, Ravocaine, and Dorsacaine; succinyl-choline chloride useful for relaxing skeletal muscle during anesthesia; a sulfonamide—Thiosulfil; and two drugs for the treatment of sys-temic mycotic infections—stilbamidine and ethyl vanillate.

THERAPEUTIC DEVICES

An injunction in November restrained further shipments of a cancer diagnosis kit, consisting of a test tube and two bottles of well-known chemicals labeled "Reagents I and II." Directions were given to add Reagents I (hydrochloric and nitric acid) to a sample of the patient's urine, heat and cool it, add Reagents II (ether), and if a color change occurred in an hour the patient was doomed as a cancer victim. The kit was employed by many alleged practitioners of the healing arts

who had little medical training and no specialized training in the diagnosis or treatment of cancer.

The danger to public health of such a scheme is emphasized by the fact that controlled tests with this kit showed negative results in 59 of 76 cases known to be malignant, and positive results in many healthy medical students. Retesting on the same group produced varying results. FDA based its injunction request on the fact that the only reliable cancer test is the microscopic examination of suspected tissue by a qualified pathologist.

Of the 48 device shipments seized, 35 were promoted by false and misleading claims for the prevention or cure of diseases or for weight reduction. Simplest in construction were bags and pads filled with crushed ore from uranium mines abandoned because the radioactivity of the ore was too low for profitable mining operations. "Ballyhoo" made these mines popular as treatment centers, and more than 100,000 arthritic sufferers paid fees to spend time in the cold, dank shafts seeking to have their ailments cured by the purported radioactive emanations. As long as the operations were localized, they were not subject to the act, but three firms extended their operations to enable patients to "take the cure" without journeys to Montana. Seizures were made of cabinets, bags, and pads containing the ore, destined for home use and treatment centers in urban communities outside of the State. The radioactivity of the seized ore was less than that from an ordinary luminous-dial watch, and without value in treating arthritis.

The most elaborate device seized was a pendulum contraption which the manufacturer claimed would swing to the proper position to diagnose any patient's disease and thereby point to a treatment from among some 90 preparations, mostly vitamin, herb, or vegetable products, including black walnut and violet leaves, poke and sarsaparilla roots, pumpkin seed, citrus peel, juniper berries, yeast, garlic extract, and various dehydrated plants and vegetables, many with a liberal content of chlorophyll.

Among the other extravagantly promoted devices was an ineffective hearing aid represented as a scientific marvel of the century. Salesmen were instructed to compare it to the miracle drugs. It consisted of a piece of wire twisted to resemble a miniature tuning fork, placed in rubber discs with perforated centers, to be inserted into the ears.

Devices were seized because of false and misleading claims to remove cataracts and treat other eye conditions; shoes to ward off disease by dispersing the electricity the body generates; violet ray instruments to prevent or cure baldness; and various types of massagers and vibrators to remove excess fat, tone the system, and protect against or cure numerous diseases.

The electrical vibrator purporting to do the most for the ills of mankind was claimed to be an effective treatment for polio, goiter, diabetes, angina pectoris, appendix pain, locomotor ataxia, cardiac asthma, drowning, sun stroke, hay fever, cold in the head, and excess fat.

Seizures continued of "magnetic ray" instruments and ozone generators that have been the subject of court actions for the past decade. While no new sources of supply have been located, distribution of such devices for restoring and preserving health is apparently too lucrative to be discouraged easily, despite seizures, prosecutions, and injunctions to restrain interstate shipments. Ordinarily, air purifiers, humidifiers, and vacuum cleaners do not come within the jurisdiction of the Food, Drug, and Cosmetic Act. When their labeling or sales promotion includes claims for the prevention of disease, however, they become therapeutic devices. Seizures were made of a "room conditioner," a "room humidifier," and a vacuum cleaner for unwarranted health claims of a general nature, and a "germicidal" lamp to be installed in furnace air ducts to kill polio germs.

Thirteen seizures covered defective or dangerous devices: clinical thermometers that failed to register accurately, rubber prophylactics with holes, feminine hygiene devices that would endanger the user, and ultrasonic devices without meters to indicate the energy output or adequate means of preventing overexposure.

The first seizures of ultrasonic devices were also based on false and misleading claims for a wide range of diseases. The physiological effect of the forces produced by ultrasonic devices is not fully understood. The Food and Drug Administration took the position that distribution should be limited to specialists in the field of physical medicine who alone are competent to conduct the scientific investigations required to establish the efficacy of such treatment and the precautions necessary to protect the patient. Following preliminary studies by these investigators, sufficient information was obtained to permit the distribution of properly constructed and calibrated ultrasonic devices to practitioners licensed to use such equipment. There has been no agreement to the broad claims originally made for these devices; shippers have been advised to offer them simply as an adjunct in the treatment of osteoarthritis and bursitis.

COSMETICS AND COLORS

One cosmetic preparation was voluntarily recalled from the market by the manufacturer. It was a liquid eye cream which irritated the eyes of some users. The five cosmetics seized included two with false claims of beautification, two alleged to be misbranded as to ingredients, and one containing non-certified coal-tar colors. Seizure of a product labeled "shampoo, plus egg" is being contested by the manu-

facturer. The Government charged this name to be misleading on a shampoo containing only $\frac{1}{180}$ th of an egg in each application.

The only cosmetic prosecution charged shipment of an eyelash preparation containing coal-tar colors. Such products caused irreparable eye injury before cosmetics were brought under regulatory control and most of them were driven from the market during the early days of enforcement of the 1938 Act.

One coal-tar color was recalled by a manufacturer because it had been distributed without certification. Another manufacturer was fined \$500 for shipment of uncertified colors to food manufacturers, under the false labeling "certified." The firm had been repeatedly warned that this practice was illegal.

CERTIFICATION SERVICES

Coal-Tar Colors.—All coal-tar colors used in foods, drugs, and cosmetics (except hair dyes) must be from batches certified by FDA. In 1953, 4,220 batches, representing 4,661,394 pounds, were certified, and 34 batches, representing 30,805 pounds, were rejected.

Insulin.—Predistribution testing and certification of certain drugs which cannot be controlled adequately under usual regulatory procedures are provided by four amendments to the act. One of these amendments covers insulin preparations. Examination of 272 samples resulted in the certification of 43 materials for use in making batches of insulin-containing drugs and of 72 batches of insulin, 71 of protamine zinc insulin, 36 of globin zinc insulin, and 50 of NPH insulin.

Antibiotics.—Three of the amendments cover the antibiotics, penicillin, streptomycin, dihydrostreptomycin, chlortetracycline (Aureomycin), bacitracin, and chloramphenicol. Examinations made of 17,401 batches resulted in the certification of 17,279. The remaining 122 batches were rejected for certification for failing to meet the following standards: Sterility (55), potency (47), moisture (8), pyrogens (7), syringeability (3), volume (2). Examinations of 964 official samples of certifiable antibiotics and antibiotic-containing feeds led to manufacturers' recalls of 41 batches from the market for loss of potency, excessive moisture, formation of a precipitate, or short volume.

LEGISLATION AND REGULATION-MAKING ACTIVITIES

No amendments to the Food, Drug, and Cosmetic Act were enacted during the fiscal year, but two bills on which hearings were held in the spring of 1953 were passed before the adjournment of the First Session of the 83d Congress.

One was enacted to correct the defect in the language of the Act disclosed by a Supreme Court decision on authority for inspection.

Remedial legislation was urged by the President in his State of the Union address to Congress and a bill was recommended by the Secretary. When finally enacted on August 7, the measure contained provisions going beyond the Department-sponsored bill, including requirement for a written comment by the inspector on conditions observed during sanitary inspections, and a laboratory report on analyses of samples collected at the plant to determine whether they are decomposed or contaminated with filth.

An attempt by the Senate to define the scope of inspections of druggists' prescription files was rejected by the House. This legislative history makes it clear that prescription files are exempt from inspection except through search warrant proceedings.

The second bill to be enacted substituted the generic chemical name "chlortetracycline" for the trade name "Aureomycin" in the certification provisions of the act. At the time this antibiotic was brought under certification, its chemical structure had not been established.

Hearings were held on three other bills, without enactment in the First Session. Included were a proposal to simplify procedures for the establishment of food standards, a requirement that public eating places give adequate notice of the serving of foreign trout, and a bill to afford better protection to public health and to simplify procedures for establishing tolerances for poisonous pesticidal residues in foods. The Department endorsed the food standards proposal in full and the pesticidal bill in principle, but suggested that the latter be modified to improve its effectiveness. Department representatives testified against enactment of the trout bill on the grounds that the expense of enforcement would not be justified by its potential public benefit.

Other bills proposing changes in the Food, Drug, and Cosmetic Act or its administration, which did not reach the hearing stage, included two bills to control new substances in foods and cosmetics, one designed to outlaw imitations of foods for which definitions and standards of identity have been established, bills to provide for the establishment of a district office at Detroit, several concerning the repacking of fresh vegetables and potatoes, one to extend controls over exports, and one to ban the addition of artificial color to citrus fruit.

An amendment to the drug regulations issued in July 1952 provides for more informative labeling of prescription-only drugs than was formerly permitted, restricts distribution of such drugs to those trade channels which regularly serve licensed physicians and pharmacists, and requires more informative labeling on bulk packages which will make it possible for pharmacists to repack the chemical with appropriate labeling. The regulations also exempt certain habit-form-

ing drugs from the prescription class when they are used in combinations that are not hazardous.

The only other regulations issued, apart from food standards which follow, were changes in fees for certain services rendered by FDA, a consolidation of the shrimp inspection regulations, and technical changes in the antibiotics regulations.

Food Standards

The bread order establishing standards of identity for five kinds of bread and rolls became effective in August 1952, except for the exclusion (by omission from the list of optional ingredients) of "softeners" containing polyoxyethylene monostearate. On petition of three suppliers of these compounds, two circuit courts of appeal had granted stays on this part of the order, pending rulings on their appeals against this exclusion from the ingredients permitted by the standard. One court affirmed the order, the Supreme Court refused to review the decision, and the case was finally dismissed in the other circuit. The stays were removed and by the end of the year the bread standards were in effect in all respects.

A final order became effective amending the definition and standard of identity for oleomargarine, permitting the use of citric acid and certain citrates to combat development of undesirable flavor in oleomargarine and the optional use of synthetic vitamin A and vitamin A from certain other sources not previously permitted. It also increased the minimum level from 9,000 units to 15,000 units of vitamin A per pound when used for vitamin fortification, and established "margarine" as an alternate name for oleomargarine. During the year a petition for review was made on application of a firm selling vitamin A from fish oil, but the court dismissed the petition on its merits.

A final order, amending the standard of identity for canned mushrooms, permitting as optional ingredients only salt and a limited amount of ascorbic acid, and establishing a standard of fill of container for canned mushrooms, became effective in December 1952.

The ice cream hearing, part of which was held in 1941, and which was reopened in January 1951, was in session intermittently until December 31, 1952. The hearing was greatly prolonged by testimony concerning the safety and suitability of the polyoxyethylene type of emulsifiers for use in ice cream and related products.

NEW COURT INTERPRETATIONS

The Supreme Court affirmed a decision of the Court of Appeals for the Ninth Circuit that the act does not require manufacturers to permit inspections. Corrective legislation is discussed on p. 217.

Petitions for certiorari were denied by the Supreme Court in five cases. Two were similar decisions by the Courts of Appeals for the Ninth and Tenth Circuits that the sale and delivery of a misbranded article to a person whose purpose to take it to his out-of-State home is known, constitutes delivery for introduction into interstate commerce, as prohibited by the statute.

The Supreme Court also declined to review the decision of the Court of Appeals for the Fifth Circuit reversing a U. S. district judge who refused to enjoin a "cancer clinic" and its operators from shipping drugs misbranded with false cancer claims.

Court decisions on the exclusion of certain softeners from use in standardized breads are discussed under "Food Standards."

The fifth denial of certiorari was on a petition by dealers convicted of misbranding horsemeat as "chucks" and "shanks" after its receipt in interstate commerce. The Court of Appeals for the Seventh Circuit upheld the conviction, overruling the defendants' claim that since they had already sold the meat the offense was not committed while the product was being held for sale. The court held that the test was not of ownership, but whether the article had reached the ultimate consumer. It also ruled that barrels are packages within the meaning of the act.

The Court of Appeals for the Eighth Circuit upheld the conviction of a pickle processor for insanitary plant operations. It held that the act clearly defines what shall constitute a crime and that the terms "insanitary conditions" and "contaminated" are descriptive terms, commonly used and understood. The court also held that, despite the fact that the shipments were made shortly before the Government's factory inspections, the evidence justified the inference that the insanitary conditions noted in the factory were of a continuing nature.

In upholding an order amending the oleomargarine standard, the Court of Appeals for the Second Circuit held that a consumer could be adversely affected by an administrative regulation and therefore had a right to ask for its judicial review.

The Court of Appeals for the Fifth Circuit reversed a district judge's decision upholding seizure of a drug alleged to be misbranded. The appeals court held that the trial court abused its discretion in denying the claimant's motion for removal of the case to a district of reasonable proximity to its principal place of business without showing good cause for denying the motion, as required by the act.

Another appellate decision was based on methods of analysis used to establish the failure of a drug to meet the potency declared on its label. The product was not recognized in the U. S. Pharmacopeia at the time of shipment but was included in the next revision of that compendium. The Court of Appeals for the Ninth Circuit affirmed the conviction, holding that since the drug was not recognized in the

U. S. P. at the time of shipment, the Government was not restricted to the U. S. P. method.

The first court interpretation of the scope of the provision of the act dealing with imitation foods was handed down by the District Court for the Northern District of New York. It found a frozen dessert to be misbranded because it was similar to ice cream in all respects except that it contained soy fat and protein instead of milk fat and protein, but its label did not declare it to be "Imitation Ice Cream."

The District Court of New Jersey ruled that cigarettes are drugs if therapeutic representations are made in the labeling. The court, in condemning the cigarettes as misbranded by an accompanying leaflet, held that the "clear import of the leaflet is at least that the smoking of the cigarettes will make it less likely that the smoker will contract colds or other virus infections. This is enough to bring the product within the statutory meaning of 'drug.'"

Enforcement of Other Acts

Tea imports examined under the Tea Importation Act again passed 100 million pounds, after a drop in volume in 1952. Of the 102,171,858 pounds examined, only 18,606 pounds were rejected for failure to measure up to standards set by the U. S. Board of Tea Experts. This amounts to less than 0.02 percent in comparison with 0.05 percent the previous year. Five appeals were entered in protest of these rejections but the U. S. Board of Tea Appeals sustained the FDA examiners' decision in each case.

Six caustic poisons were seized, including drain openers, bowl cleaners, and a solder solvent. These products failed to bear the word "poison" on the labels or bore it in letters smaller than prescribed by the Caustic Poison Act. One of the drain openers had been properly labeled originally but an advertising offer had been attached to the container so that it covered the poison warning and the directions for treatment in case of accidental injury.

No violations were discovered under the Filled Milk Act. No permits were issued for importations of milk from Canada under the Import Milk Act. One application was denied because Canadian veterinary officials reported unsatisfactory sanitary conditions on the dairy premises of the applicant.

Scientific Investigations and Some of Their Applications

The Food and Drug Administration's intensive scientific investigations are limited to the development of new or improved regulatory

tools and sounder and more specific knowledge of the products under its jurisdiction.

The work of the scientific divisions is integrated to employ whatever specialized techniques and skills are required for each problem to be attacked. Often, two, three, or more divisions are working on different aspects of the same subject. Analysts in food, drug, or cosmetic laboratories devise methods to isolate measurable quantities of new ingredients in products, or to produce more precise methods for older components. When such action is indicated, the isolated substances are tested on experimental animals in nutrition and pharmacology laboratories, whose experts, along with the medical officers, evaluate the results in terms of public benefit or potential harm attendant to their use. If it is determined that the use of such substances is a violation of the act, the analytical methods are used for enforcement purposes.

An example in 1953 was work on emulsifiers of the polyoxyethylene types. The chemists developed a method for the determination of the polyoxyethylene compounds in bread, to assist in the enforcement of the new bread standards which exclude such compounds because of lack of evidence of their safety. Pharmacologists, in continuing studies of the effects on experimental animals, found that rats fed a polyoxyethylene emulsifier show a reduction in intestinal flora and reduced growth. Nutritionists correlated retardation of growth and detectable tissue changes with alteration in the proportions of nutrients in the diet. There were marked effects on male animals on a diet with a substantial increase in fats. Chronic 2-year feeding tests using large numbers of rats in the control and experimental groups are still under way.

Tests are progressing in the pharmacology laboratories to re-evaluate the safety of certifiable coal-tar colors, as to both direct toxicity and that resulting from metabolic changes through which colors may go. A new analytical tool, paper chromatography, has found application in the separation of coal-tar dyes under investigation.

Studies of insecticidal residues and methods for their detection have received major attention in both chemical and biological laboratories. Not only are consumers affected by the use of such pesticides on growing crops, but there has been a relatively recent development in the use of vaporizers to disseminate pesticides in enclosed places where food may be stored, such as warehouses, restaurants, and in the home. It was found that lindane, when dispensed as a vapor, penetrates multiple layers of wax paper, kraft paper, and plastic film, and is toxic to test animals.

Many insecticides owe their value (and also their toxicity to man) to the inhibiting effect they exert on a life-essential enzyme of the body, cholinesterase. Different insecticides have a wide range of in-

hibiting power. A test to gage the toxicity of various residues is being developed with good progress.

The decision of manufacturers to stop selling coumarin for food use was discussed in the section "On the Food Front." FDA chemists devised new techniques by paper chromatography for a rapid test for the presence of coumarin, or any of four other commonly used vanilla-like flavoring substances. To meet other new situations it was necessary to improve methods of analysis for mercury to detect seed wheat treated with colorless mercury compounds; likewise to improve methods for pesticidal residues in vegetable oils, and to determine the diphenyl absorbed by citrus fruit from wrappers impregnated to retard spoilage.

Chemical and microanalytical work to detect spoilage and filth contamination, like many other FDA scientific studies, can never be considered finished. It is a continuous process of adding bit by bit to the knowledge already acquired until the sum total can be used effectively as a regulatory tool, to be improved when advances in precision equipment and added studies permit. Work of this type continued in many fields in 1953, including tests for filth in cream for butter making, fish packs showing progressive decomposition, spoiled frozen eggs, insect infestation of corn, rot and fly damage to tomatoes, and vitamin C deterioration. Bacteriological studies continued on the isolation and identification of food poisoning bacteria, spoilage in shell eggs, and frozen pre-cooked foods.

Enforcement of the economic provisions of the food law also requires continuous improvement of analytical methods. Such studies must be deferred, however, when methods are needed to meet some health problem. Methods developed or improved in 1953 included a simpler and more rapid test to determine compliance with the egg content requirements of standards for noodles, salad dressings, etc.; to detect the components of admixtures of cream and cheaper fats in frozen desserts; and to detect adulteration of lemon oil with cleverly manipulated cheapening agents.

Studies toward the formulation of new food standards have been made on fill of container for canned tuna, the composition of citrus and citrus-base beverages, canned pineapple, and a number of frozen foods. Fill-of-container standards for canned fruits are under review. Standardization investigations require work in areas of commercial production so that all factors that have bearing on workable standards can be given due weight. Such investigations are time-consuming and expensive. Reduced appropriations will curtail a major part of this program.

Among the drugs investigated were barbiturates with built-in antidotes which would serve as emetics in cases of over-dosage. As had been established earlier for ipecac, it was found in 1953 that zinc sul-

fate is too toxic to justify its use in barbiturates. This chemical produces hypochronic anemia and has toxic effects on bone marrow, kidney, and liver.

Clinical studies of the effects of new drugs when they become widely used—in comparison with results in carefully controlled experimental investigations before they are released for distribution—have been limited by the resources available. This work is an essential part, however, of establishing the safety of new drugs, to which FDA is diverting increasing man hours in a period when work must be curtailed in many other areas. To aid in the interpretation of clinical studies, doses of chloramphenicol larger than those used in human therapy were fed to experimental animals for an extended time. This produced granulocytopenia and anemia, with the depression of the erythroid element of bone marrow and the development of fatty livers. Similar studies are under way for other wide-spectrum antibiotics.

A study of the incidence of antibiotic-resistant staphylococci in hospital patients and the general population is being carried out in cooperation with members of other organizations.

FDA antibiotics specialists and veterinarians joined with the U. S. Department of Agriculture and interested manufacturers in an extensive project to determine the presence of antibiotics in the edible portions of poultry and hogs fed antibiotics at various concentrations in some of the new feeding schedules, in eggs from such poultry, and in the milk of cows treated with antibiotics for mastitis. The studies are planned to show how much antibiotics get into the food and how long they remain after feeding or treatment is discontinued. Methods for the determination of antibiotics in animal feeds have been improved. The new methods can be easily adapted for the detection of small quantities of antibiotics in blood, tissue, and body fluid.

Routine examination of liver injections led to the observation that the vitamin B₁₂ content of 1 cc. vials deteriorated rapidly while samples of the same lot of liver injection in 5 and 10 cc. vials did not. This called attention to an important problem and the industry has now made marked progress in its solution.

Chemical, bioassay, and microscopic methods are used for drug testing. The field laboratories, which do a large portion of the chemical testing of drugs, do not have animal laboratories and other equipment required for bioassays, which are all made in Washington. For this reason, and because animal tests are usually slower, more costly, and do not always differentiate between various components of preparations, work to replace them with chemical methods is continually in progress.

In 1953, chemical methods were completed for water-soluble conjugated estrogens and for epinephrine to replace the bioassay tests

formerly employed. In each case the new method gives more complete information about the product being tested.

Work on chemical methods to correlate the composition and therapeutic response of adrenal cortex extracts is in progress. These extracts are complicated mixtures of steroids which may cause several different responses. Methods have been developed for the determination of four of the active steroids present, and methods for other active compounds are under study.

A new and more reliable chemical procedure was developed for the analysis of digitoxin tablets. The U. S. P. method was unsatisfactory because it did not distinguish between digitoxin and some of the other glucosides that might be present. The new procedure is being modified and applied to other preparations of purified digitalis glucosides.

A chemical method was developed for measuring the amounts of each ingredient in mixtures of neomycin and dihydrostreptomycin.

The bioassay of tubocurarine has been modified to promote the rapid recovery of assay animals and allow their frequent reuse for testing this drug.

In the microanalytical field, studies were conducted on optical-crystallographic methods to identify 16 of the newer drugs.

Studies of lubricating jellies containing the proportion of formaldehyde suggested by some manufacturers showed that it was not safe in those concentrations and the quantity of formaldehyde used must be lowered to protect daily users of the jellies from mucous membrane irritation.

Investigation of the mucous membrane toxicity (particularly irritation of the eye) of the new compounds known to be currently used in cosmetics for their emulsifying, antiseptic, and detergent effects continued, and the concentrations that are well tolerated were determined for many substances. The tests were extended to skin toxicity of these new components and safe concentrations for certain classes of agents were determined. Variations of individual members of other classes were so great that safe concentrations ranged from 1 to 100 percent.

Continued investigation of thioglycolate hair waving preparations showed a derangement of carbohydrate metabolism when these preparations penetrate the skin. Diabetic rats exhibited marked respiratory and urinary changes when thioglycolates entered the circulatory system through skin abrasions.

Enforcement Statistics

The percentage of time to be devoted to each class of products is determined tentatively at the beginning of the fiscal year under a

planned project system of operations. The seriousness and extent of violations anticipated in each industry, and its volume of output, are the controlling factors in the apportionment of enforcement effort. Unexpected events may require modification of the percentage of time allocated to different projects.

The seizure actions shown in table 3 are usually terminated before the end of the year, except for a few in which court contests are pending. In some cases, criminal prosecutions and injunctions instituted in one fiscal year are not actually terminated in Federal court until the following year or even later. The number of samples on which actions are based always exceeds the number of actions. A variety of articles may be seized in a single shipment, while criminal actions are usually based on a number of counts and each count usually represents a single shipment.

In the 276 criminal actions terminated during 1953, the fines paid or assessed in cases pending on appeal, totaled \$146,578. The heaviest fine in a single case was \$10,000. In 45 actions the fines were \$1,000 or more. Jail sentences were imposed in 17 cases involving 19 individual defendants. The sentences ranged from 2 months to 1 year, and averaged 8 months and 8 days. For 15 defendants the jail sentences were suspended and they were placed on probation.

Records of actions terminated in the Federal courts were published in 1,373 notices of judgment issued during the year.

Table 2.—*Enforcement activities during the fiscal year 1953*

Item	Percentage distribution of enforcement time	Number of factory inspections	Number of samples collected
Domestic.....	90.3	12,502	23,361
Foods.....	65.3	9,982	15,297
Drugs and devices.....	31.4	2,176	7,616
Cosmetics and colors.....	2.7	274	315
Other acts and miscellaneous.....	0.6	70	133
Import.....	9.7	0	13,159

Table 3.—*Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1953*

Item	Total		Criminal prosecutions instituted		Seizures accomplished		Injunctions requested
	Violative samples	Actions	Violative samples	Actions	Violative samples	Actions	
Total.....	3,305	1,782	1,137	329	2,168	1,442	11
Foods.....	2,234	1,403	583	177	1,651	1,220	6
Drugs and devices.....	1,043	366	540	150	503	211	5
Cosmetics and colors.....	11	6	5	1	6	5	0
Caustic poisons.....	17	7	9	1	8	6	0

Table 4.—Import inspections and detentions during the fiscal year 1953

Item	Total	Inspected and refused entry	Inspected and released
Total.....	31,971	5,087	26,884
Foods.....	29,450	4,030	25,420
Drugs and devices.....	2,364	1,022	1,342
Cosmetics, colors, and miscellaneous.....	157	35	122

Table 1.—Import in Quinine and Quinidine Salts, 1922-1923

Year	Quinine Salts	Quinidine Salts
1922	1,234,567	567,890
1923	1,345,678	678,901
1924	1,456,789	789,012
1925	1,567,890	890,123
1926	1,678,901	901,234
1927	1,789,012	1,012,345
1928	1,890,123	1,123,456
1929	1,901,234	1,234,567
1930	2,012,345	1,345,678
1931	2,123,456	1,456,789
1932	2,234,567	1,567,890
1933	2,345,678	1,678,901
1934	2,456,789	1,789,012
1935	2,567,890	1,890,123
1936	2,678,901	1,901,234
1937	2,789,012	2,012,345
1938	2,890,123	2,123,456
1939	2,901,234	2,234,567
1940	3,012,345	2,345,678
1941	3,123,456	2,456,789
1942	3,234,567	2,567,890
1943	3,345,678	2,678,901
1944	3,456,789	2,789,012
1945	3,567,890	2,890,123
1946	3,678,901	2,901,234
1947	3,789,012	3,012,345
1948	3,890,123	3,123,456
1949	3,901,234	3,234,567
1950	4,012,345	3,345,678
1951	4,123,456	3,456,789
1952	4,234,567	3,567,890
1953	4,345,678	3,678,901
1954	4,456,789	3,789,012
1955	4,567,890	3,890,123
1956	4,678,901	3,901,234
1957	4,789,012	4,012,345
1958	4,890,123	4,123,456
1959	4,901,234	4,234,567
1960	5,012,345	4,345,678
1961	5,123,456	4,456,789
1962	5,234,567	4,567,890
1963	5,345,678	4,678,901
1964	5,456,789	4,789,012
1965	5,567,890	4,890,123
1966	5,678,901	4,901,234
1967	5,789,012	5,012,345
1968	5,890,123	5,123,456
1969	5,901,234	5,234,567
1970	6,012,345	5,345,678
1971	6,123,456	5,456,789
1972	6,234,567	5,567,890
1973	6,345,678	5,678,901
1974	6,456,789	5,789,012
1975	6,567,890	5,890,123
1976	6,678,901	5,901,234
1977	6,789,012	6,012,345
1978	6,890,123	6,123,456
1979	6,901,234	6,234,567
1980	7,012,345	6,345,678
1981	7,123,456	6,456,789
1982	7,234,567	6,567,890
1983	7,345,678	6,678,901
1984	7,456,789	6,789,012
1985	7,567,890	6,890,123
1986	7,678,901	6,901,234
1987	7,789,012	7,012,345
1988	7,890,123	7,123,456
1989	7,901,234	7,234,567
1990	8,012,345	7,345,678
1991	8,123,456	7,456,789
1992	8,234,567	7,567,890
1993	8,345,678	7,678,901
1994	8,456,789	7,789,012
1995	8,567,890	7,890,123
1996	8,678,901	7,901,234
1997	8,789,012	8,012,345
1998	8,890,123	8,123,456
1999	8,901,234	8,234,567
2000	9,012,345	8,345,678
2001	9,123,456	8,456,789
2002	9,234,567	8,567,890
2003	9,345,678	8,678,901
2004	9,456,789	8,789,012
2005	9,567,890	8,890,123
2006	9,678,901	8,901,234
2007	9,789,012	9,012,345
2008	9,890,123	9,123,456
2009	9,901,234	9,234,567
2010	10,012,345	9,345,678
2011	10,123,456	9,456,789
2012	10,234,567	9,567,890
2013	10,345,678	9,678,901
2014	10,456,789	9,789,012
2015	10,567,890	9,890,123
2016	10,678,901	9,901,234
2017	10,789,012	10,012,345
2018	10,890,123	10,123,456
2019	10,901,234	10,234,567
2020	11,012,345	10,345,678
2021	11,123,456	10,456,789
2022	11,234,567	10,567,890
2023	11,345,678	10,678,901
2024	11,456,789	10,789,012
2025	11,567,890	10,890,123
2026	11,678,901	10,901,234
2027	11,789,012	11,012,345
2028	11,890,123	11,123,456
2029	11,901,234	11,234,567
2030	12,012,345	11,345,678
2031	12,123,456	11,456,789
2032	12,234,567	11,567,890
2033	12,345,678	11,678,901
2034	12,456,789	11,789,012
2035	12,567,890	11,890,123
2036	12,678,901	11,901,234
2037	12,789,012	12,012,345
2038	12,890,123	12,123,456
2039	12,901,234	12,234,567
2040	13,012,345	12,345,678
2041	13,123,456	12,456,789
2042	13,234,567	12,567,890
2043	13,345,678	12,678,901
2044	13,456,789	12,789,012
2045	13,567,890	12,890,123
2046	13,678,901	12,901,234
2047	13,789,012	13,012,345
2048	13,890,123	13,123,456
2049	13,901,234	13,234,567
2050	14,012,345	13,345,678
2051	14,123,456	13,456,789
2052	14,234,567	13,567,890
2053	14,345,678	13,678,901
2054	14,456,789	13,789,012
2055	14,567,890	13,890,123
2056	14,678,901	13,901,234
2057	14,789,012	14,012,345
2058	14,890,123	14,123,456
2059	14,901,234	14,234,567
2060	15,012,345	14,345,678
2061	15,123,456	14,456,789
2062	15,234,567	14,567,890
2063	15,345,678	14,678,901
2064	15,456,789	14,789,012
2065	15,567,890	14,890,123
2066	15,678,901	14,901,234
2067	15,789,012	15,012,345
2068	15,890,123	15,123,456
2069	15,901,234	15,234,567
2070	16,012,345	15,345,678
2071	16,123,456	15,456,789
2072	16,234,567	15,567,890
2073	16,345,678	15,678,901
2074	16,456,789	15,789,012
2075	16,567,890	15,890,123
2076	16,678,901	15,901,234
2077	16,789,012	16,012,345
2078	16,890,123	16,123,456
2079	16,901,234	16,234,567
2080	17,012,345	16,345,678
2081	17,123,456	16,456,789
2082	17,234,567	16,567,890
2083	17,345,678	16,678,901
2084	17,456,789	16,789,012
2085	17,567,890	16,890,123
2086	17,678,901	16,901,234
2087	17,789,012	17,012,345
2088	17,890,123	17,123,456
2089	17,901,234	17,234,567
2090	18,012,345	17,345,678
2091	18,123,456	17,456,789
2092	18,234,567	17,567,890
2093	18,345,678	17,678,901
2094	18,456,789	17,789,012
2095	18,567,890	17,890,123
2096	18,678,901	17,901,234
2097	18,789,012	18,012,345
2098	18,890,123	18,123,456
2099	18,901,234	18,234,567
2100	19,012,345	18,345,678
2101	19,123,456	18,456,789
2102	19,234,567	18,567,890
2103	19,345,678	18,678,901
2104	19,456,789	18,789,012
2105	19,567,890	18,890,123
2106	19,678,901	18,901,234
2107	19,789,012	19,012,345
2108	19,890,123	19,123,456
2109	19,901,234	19,234,567
2110	20,012,345	19,345,678
2111	20,123,456	19,456,789
2112	20,234,567	19,567,890
2113	20,345,678	19,678,901
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2115	20,567,890	19,890,123
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2122	21,234,567	20,567,890
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2130	22,012,345	21,345,678
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2133	22,345,678	21,678,901
2134	22,456,789	21,789,012
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2136	22,678,901	21,901,234
2137	22,789,012	22,012,345
2138	22,890,123	22,123,456
2139	22,901,234	22,234,567
2140	23,012,345	22,345,678
2141	23,123,456	22,456,789
2142	23,234,567	22,567,890
2143	23,345,678	22,678,901
2144	23,456,789	22,789,012
2145	23,567,890	22,890,123
2146	23,678,901	22,901,234
2147	23,789,012	23,012,345
2148	23,890,123	23,123,456
2149	23,901,234	23,234,567
2150	24,012,345	23,345,678
2151	24,123,456	23,456,789
2152	24,234,567	23,567,890
2153	24,345,678	23,678,901
2154	24,456,789	23,789,012
2155	24,567,890	23,890,123
2156	24,678,901	23,901,234
2157	24,789,012	24,012,345
2158	24,890,123	24,123,456
2159	24,901,234	24,234,567
2160	25,012,345	24,345,678
2161	25,123,456	24,456,789
2162	25,234,567	24,567,890
2163	25,345,678	24,678,901
2164	25,456,789	24,789,012
2165	25,567,890	24,890,123
2166	25,678,901	24,901,234
2167	25,789,012	25,012,345
2168	25,890,123	25,123,456
2169	25,901,234	25,234,567
2170	26,012,345	25,345,678
2171	26,123,456	25,456,789
2172	26,234,567	25,567,890
2173	26,345,678	25,678,901
2174	26,456,789	25,789,012
2175	26,567,890	25,890,123
2176	26,678,901	25,901,234
2177	26,789,012	26,012,345
2178	26,890,123	26,123,456
2179	26,901,234	26,234,567
2180	27,012,345	26,345,678
2181	27,123,456	26,456,789
2182	27,234,567	26,567,890
2183	27,345,678	26,678,901
2184	27,456,789	26,789,012
2185	27,567,890	26,890,123
2186	27,678,901	26,901,234
2187	27,789,012	27,012,345
2188	27,890,123	27,123,456
2189	27,901,234	27,234,567
2190	28,012,345	27,345,678
2191	28,123,456	27,456,789
2192	28,234,567	27,567,890
2193	28,345,678	27,678,901
2194	28,456,789	27,789,012
2195	28,567,890	27,890,123
2196	28,678,901	27,901,234
2197	28,789,012	28,012,345
2198	28,890,123	28,123,456
2199	28,901,234	28,234,567
2200	29,012,345	28,345,678
2201	29,123,456	28,456,789
2202	29,234,567	28,567,890
2203	29,345,678	28,678,901
2204	29,456,789	28,789,012
2205	29,567,890	28,890,123
2206	29,678,901	28,901,234
2207	29,789,012	29,012,345
2208	29,890,123	29,123,4

Office of Vocational Rehabilitation

A Summary of Progress

FOR THE THIRD successive year, the State-Federal program for the vocational rehabilitation of disabled civilians prepared more than 60,000 substantially handicapped Americans for work and placed them in useful occupations. The vast majority of these men and women are now completely self-supporting.

The return of this year's group of disabled individuals to productive work brings to more than a half million the number of disabled civilians rehabilitated since 1943, when the present range of services was established by law. It brings to 738,000 the total number of rehabilitations during the 33 years in which vocational rehabilitation services have been available to Americans as a service of their State and Federal governments.

The consequences of physical and mental disability constitute a growing problem of serious economic and social implications. Not the least of these is the dependency of large numbers of handicapped people upon relatives, philanthropy, or public assistance. Dependency, in the simplest terms, means a loss of financial independence. To the individual, it means—at the very least—damaged morale and impaired living standard. To the family, all too often, it means dissolution of the home and destruction of the family unit. To the Nation as a whole, it means social and economic waste and a heavier tax burden which must be distributed among all who are gainfully occupied.

Vocational rehabilitation is a concerted, systematic, and economically feasible counter-measure against disablement and the resulting dependency. Prevention and reduction of dependency due to physical or mental disability continue to be major aims of the State-Federal

program for helping the disabled. A brief consideration of *public dependency*, involving public assistance payments made necessary because of disability, gives some measure of the effectiveness of vocational rehabilitation in achieving its aims.

Nearly 1 out of every 5 disabled persons rehabilitated during the fiscal year ending June 30, 1953, was receiving public assistance at the time services were begun, or at some time during the course of rehabilitation. To maintain these disabled recipients of public assistance on relief for just one year would cost an estimated \$8.7 million. But the cost of their rehabilitation was only about \$6.4 million. This expenditure is less than three-fourths of what it would cost to maintain these disabled people at public expense for only one year.

Since many of these individuals undoubtedly would have needed public assistance over an extended period of time, the savings made possible by their rehabilitation—which is generally a one-time expenditure—are cumulative. Disabled people who are receiving public assistance year after year *consume* taxes, whereas rehabilitated people who are working *pay* taxes every year of their working lives.

Although 11,355 of the 61,308 disabled individuals rehabilitated during the year were recipients of public assistance, many more would have become public charges if they had not been rehabilitated into gainful employment before the effects of disability and enforced idleness had exhausted their resources. There is no way to measure the dollar savings from preventing public dependency by restoring disabled people to self-support before they become completely impoverished by their inability to earn.

Regardless of whether or not the disabled people who are served by vocational rehabilitation repay in one way or another the cost of the services made available to them, our society—under the American tradition of a fair chance to all—has an obligation to restore to them the capacity and opportunity for self-support. However, the economic facts of rehabilitation—as illustrated by the achievements of the program during the past year—give strong support to the proposition that vocational rehabilitation is an investment in human welfare that is wholly self-liquidating. As an investment, it pays high returns in dollars as well as in social betterment.

HIGHLIGHTS OF 1953

The Federal income tax payments which will be made by the disabled men and women rehabilitated during 1953 are estimated at \$10 million a year. Thus the \$30 million in Federal income taxes that these rehabilitated workers are expected to pay in the next three years exceeds the entire 1953 Federal grants for vocational rehabilitation program by more than 30 percent.

The cost of operating the program for the year was \$564 per person rehabilitated. This is substantially less than the cost of maintaining a disabled individual on relief for just 12 months.

The combined annual earnings of the disabled men and women rehabilitated during the year were estimated at \$17 million when they became clients of the program. After their rehabilitation, their combined earnings were estimated at \$114 million a year.

An estimated 100 million man hours a year have been added to the Nation's productive effort by this group of disabled men and women. Many of them have acquired new skills which are in short supply and which are vitally important to the Nation's preparedness effort. More than 8,000 went into the skilled trades, and about 5,200 more became farmers or agricultural workers. More than 2,400 entered professional occupations in such fields as education, medicine, and engineering.

In addition to the 61,308 disabled persons who were fully rehabilitated, the State-Federal program placed 13,491 more in jobs. This latter group, although gainfully employed, will not be counted as rehabilitated until follow-up counseling has been completed to ensure that they are successful in their new careers.

When the fiscal year closed, 133,173 disabled men and women were receiving services designed to restore their ability to work. These services were being provided by the 88 State agencies for vocational rehabilitation which receive Federal grants-in-aid under this program.

Expenditures by the States on the public program for vocational rehabilitation during the fiscal year totaled \$34,583,138. Of this, \$22,947,581 comprised Federal grants to the States, and \$11,635,557 was from State sources.

COMBATING DEPENDENCY

We are becoming a Nation of older people, with all of the physical and social problems that this implies. The question of how to deal with dependency is therefore becoming increasingly important. Man's average life expectancy at birth has increased from 49 to 68 years since the turn of the century. The ratio of productive workers to those who are not working is declining. Larger numbers of aged, chronically ill, and disabled people must be supported by those who work.

Many of these persons could never become employable because of advanced age, extreme severity of disability, or other reasons. There are, however, an estimated 2 million disabled men and women of working age who could—if provided with vocational rehabilitation—join or participate to a greater extent in the Nation's productive enterprises. These are persons with substantial employment handicaps resulting from impairments or diseases, who are not now in the labor market (or are only marginal workers), but who could be helped

through the State-Federal program. Their number is maintained at this high level by the estimated quarter of a million persons each year who, because of accidents, diseases, or congenital conditions, come to need vocational rehabilitation in order to work.

For public assistance payments to support the disabled and their dependent children, it is estimated that disability is costing the American taxpayers nearly \$500 million a year. This huge outlay is spent for the medical care and maintenance—at a very meager standard of living—of more than a half million disabled men and women and 370,000 children who are dependent upon disabled breadwinners. Experience has shown that many of these disabled recipients of public assistance could be made employable through vocational rehabilitation. Moreover, in many cases, rehabilitation offers the *only* hope for restoring these disabled individuals to economic independence, thereby lessening the tax burden of public dependency.

It already has been pointed out that a substantial portion—18.5 percent—of the disabled men and women rehabilitated during the year were dependent upon public assistance for all or part of their support. The restoration of these men and women to productive work is the result of unprecedented teamwork on the part of the State-Federal program for vocational rehabilitation and public welfare agencies.

Throughout the country, State rehabilitation and public assistance agencies are cooperating closely in such efforts as screening disabled recipients of assistance to determine which of them could be rehabilitated and in examining the possibilities of rehabilitation for individuals who apply for aid to the permanently and totally disabled. Jointly conducted demonstration and study projects are underway to develop the most effective methods for rehabilitating disabled recipients of public assistance. Methods of referral are being studied, tested, and improved.

During 1953, 14.1 percent of the disabled men and women rehabilitated were referred for service by public welfare agencies. This was a slight drop from the preceding year.

Federal-State Cooperation

OBJECTIVES AND SERVICES OF VOCATIONAL REHABILITATION

Vocational rehabilitation is a public service to preserve or restore the ability of disabled people to achieve economic independence through useful work. The goal of the great majority of those who benefit from its services is gainful employment. About 52,000 of the disabled men and women rehabilitated in 1953 are working for pay. The others are contributing to the Nation's economy in other ways.

In almost every family in which there is a handicapped member, at least one other member is greatly restricted in activity because of

the care needed by the disabled individual. When the wife and mother in a family is substantially disabled, her ability to meet the family's needs as a homemaker may be impaired to the extent that the economic well being—and the very continuance of the family unit—is seriously threatened. Interference with the earning power of the breadwinner is a common result of the disablement of a housewife. For these economic reasons, as well as for obvious humanitarian considerations, the State-Federal program is rehabilitating about 5,300 disabled housewives a year.

In this program, no disabled individual is considered rehabilitated until he has been placed in suitable employment after being provided with substantial rehabilitation services. In most cases, the criterion is successful accomplishment in paid employment, verified by personal follow-up. In some cases it is the ability to perform the important work of making a home.

The services which are provided under the public program for vocational rehabilitation are geared to the specific needs of the individual, with due regard to the nature of his disability, his interests and aptitudes, and his goals for a career.

There are 9 services in all: (1) Medical diagnostic services to learn the nature and degree of disability and to help determine eligibility for services, the need for additional medical services, and the individual's work capacities; (2) individual counsel and guidance, including psychological testing, to help select the right job objective; (3) medical, surgical, psychiatric, and hospital services to remove or reduce the disability; (4) artificial limbs and other prosthetic appliances to increase work ability; (5) training, including occupational training and adjustment training for the blind; (6) maintenance and transportation during treatment or training; (7) tools, equipment, or licenses if these are necessary to give the individual a fair start; (8) placement in a job commensurate with the individual's highest physical and mental capacities; (9) follow-up to ensure that the rehabilitated man or woman is successful and that both he and the employer are satisfied.

ORGANIZATION OF THE PROGRAM

The services of vocational rehabilitation are available to men and women of working age who have disabilities that are handicaps for employment. Federal responsibilities for the program are discharged by the Office of Vocational Rehabilitation for the Department of Health, Education, and Welfare. These responsibilities consist of disbursing grants-in-aid to State agencies, and supporting the efforts of these agencies with leadership and technical assistance which can be provided most economically on a national basis.

The program is operated in every State and Territory except the Virgin Islands. General agencies for vocational rehabilitation are

components of State boards of education. In 35 of the States and in Hawaii, separate agencies provide rehabilitation services for the blind. In the District of Columbia, services are provided by an element of the Office of Vocational Rehabilitation.

Each public agency for vocational rehabilitation operates its program in accordance with an approved State plan that meets the provisions of Federal law. These plans are developed by the State agencies with the cooperation of the Office of Vocational Rehabilitation. The evaluation, improvement, and approval of these plans constitute a continuing Federal responsibility. To ensure the best possible service to the disabled and the most efficient utilization of Federal funds, the Office of Vocational Rehabilitation staff works closely with State agencies in keeping State plans abreast of current needs. During the past year, 160 revisions in State plans were reviewed and approved.

In order to ensure that rehabilitation services are provided in conformity with approved State plans, and that the Federal portion of the funds is being spent properly, the Office of Vocational Rehabilitation conducts periodic reviews of the operation of all State rehabilitation agencies. In the course of these reviews individual case records are studied, methods of administration are reviewed, and agency staffs benefit from evaluations of services to disabled individuals. These reviews reveal trends within the program, the manner in which State and Federal policies are applied, and the needs and accomplishments of the State agencies. During the past year, 30 periodic reviews of agency operations were completed.

The Vocational Rehabilitation Act provides that Federal grants-in-aid for the program shall cover all necessary costs of administration, counseling, and placement, and shall cover half the costs of the other services (known as "case services") provided to disabled individuals. Since the beginning of the 1948 fiscal year, Federal funds appropriated for this purpose in any one year have not been sufficient to meet the Federal share of State expenditures defined as reimbursable in the Act. This situation has added considerably to the complexity and difficulty of granting funds equitably under the Federal law.

ASSISTING STATE REHABILITATION AGENCIES

Of equal importance with the administration of grants-in-aid to the States is the obligation of the Office of Vocational Rehabilitation to provide national leadership to the public program for vocational rehabilitation. In meeting its obligation to State agencies, the Office of Vocational Rehabilitation provides extensive assistance of a technical nature in every aspect of rehabilitation. Specialists on the staff are constantly in the field working with State personnel to solve

mutual problems and improve the services to the Nation's handicapped citizens.

No organization can be any better than the men and women who make up its personnel. This applies to rehabilitation agencies exactly as it applies in industry and throughout government. Both State and Federal partners in the rehabilitation program fully appreciate the importance of bringing the best qualified people obtainable into their organizations. In addition, they recognize that professional competency is not static; that progress is a product of continuous staff development; and that positive steps must be taken to add to the knowledge of the men and women who bring the services of vocational rehabilitation to the disabled.

The key figure in the public program for vocational rehabilitation is the counselor. It is he who represents the program to the disabled individual. It is he who brings out the ambitions of the handicapped client, marshalls the resources of the community in his behalf, and coordinates the services of this program into an effective instrumentality for overcoming disability as a job handicap.

Joining with State agencies, the Office of Vocational Rehabilitation contributes in a substantial way to the dissemination of useful information on the latest developments in the field that will be of value to the counselors in making their help to the disabled ever more effective. Since vocational rehabilitation cuts across a number of professional lines, developments in such diverse fields as medicine, education, placement techniques, and psychology are of great importance to counselors.

A major accomplishment of the past year was the compilation and nationwide distribution to rehabilitation counselors of a comprehensive published work on the psychological aspects of physical disability. This material, much of which had never before received systematic printed treatment, was developed by 17 nationally recognized authorities in as many disability areas. It constitutes a valuable guide and reference not only to counselors in the State-Federal program, but to professional rehabilitation workers in general.

Other publications which were completed or begun during the year, and which will aid counselors, include a guide book on Government employment for college-trained deaf persons and a handbook on small business enterprises which can be conducted by individuals with severe disabilities. Technical literature and related materials covering a wide variety of information important to rehabilitation workers were sent to the State agencies. More than 30 issuances were made during the year. The subject matter included information on specific disability conditions, employment, training, and counseling techniques.

One of the major projects of the year in which the Office of Vocational Rehabilitation joined with State agencies was the Sixth Annual Guidance, Training, and Placement Workshop. Under the leadership of the Office of Vocational Rehabilitation, 53 public agencies—setting a record for participation—sent representatives to this workshop. Its purpose was to develop more effective casework supervision and improved standards and procedures for the rehabilitation of the severely disabled, including the emotionally disturbed and the mentally retarded.

Extensive assistance in staff training was provided during the year at the request of individual State directors, and organized consideration was given to the problems of administrative supervision at five bi-regional conferences.

At the request of a group of State directors of agencies serving the blind who had completed an analysis of the needs of the program, the Office of Vocational Rehabilitation conducted in-service training for professional personnel concerned with the rehabilitation of the blind. Sixty-one counselors and supervisors from 30 States attended the two workshops on rehabilitation of the blind convened at Newark and Denver.

To develop employment opportunities in industry for blind persons who can be rehabilitated, many agencies serving the blind employ staff members who are themselves totally blind. The methods and techniques used in this work are highly specialized, and require the ability to demonstrate the capacities of blind persons to prospective employers on actual jobs in their own plants. Consequently, it is imperative that staff members who do this work be kept abreast of technological advances in industry.

To meet this need, refresher training for experienced industrial employment counselors for the blind, who are themselves blind, was provided by the Office of Vocational Rehabilitation at a meeting of these counselors in Philadelphia. Emphasis was placed upon methods for visiting industrial plants, salesmanship, vocational training for the blind, employment counseling, and industrial jobs currently being filled by blind workers. Authorities in the fields of selling, industrial management, labor relations, personnel relations, workmen's compensation and insurance, and employment counseling assisted in the training.

Similar in-service training was provided for sighted and partially sighted counselors for the blind at an institute on placement conducted by the Office of Vocational Rehabilitation at Cincinnati. This institute was attended by 28 counselors from eight States, and dealt with techniques for placing blind persons in competitive employment. In addition, five State agencies serving the blind received extensive technical assistance from the Office of Vocational Rehabilitation dur-

ing the year in providing specialized training for their counseling staffs.

To inform psychologists and other guidance personnel of adaptations necessary to make psychological testing and evaluating methods suitable for use with blind persons, the Office of Vocational Rehabilitation developed a film strip illustrating exact procedures. Produced in color with sound, this teaching aid is now available commercially. It is widely used in the training of professional personnel in universities and in public and voluntary agencies concerned with rehabilitation.

Serving America's Disabled

PHYSICAL RESTORATION

The importance of medical service to disabled people served by the State-Federal program for vocational rehabilitation is evident from the substantial proportion of State and Federal funds spent by the program in 1953 for the purchase of medical examinations and treatment. During the 1953 fiscal year, more than 40 percent of the program's total case service expenditures were made for medical diagnoses, medical treatment, hospital care, and prosthetic appliances.

Over the past 5 years physical restoration services have absorbed a steadily increasing proportion of the case service expenditures from State and Federal funds. This is a reflection of the greater emphasis being placed upon the rehabilitation of the more severely disabled, and on efforts to remove or reduce disabilities when this is feasible.

During the year, medical and psychiatric examinations were purchased for 101,074 disabled persons at a total cost of \$1,249,270. Medical treatment was purchased by public rehabilitation agencies for 26,068 disabled individuals at a cost of \$2,710,280. Hospital and convalescent home care was purchased for 16,237 persons at a cost of \$2,858,499. Prosthetic appliances, costing \$2,032,710, were purchased for 17,837 clients of the program. The total expenditures for all medical services, including physical examinations, amounted to \$8,850,759.

As a large purchaser of medical services from practicing physicians, hospitals, and other facilities, the State-Federal program has a continuing need for medical guidance to ensure that the best possible use is being made of available medical resources, and that expenditures for this service produce maximum benefits to the disabled. All State rehabilitation agencies employ medical consultants to advise State directors and their staffs on medical policies and on the advisability of undertaking physical restoration in specific cases. In 16 States, local medical consultants have been appointed to make medical advice more accessible to counselors in local offices.

Federal responsibilities to the program in this field consist of formulating medical policies, providing technical consultation to State agen-

cies, and encouraging cooperation with public and voluntary agencies concerned with rehabilitation.

The rehabilitation of individuals with epilepsy, heart disease, mental and emotional disturbances, hearing loss, and some other severe disabilities often require special consideration from the medical standpoint. To improve service in these areas of disability, the Office of Vocational Rehabilitation secured technical advice from six of the Nation's leading medical authorities in these specialties. During the year consultative services on the medical and psychiatric aspects of State programs were provided to 16 State agencies.

Through its Division of Medical Service, the Office of Vocational Rehabilitation has continued to work closely with the Public Health Service, the American Heart Association, the National Society for Crippled Children and Adults, the American Psychiatric Association, and similar organizations, for the promotion of community-sponsored services for rehabilitation. In addition the Office of Vocational Rehabilitation collaborated with the Social Security Administration's Bureau of Public Assistance in shaping policies and standards for determining permanent and total disability in cases of mental illness and retardation.

Among the important services rendered to State rehabilitation agencies during the year was that in connection with staff development in the medical aspects of rehabilitation. This took the form of courses for physicians who are consultants to State agencies, and extensive assistance to groups of counselors to increase their understanding of human personality, mental illness, and emotional disturbances.

Fifty-three physicians from 35 States, most of whom are private practitioners serving as part time consultants to rehabilitation agencies, attended three one-week courses conducted by the Office of Vocational Rehabilitation and devoted to the clinical aspects of rehabilitation. Participating in these courses were physicians from the Public Health Service, Veterans Administration, Bureau of Indian Affairs, National Foundation for Infantile Paralysis, Commission on Chronic Illness, Goodwill Industries, State crippled children's services, and State public welfare programs. The courses were held at the New York University-Bellevue Medical Center, Institute of Physical Medicine and Rehabilitation, where participants benefited by actual observation of the most advanced techniques of physical medicine and rehabilitation.

Three mental health workshops for counselors were held during the year under joint sponsorship of the Office of Vocational Rehabilitation and the National Institute of Mental Health of the Public Health Service. The workshops were held at San Jose Teachers' College in California, the Menninger Foundation at Topeka, Kansas, and Columbia University in New York City. Conducted to further

rehabilitation of the mentally ill, these workshops were financed principally by grants from the National Institute of Mental Health to each cooperating institution. Similar projects are planned for the coming year.

In some States, medical consultants to the rehabilitation agencies have participated in the in-service training of counselors. They have been active in promoting an understanding of the objectives and the operations of the public rehabilitation program to the private physicians from whom diagnostic and treatment services are purchased, and have been instrumental in securing more accurate appraisals of physical capacities of the clients. In several States, medical consultants assisted in obtaining cooperation of hospitals and other health agencies on behalf of beneficiaries of the program.

Although all State agencies for the blind have medical consultants, these physicians are, for the most part, ophthalmologists concerned chiefly with eye conditions and with certifying that blindness exists. Case reviews in agencies serving the blind have indicated a great need for more comprehensive medical and psycho-social evaluation.

For the past year and a half the Kansas State agency for the blind, in cooperation with the Menninger Foundation at Topeka, Kansas, has been conducting studies in the psychological aspects of blindness. Group therapy sessions are conducted by a psychiatrist from the Menninger Foundation at the Topeka Adjustment Center for the Blind, and individual psychotherapy is provided in some cases.

For consultation on rehabilitating the mentally ill and emotionally disturbed, and for advice on the emotional needs of physically disabled persons, six State agencies employ consultants in psychiatry. Eighteen State agencies in 16 States utilize medical and psychiatric social work personnel in a consultative or social casework capacity.

REHABILITATION CENTERS

The rehabilitation center is a relatively recent development in response to the need for providing more effective and more comprehensive services in the rehabilitation of the severely disabled. Although there are not now enough of these centers in the United States to fill existing needs, they are increasing in number and are constantly improving the quality of services that they offer.

Most rehabilitation centers, like most hospitals, are under voluntary auspices. Some are privately operated, and a few are under State auspices. Since the State-Federal program for vocational rehabilitation is a large user of rehabilitation centers, the Office of Vocational Rehabilitation is vitally concerned with their number, distribution, and range of services.

Largely for the benefit of State rehabilitation agencies, the Office of Vocational Rehabilitation has become a clearing house for information

on these centers and their services. A full time consultant on the staff keeps the centers informed as to the needs of the program and advises State agencies on the services that centers make available.

Rehabilitation centers use the team approach in bringing to disabled people the special skills of such professional personnel as physicians, therapists, social workers, psychologists, and counselors. Their services are coordinated and furnished on an intensive basis which accelerates rehabilitation. These services make possible the rehabilitation of many severely disabled people who otherwise could not be restored to useful living. Thorough diagnosis of all of the problems associated with disability is a distinctive feature of rehabilitation centers. It is through the integrated services of these centers that some of the most spectacular accomplishments in vocational rehabilitation are made possible.

The past year saw the first nationwide meeting of rehabilitation center directors, which was held under the joint auspices of the Office of Vocational Rehabilitation and the National Society for Crippled Children and Adults. This meeting dealt with such problems as procurement of personnel to staff new and expanding centers, development of effective professional and community relations, and means for improving the services offered. The conference established a continuing committee directed to make further studies of standards, services, and fee schedules.

Three publications of the Office of Vocational Rehabilitation, which are of value to personnel within the State-Federal program as well as to those concerned with rehabilitation centers, are based upon the work of this conference. These are the first directory of rehabilitation centers to be compiled in the United States, a comprehensive description of the services of 40 rehabilitation centers located in 20 States, and the proceedings of the conference committees.

During the past year new centers were established in Iowa, California, and Ohio. In addition, groups in 14 States received advice or technical assistance from the Office of Vocational Rehabilitation with respect to planning or operating rehabilitation centers. Consultative service was given to rehabilitation centers for the blind in four States.

SPECIAL PROBLEMS IN REHABILITATION

The State-Federal program for vocational rehabilitation is concentrating greater effort than ever before on bringing its services to the severely disabled who need help the most. While there are strong humanitarian considerations in the continuing emphasis on serving the severely disabled, there is also even stronger economic justification for channelling a greater part of the program effort in this direction. Rehabilitation of the severely disabled, as a rule, is more costly than the rehabilitation of individuals with less handicapping dis-

abilities. This is particularly true when extensive physical restoration and vocational training are necessary.

However, it is the severely disabled who generally have no earnings whatever, or who are the most likely to become dependent upon public aid for protracted periods of time. Consequently, their restoration to self-sufficiency represents the greatest possible social and economic gain. Their rehabilitation will pay the maximum returns on public funds invested to convert them into taxpaying producers.

The rehabilitation of individuals within certain categories of disability pose problems which require special arrangements in the organization and provision of services. Following is a consideration of some of the problems posed by specific disability categories.

Mental Illness

One of the most costly and socially wasteful of all types of disability is mental illness. All too often, the victim of mental illness becomes progressively worse through neglect, until treatment can offer little or no hope for his return to society. All too often the individual who suffers with mental illness completes his life span in the void of institutional confinement, a drain upon the community and a loss to himself and to his family.

In recent years there has been much progress in combating mental illness. The possibilities for cure and the economy of treatment as opposed to yielding to the inevitability of lifelong confinement have received increasing attention. Mounting evidence is showing that, in a great many cases, expensive treatment is far less costly in the long run than hospitalization.

Experience has confirmed again and again the importance of the contribution which can be made by the public program for vocational rehabilitation in effecting the transition of the mentally ill patient from the hospital setting to the community, and ultimately to employment. Twenty-two State agencies for vocational rehabilitation now have well defined programs for the rehabilitation of the mentally ill. During the year seven additional State agencies, which had not heretofore had specifically defined programs for the mentally ill, assigned special counselors to mental hospitals in their States. In 1953 about 3,000 persons with mental disabilities were rehabilitated under the State-Federal program.

Through a research grant from the National Institute of Mental Health, a study is being made at the Boston State Hospital of the value of rehabilitation services during the patient's hospitalization, and the nature of those mental illnesses most amenable to vocational rehabilitation. The Massachusetts Division of Vocational Rehabilitation has assigned a counselor to this project, which will provide valuable information for the entire program on methods for dealing with problems in this field.

Heart Disease

Much has been written about the increase during the past few decades in deaths due to heart disease. In addition to being one of the major killers among the chronic illnesses, various forms of heart disease disable substantial numbers of people.

One of the most serious obstacles in the rehabilitation of men and women with cardiovascular diseases is the shortage of facilities for determining their capacity for work. Cardiac work classification units, organized to furnish consulting service to physicians and employers and to provide advice on diagnoses, can fill this need. The Office of Vocational Rehabilitation and its associated State agencies are working closely with the American Heart Association and its affiliates, and other voluntary groups, to encourage the establishment of these facilities where they are needed.

During the past year a nationally recognized authority on heart disease, serving as a consultant, provided advice and technical assistance to four State agencies which undertook to improve their services to people disabled by heart diseases. More than 2,600 men and women with heart disease were rehabilitated during the year.

Epilepsy

While spectacular progress has been made in the diagnosis and treatment of epilepsy, the problems faced by the vocational rehabilitation counselor extend far beyond getting the necessary medical services for the client with epilepsy and seeing that his condition is brought under maximum control. The stigma attached to epilepsy persists in spite of extensive educational efforts on the part of both lay and professional groups. The social and vocational adjustment of an adult with epilepsy is dependent in large measure upon the willingness of an employer to accept him.

The counselor must frequently make numerous attempts at placement before one is effected. While the medical rehabilitation of a person with epilepsy is relatively inexpensive, the time involved in making a placement frequently results in a well above average cost per case. More than 1,100 men and women with epilepsy were rehabilitated during the year.

If programs for the vocational rehabilitation of persons having epilepsy are to expand materially, vocational rehabilitation personnel and other informed community groups must make continuous efforts to disseminate facts about epilepsy and the possibilities offered by modern treatment.

Blindness

The vocational rehabilitation of men and women who are blind, or who have severe visual impairments, is rendered extremely difficult

by a general lack of understanding of the potentialities of these individuals. This lack of understanding not only shapes public and employer attitudes, but also pervades the thinking of some professional people whose help is needed to establish blind workers in suitable careers. Equally as serious, many of the visually disabled themselves fail to realize that vocational rehabilitation can be employed to prepare blind persons for paid work and place them in jobs. A major task of informing all segments of the public about the rehabilitation of the blind faces the Office of Vocational Rehabilitation and State agencies serving the blind.

Of an estimated total of 314,000 blind persons of all ages in this country, only about 20,000 of them are gainfully employed. Six thousand are estimated to be working competitively in industry, about 3,700 are in agricultural pursuits, and about 3,000 more are employed in sheltered workshops. Men and women without sight are successfully working in some 300 different occupations.

During the fiscal year, more than 7,400 persons with visual handicaps were rehabilitated through the State-Federal program. Nearly 3,700 of these men and women are blind. An estimated 30 percent of the blind persons rehabilitated during the year are now successfully employed in skilled or semiskilled work, and nearly 17 percent of them are filling professional, semiprofessional, or managerial positions.

Continuing its efforts to expand opportunities for vocational training for blind persons, the Office of Vocational Rehabilitation conducted demonstrations to educators showing methods by which vocational school instructors can train blind students in their regular classes. Public vocational schools in 19 States so far have accepted blind students for training along with the sighted.

Four publications of the Office of Vocational Rehabilitation that are of interest to blind people were reproduced in Braille during the year by the Library of Congress, and placed in its 26 regional libraries. These publications deal with vocational rehabilitation, employment opportunities, and personal and social adjustment.

New records were established during 1953 by the vending stand programs for the blind operated in accordance with the Randolph-Sheppard Act. A total of 1,543 vending stands, of which 568 are in Federal buildings, provided employment for 1,581 blind operators, 228 blind assistants, and 507 sighted assistants.

Net earnings of the operators and their blind employees were \$3,493,174—the highest income ever recorded—on gross sales of \$20,612,277. The money value of the program, including the investment in stands, equipment, merchandise, and other assets, was \$2,774,265 at the year's end. All of these figures represent gains over 1952.

EXPANDING EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED

Working in close cooperation with the President's Committee for the Employment of the Physically Handicapped, the Office of Vocational Rehabilitation contributed substantially to the nationwide program for breaking down prejudice against disabled workers and encouraging employment of qualified men and women with handicaps. The disabled individual selected by the Committee for citation by the President for outstanding accomplishment during the past year was the head of a unique and successful manufacturing enterprise of disabled workers which had been aided by the public rehabilitation program.

To encourage consideration of handicapped job applicants by personnel officers in the public service, the Office of Vocational Rehabilitation suggested a special citation by the President's Committee. This citation henceforth will be awarded annually to the public official or employee who does the most to promote employment of the physically handicapped. In cooperation with the Civil Service Commission, the Office of Vocational Rehabilitation furnished guidance to 15,000 Federal appointing officers in connection with employment of handicapped persons in the civil service.

One of the most formidable barriers in the way of blind persons who might qualify for Federal employment has been the lack of suitable testing procedures for use in competitive selection. During the past year the Office of Vocational Rehabilitation, working with the Civil Service Commission, has collaborated in developing special tests for blind persons interested in Federal positions. Now in experimental use, these tests are expected to open up more employment opportunities for the blind.

To widen opportunities for the blind in industry, the Office of Vocational Rehabilitation continued to seek favorable employment policies from major employers. During the past year two large industrial organizations, with plants in all parts of the country, were added to those which permit employment of qualified blind persons.

The Office of Vocational Rehabilitation is currently assisting the United Mine Workers Welfare and Retirement Fund in the development of plans for the maximum utilization of qualified handicapped personnel in the staffing of the chain of hospitals which are to be built and operated by the Fund in Kentucky, West Virginia, and Virginia.

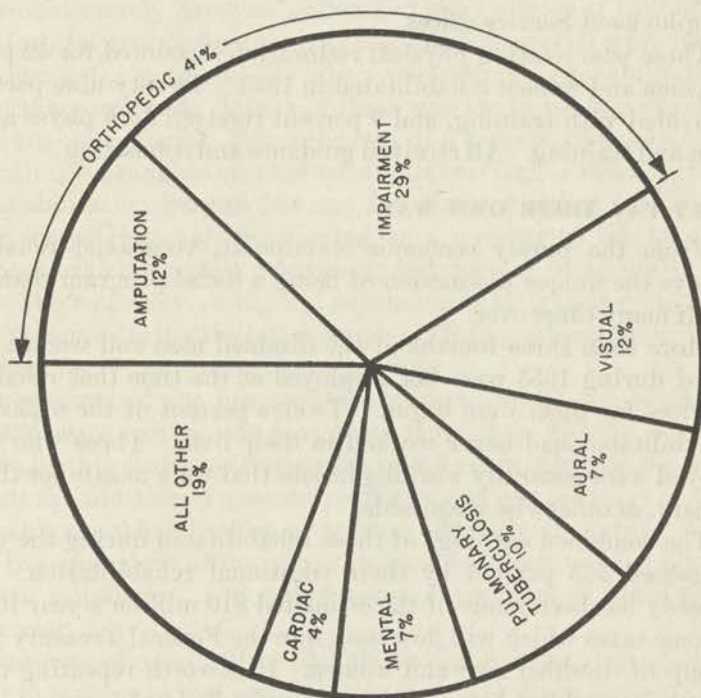
The Disabled Who Are Served**CHARACTERISTICS OF THE PERSONS REHABILITATED**

Chart 1, showing the distribution of disabilities of the persons rehabilitated during the 1953 fiscal year, indicates that individuals with virtually every type of disability can be benefited by vocational

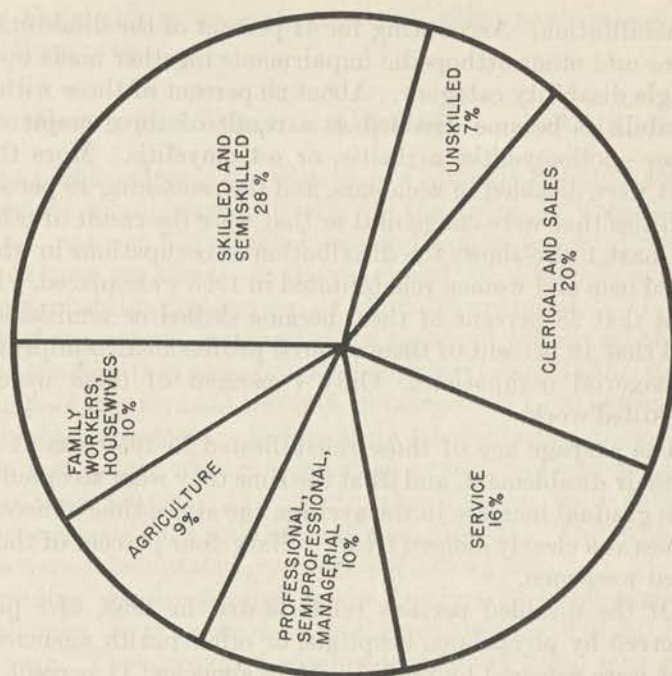
Chart 1.—DISABILITIES AND MAJOR OCCUPATIONAL GROUPS

Percent of rehabilitants, by types of disability at acceptance and by major occupational group at closure, fiscal year 1953

DISABILITIES



MAJOR OCCUPATIONS



rehabilitation. Accounting for 41 percent of the disabilities, amputations and other orthopedic impairments together made up the largest single disability category. About 20 percent of those with orthopedic disabilities became disabled as a result of three major chronic diseases—poliomyelitis, arthritis, or osteomyelitis. More than 40 percent were disabled in accidents, and the remaining 40 percent had disabilities that were congenital or that were the result of other diseases.

Chart 1 also shows the distribution of occupations in which the disabled men and women rehabilitated in 1953 were placed. It is significant that 28 percent of them became skilled or semiskilled workers, and that 10 percent of them entered professional, semiprofessional, or managerial occupations. Only 7 percent of them were placed in unskilled work.

The average age of those rehabilitated in 1953 was 24 at the time of their disablement, and 34 at the time they were accepted for service. The gradual increase in the average age at the time of acceptance continues as a clearly defined trend. Sixty-four percent of those rehabilitated were men.

Of the disabled persons rehabilitated in 1953, 31.1 percent were referred by physicians, hospitals, or other health agencies; 14.1 percent were referred by public welfare agencies; 11 percent applied for help on their own volition; and 8 percent were referred by State Employment Service offices.

Those who received physical restoration accounted for 42 percent of the men and women rehabilitated in 1953. Twenty-nine percent were provided with training, and 9 percent received *both* physical restoration and training. All received guidance and counseling.

THEY PAY THEIR OWN WAY

From the purely economic standpoint, vocational rehabilitation enjoys the unique distinction of being a social program that pays for itself many times over.

More than three-fourths of the disabled men and women rehabilitated during 1953 were not employed at the time that rehabilitation services for them were begun. Twelve percent of the 61,308 persons rehabilitated had never worked in their lives. Those who were employed were generally working in jobs that were unsafe for them, temporary, or otherwise unsuitable.

The combined earnings of those rehabilitated during the year were increased 553 percent by their vocational rehabilitation. Mention already has been made of the estimated \$10 million a year in Federal income taxes which will flow back into the Federal Treasury from this group of disabled men and women. It is worth repeating that, during their working lives, they will pay in Federal income taxes alone more than \$10 for every Federal dollar invested in their rehabilita-

tion. With their ability to work restored, they pay their own way—many times over.

Rehabilitation in the Nation's Capital

During the past fiscal year the District of Columbia Rehabilitation Service, which is administered directly by the Office of Vocational Rehabilitation, restored 333 disabled men and women to useful work. Twenty-six of these are blind. At the year's end 903 disabled persons were receiving rehabilitation services, of whom 101 are blind.

Estimates of the annual earnings of the men and women rehabilitated prior to the time they were provided with services and after their placement in paid employment indicate an increase of 1,700 percent—one of the highest on record. Before their rehabilitation, these 333 disabled men and women were earning at an annual rate estimated at slightly more than \$40,000. After their rehabilitation, their annual earnings were estimated at a total of more than \$750,000. The 26 blind persons who were rehabilitated now earn \$57,148 a year.

The 60 vending stands operated in the District by blind persons rehabilitated under the program did a total gross business of \$1,821,868 during the year. They provided employment for 72 blind men and women, whose combined income from the stands was \$300,238.

Twenty-one severely disabled patients of the District of Columbia General Hospital (formerly known as Gallinger Hospital) were rehabilitated during the year, and 120 others were receiving rehabilitation services at the year's end. Thirty of these who are in process of rehabilitation are out-patients. Since the cost of a hospitalized patient is \$14 a day, the program has effected substantial savings at this hospital.

The Rehabilitation Service has one full time counselor located at Saint Elizabeths Hospital, functioning as a member of the professional teams which provide treatment and service to mentally ill patients. The counselor—a clinical psychologist by training—is able to see the patients during the latter stages of their treatment, and help prepare them for restoration to the community.

The 30 patients of the hospital rehabilitated under the program during 1953 were costing the taxpayers more than \$53,000 a year. Work done by this counselor during the past 2 years supports the conclusion that the addition of a second counselor and one secretary would make possible the rehabilitation of at least 100 patients a year. This would be the equivalent of the current annual increment of the hospital's patient population, and would result in savings of more than \$178,000 a year.

Improvements effected by the Rehabilitation Service during 1953 will result in savings in cost and in better service to the disabled. One of these is the development of a psychometric unit for administering

psychological tests that formerly had to be purchased in the community, or given by counselors.

Better service to the blind, through opportunities for employment under sheltered conditions, will result from the expansion of facilities for rehabilitation at the Columbia Polytechnic Institute. Rehabilitation of the deaf will be benefited by improved facilities for testing hearing and fitting hearing aids installed by the Washington Hearing Society.

The George Washington University Medical School is establishing a pilot study to integrate the concept and skills of complete medical rehabilitation into its curriculum. A rehabilitation counselor has been engaged by the Hospital to provide liaison between the Rehabilitation Service, the University, and other agencies in the District which can contribute to the rehabilitation of the disabled.

Helping Our Friends Abroad

The Office of Vocational Rehabilitation continued to play a leading role in developing basic philosophy for the increasing world-wide interest in vocational rehabilitation. In cooperation with the Office of International Relations of the Department of Health, Education, and Welfare; the Department of State; the United Nations; and the United Nations Specialized Agencies; it planned and supervised training for more than 100 visitors from 25 Nations. The effectiveness of this work is borne out by repeated requests from other countries for inclusion of additional trainees in later training plans, and by the remarkable progress in rehabilitation that some countries have made within short periods after their first trainees have returned home.

As a member of the Interdepartmental Committee on International Social Policy, the Office of Vocational Rehabilitation has responsibility for developing materials on rehabilitation, health, and welfare programs in other countries for use by the Department of State in its work with the United Nations Secretariat, the Economic and Social Council, and the Social Commission.

An example of the materials made available to foreign nations is the motion picture, "Comeback," which was produced for the States by the Office of Vocational Rehabilitation. Prints of this film were made available by the United States Information Agency for distribution in 36 countries.

Table 1.—Number of referrals and cases, by agency, fiscal year 1953

[Corrected to October 1953]

Agency ¹	Referrals				Cases				
	During fiscal year			Re- main- ing at end of year ³	During fiscal year				Re- main- ing at end of year ⁴
	Total	Ac- cepted for services	Not ac- cepted for services ²		Total served	Closed			
						Reha- bilitated	Unem- ployed ⁴	Other reasons ⁵	
United States, total.....	249,372	84,397	77,897	87,078	221,847	61,308	5,771	21,069	133,173
Alabama.....	6,352	2,266	531	3,555	6,903	1,756	235	374	4,528
Alaska.....	162	79	6	77	90	5	0	0	85
Arizona:									
General.....	946	261	252	433	555	180	37	18	319
Blind.....	272	42	158	72	84	30	4	2	48
Arkansas.....	4,921	1,691	1,541	1,689	4,207	1,135	61	553	2,452
California.....	25,072	4,446	16,412	4,214	12,406	2,905	1,005	1,535	6,952
Colorado:									
General.....	1,509	703	383	423	1,534	451	42	157	813
Blind.....	209	58	11	140	147	50	0	7	89
Connecticut:									
General.....	2,256	1,293	365	598	3,528	922	92	319	2,180
Blind.....	163	76	48	39	185	60	14	10	101
Delaware:									
General.....	1,017	572	341	104	1,298	447	31	102	718
Blind.....	56	28	17	11	68	19	10	2	33
District of Columbia.....	1,735	524	824	387	1,408	333	64	103	903
Florida:									
General.....	4,926	1,893	1,455	1,578	5,993	1,318	150	765	3,728
Blind.....	3,201	323	1,885	993	859	237	42	28	546
Georgia.....	21,320	5,359	4,569	11,392	13,143	3,914	335	1,253	7,624
Hawaii:									
General.....	1,322	250	137	935	766	198	71	14	481
Blind.....	83	47	14	22	116	28	0	12	76
Idaho:									
General.....	1,333	185	493	655	432	149	23	14	242
Blind.....	38	12	19	7	48	9	14	5	20
Illinois.....	7,035	4,595	951	1,489	10,518	3,812	170	578	5,936
Indiana:									
General.....	2,804	1,486	669	649	4,487	1,049	81	332	3,010
Blind.....	154	84	14	56	274	70	13	7	177
Iowa:									
General.....	3,461	1,147	930	1,384	2,771	760	47	267	1,697
Blind.....	178	21	73	84	92	27	12	1	52
Kansas:									
General.....	2,646	826	857	963	1,891	604	45	146	1,091
Blind.....	206	83	75	48	163	48	11	10	93
Kentucky.....	2,670	909	641	1,120	2,427	660	23	367	1,372
Louisiana:									
General.....	3,911	1,538	801	1,572	4,846	1,300	66	289	3,180
Blind.....	693	134	116	443	477	90	5	34	348
Maine:									
General.....	1,230	342	310	578	886	218	31	108	526
Blind.....	79	23	31	25	82	19	9	1	53
Maryland.....	4,281	1,590	1,155	1,536	4,288	1,001	109	589	2,582
Massachusetts:									
General.....	3,801	1,022	975	1,804	2,470	712	41	137	1,577
Blind.....	321	141	57	123	142	41	0	5	95
Michigan:									
General.....	7,297	2,899	1,793	2,605	10,389	3,100	485	307	6,490
Blind.....	396	237	84	75	487	142	32	56	253
Minnesota:									
General.....	4,377	933	1,768	1,676	3,276	749	67	183	2,274
Blind.....	343	151	130	62	403	125	0	55	221
Mississippi:									
General.....	2,915	1,111	586	1,218	3,148	913	38	136	2,047
Blind.....	350	197	94	59	499	145	10	13	328
Missouri:									
General.....	3,280	1,632	1,186	462	4,226	1,178	128	883	2,034
Blind.....	336	148	74	114	465	121	28	20	291
Montana:									
General.....	1,212	406	357	449	1,096	381	9	51	649
Blind.....	137	20	85	32	75	9	8	5	52
Nebraska:									
General.....	994	609	143	242	1,514	571	28	20	892
Blind.....	173	26	65	82	105	31	2	6	66
Nevada.....	242	67	145	30	188	63	0	27	98

See footnotes at end of table.

Table 1.—Number of referrals and cases, by agency, fiscal year 1953—Con.

[Corrected to October 1953]

Agency ¹	Referrals				Cases				
	During fiscal year			Re- main- ing at end of year ²	During fiscal year				Re- main- ing at end of year ²
	Total	Ac- cepted for services	Not ac- cepted for services ²		Total served	Closed			
						Reha- bilitated	Unem- ployed ⁴	Other reasons ⁵	
New Hampshire:									
General.....	529	192	202	135	442	100	15	115	210
Blind.....	59	39	10	10	74	17	0	3	54
New Jersey:									
General.....	2,688	1,189	964	535	3,148	887	136	291	1,827
Blind.....	434	172	174	88	475	111	25	19	315
New Mexico:									
General.....	933	240	311	382	661	213	8	24	415
Blind.....	104	39	25	40	88	20	1	2	65
New York:									
General.....	11,561	7,536	2,289	1,736	15,840	4,114	398	2,887	8,437
Blind.....	972	370	201	401	842	262	65	36	478
North Carolina:									
General.....	6,313	3,009	1,797	1,507	7,523	2,450	86	805	4,178
Blind.....	1,171	462	449	260	1,551	299	18	126	1,102
North Dakota.....	1,038	282	295	461	686	207	17	42	414
Ohio:									
General.....	4,225	1,352	1,274	1,599	3,351	1,154	57	228	1,905
Blind.....	510	192	128	190	771	165	41	48	517
Oklahoma.....	4,018	2,275	887	856	6,053	1,284	41	598	4,129
Oregon:									
General.....	4,816	831	1,726	2,259	2,521	562	59	345	1,550
Blind.....	153	43	67	43	161	31	6	21	102
Pennsylvania:									
General.....	14,198	4,681	4,799	4,718	10,670	3,493	106	1,343	5,689
Blind.....	2,431	521	873	1,037	1,391	218	46	139	981
Puerto Rico.....	4,539	1,188	1,264	2,087	2,695	737	56	159	1,741
Rhode Island:									
General.....	878	317	308	223	1,057	317	52	66	622
Blind.....	44	40	2	2	181	21	0	7	149
South Carolina:									
General.....	5,141	1,801	1,585	1,755	4,863	1,580	68	268	2,935
Blind.....	335	128	123	84	276	95	3	35	142
South Dakota:									
General.....	522	197	38	287	675	135	1	42	493
Blind.....	97	29	22	46	71	22	0	17	32
Tennessee:									
General.....	4,875	1,997	1,414	1,464	4,536	1,602	95	221	2,526
Blind.....	705	161	186	358	564	98	14	23	427
Texas:									
General.....	9,906	2,928	2,331	4,647	9,554	2,080	120	663	6,670
Blind.....	1,497	301	652	544	801	260	25	50	463
Utah.....	1,170	380	299	491	1,091	290	14	22	763
Vermont:									
General.....	558	165	237	156	492	142	23	73	252
Blind.....	60	19	19	22	71	20	2	2	45
Virginia:									
General.....	9,291	3,019	3,751	2,521	6,320	1,832	64	929	3,471
Blind.....	202	71	94	37	135	43	31	9	50
Washington:									
General.....	5,278	1,263	1,126	2,889	3,600	1,005	84	196	2,306
Blind.....	103	45	23	35	217	31	7	27	150
West Virginia.....	11,105	2,614	3,179	5,312	7,126	1,655	85	1,171	4,206
Wisconsin:									
General.....	3,311	1,505	691	1,115	4,982	1,333	147	72	3,423
Blind.....	* 259	* 108	89	62	327	80	15	21	207
Wyoming.....	928	181	367	380	510	168	12	18	310

¹ In States which have 2 agencies, the agency under the State board of vocational education is designated as "general," and the agency under the State commission or other agency for the blind is designated as "blind."

² Services declined, services not needed, individual not eligible, individual needing services other than vocational rehabilitation, referred to other agencies, migratory shifting of the individual, etc.

³ Eligibility for rehabilitation not determined.

⁴ Closed after rehabilitation plan was agreed upon and approved by supervising official; received rehabilitation service but never reached the point of employment because of personal factors, illness, aggravated disability, etc.

⁵ Closed prior to initiation of rehabilitation plan, because of indifference of individual; probable increase in degree of disability; loss of contact; etc.

⁶ In process of rehabilitation on June 30, 1953.

⁷ The 221,847 total cases served include 526 cases transferred to other agencies.

⁸ Adjusted.

Table 2.—Total program expenditures from Federal and State funds for vocational rehabilitation by State boards of vocational education, fiscal year 1953

State or Territory	Federal and State funds			Classification of expenditures	
	Total	Federal	State	Administration and vocational guidance and placement services	Purchased services
Total.....	\$31,126,311	\$20,406,115	\$10,720,196	\$11,520,723	\$19,605,588
Alabama.....	901,564	579,855	321,709	309,745	591,819
Arizona.....	144,831	94,770	50,061	46,485	98,346
Arkansas.....	545,489	364,259	181,230	183,029	362,460
California.....	2,487,377	1,671,053	816,324	971,920	1,515,457
Colorado.....	187,842	133,042	54,800	89,812	98,030
Connecticut.....	404,482	276,952	127,530	176,200	228,282
Delaware.....	194,193	126,217	67,976	79,406	114,787
Florida.....	829,264	551,249	278,015	277,237	552,027
Georgia.....	2,413,493	1,486,957	926,536	720,971	1,692,522
Idaho.....	71,816	48,392	23,424	24,968	46,848
Illinois.....	1,965,656	1,263,908	701,748	645,384	1,320,272
Indiana.....	498,801	328,106	170,695	167,997	330,804
Iowa.....	409,556	275,843	133,713	164,791	244,765
Kansas.....	270,785	182,845	87,940	94,904	175,881
Kentucky.....	229,409	146,393	83,016	108,977	120,432
Louisiana.....	658,398	426,471	231,927	304,989	353,409
Maine.....	113,138	77,933	35,205	42,727	70,411
Maryland.....	509,467	315,293	194,174	241,781	267,686
Massachusetts.....	376,643	226,599	150,044	177,973	198,670
Michigan.....	1,352,753	932,245	420,508	522,942	829,811
Minnesota.....	385,027	253,416	131,611	144,450	240,577
Mississippi.....	489,335	299,530	189,805	197,001	292,334
Missouri.....	536,703	362,245	174,458	217,787	318,916
Montana.....	178,160	124,351	53,809	84,150	94,010
Nebraska.....	248,008	161,354	86,654	81,608	166,400
Nevada.....	35,585	25,975	9,610	16,365	19,220
New Hampshire.....	62,134	42,671	19,463	23,208	38,926
New Jersey.....	498,977	342,508	156,469	221,891	277,086
New Mexico.....	137,548	88,969	48,579	40,374	97,174
New York.....	1,878,870	1,236,749	642,130	811,209	1,067,670
North Carolina.....	890,547	562,390	328,157	252,197	638,350
North Dakota.....	148,057	92,738	55,319	43,840	104,217
Ohio.....	528,009	366,408	161,601	204,807	323,202
Oklahoma.....	722,167	486,585	235,582	256,306	465,861
Oregon.....	461,346	272,978	188,368	159,650	301,696
Pennsylvania.....	2,234,942	1,416,739	818,203	714,926	1,520,016
Rhode Island.....	128,173	87,572	40,601	50,354	77,819
South Carolina.....	681,683	461,712	219,921	248,275	433,358
South Dakota.....	96,230	63,448	32,782	30,667	65,563
Tennessee.....	777,578	524,720	252,858	283,754	493,824
Texas.....	1,263,153	834,438	428,715	430,778	832,375
Utah.....	165,159	122,135	43,024	81,128	84,031
Vermont.....	121,406	78,910	42,496	36,414	84,992
Virginia.....	675,080	457,417	217,663	265,168	409,912
Washington.....	687,088	443,762	243,326	322,392	364,696
West Virginia.....	729,498	504,613	224,885	283,115	446,383
Wisconsin.....	706,056	465,600	240,456	267,527	438,529
Wyoming.....	118,962	84,766	34,196	50,571	68,391
Alaska.....	56,168	41,436	14,732	26,705	29,463
District of Columbia.....	258,374	173,344	85,030	124,098	134,276
Hawaii.....	195,041	132,939	62,102	70,837	124,204
Puerto Rico.....	466,331	285,315	181,016	126,933	339,398

Table 3.—Total program expenditures from Federal and State funds for vocational rehabilitation of the blind by State commissions or agencies for the blind, fiscal year 1953

State or Territory	Federal and State funds			Classification of expenditures	
	Total	Federal	State	Administration and vocational guidance and placement services	Purchased services
Total.....	\$3,456,827	\$2,541,466	\$915,361	\$1,798,822	\$1,658,005
Arizona.....	40,578	28,478	12,100	16,377	24,201
Colorado.....	48,822	35,028	13,794	29,842	18,980
Connecticut.....	35,391	28,608	6,783	23,023	12,368
Delaware.....	42,076	31,270	10,806	20,464	21,612
Florida.....	247,996	182,621	65,375	137,712	110,284
Idaho.....	19,607	14,760	4,847	9,919	9,685
Indiana.....	54,127	43,909	10,218	34,206	19,921
Iowa.....	26,562	19,579	6,923	13,026	13,476
Kansas.....	65,859	47,817	18,042	35,958	29,901
Louisiana.....	88,142	73,145	14,997	61,043	27,099
Maine.....	26,204	16,660	9,544	17,976	8,228
Massachusetts.....	44,007	35,864	8,143	27,722	16,285
Michigan.....	129,281	93,221	36,060	84,459	44,822
Minnesota.....	84,136	62,651	21,485	45,624	38,512
Mississippi.....	124,868	96,625	28,243	69,513	55,355
Missouri.....	120,051	95,273	24,778	70,495	49,556
Montana.....	21,511	17,767	3,744	15,133	6,378
Nebraska.....	46,892	35,324	11,568	25,052	21,840
New Hampshire.....	18,424	11,239	7,185	11,957	6,467
New Jersey.....	133,267	101,437	31,830	81,594	51,673
New Mexico.....	31,110	22,047	9,063	16,047	15,063
New York.....	367,512	249,267	118,245	131,022	236,490
North Carolina.....	358,793	247,969	110,824	137,145	221,648
Ohio.....	189,928	136,495	53,433	109,267	80,661
Oregon.....	59,435	40,703	18,732	21,971	37,464
Pennsylvania.....	321,546	236,365	85,181	166,184	155,362
Rhode Island.....	34,555	24,792	9,763	23,148	11,400
South Carolina.....	51,801	40,422	11,379	31,779	20,027
South Dakota.....	22,490	17,420	5,070	12,350	10,142
Tennessee.....	170,856	128,106	42,750	86,265	84,590
Texas.....	201,668	156,555	45,113	114,156	87,511
Vermont.....	21,267	15,471	5,796	10,642	10,622
Virginia.....	52,589	34,371	18,218	16,153	36,435
Washington.....	38,010	29,478	8,532	26,969	11,046
Wisconsin.....	80,762	63,755	17,007	47,445	33,311
Hawaii.....	36,764	26,974	9,790	17,184	19,587

Saint Elizabeths Hospital

THE PATIENT is the most important person in the hospital; the entire organization of the institution revolves about him. The responsibility for the medical care of each of the patients in the Saint Elizabeths Hospital is assigned to the three Clinical Branches and the Medicine and Surgery Branch, the latter of which includes the tuberculosis service. All the other activities, such as the Laboratory, the Dietetic Service, the Construction Department, and so on, are auxiliary to these four branches.

A total of 8,795 patients were given hospital care and treatment during the year as compared with 8,516 the year before, or an increase of 279 patients. Of these, 397 were readmissions, that is, patients who had been cared for previously in this hospital or in similar institutions. Discharges increased also from 814 to 977 or 64.1 percent of admissions. The average stay of the 977 patients discharged showed an increase over the previous year from 520 to 699 days. On June 30, 1953, 7,382 patients remained on the hospital rolls, or an increase of 111 over a year ago. Patients actually in the hospital at the close of the year, 7,113, showed an increase of 74.

Division of Medical Services

The program of psychiatric and general medical care and treatment of patients carried out in the various branches of this division during the year is outlined below.

CLINICAL BRANCHES

Each clinical branch, comprising 2,000 or more patients, is in charge of a Clinical Director. The usual activities of the clinical branches, which deal with the treatment and care of patients, education, and re-

search, have been maintained at a reasonably acceptable standard during the year, although the growing difficulties previously reported on account of overcrowding and shortages of personnel have continued in increased degree.

Attention has been given in previous reports to the problems of overcrowding of patients and shortages of professional and ward personnel. There are opinions in certain circles that the size of the hospital should not increase. The fact remains, however, whether or not this position be taken, that the number of patients is growing steadily, that their average age is increasing, and that the tendency of the older patients is to remain longer. Increasing attention to the possibilities of finding homes for patients outside of the hospital has resulted in an increase this year in the discharges, so that the net gain of patients in the hospital during the year was only 111 or 1.43 percent as against 3.57 percent last year.

The proper bed capacity of the hospital at the present time is 6,213. There were actually in the hospital on June 30, 1953, 7,113 patients, an excess of 900 or 14.2 percent over the actual bed space. It is expected that one of the two vacant wards in the Geriatrics Building may be occupied within the coming year, but the situation is still far from ideal. There should be at least 10 percent of vacant beds available at any time in order to have proper mobility of patient load. The proportion of ward personnel has not increased with the patient population; since August 1948 there has been a gain of 135 employees as against 886 patients. At present the ratio is approximately 25 percent below that considered proper by the American Psychiatric Association.

In spite of all the difficulties, the staff of the hospital have been most energetic in bringing about releases, with a very satisfactory result overall for the current year.

It was reported last year that it was necessary to maintain a waiting list of prisoners in Howard Hall, the maximum security section of the hospital, and to accept prisoners as patients only as space permits. This was a most unfortunate situation, and all possible steps have been taken to remedy it. At present the number on the waiting list has been substantially reduced, and efforts are under way to reduce it still further. The replacement for the present Howard Hall is most urgently needed. The hospital's request for funds for planning a new maximum security division has been approved by the Bureau of the Budget and is now pending before the Congress. This section of the hospital contains the most destructive, violent, assaultive, and problem male patients of the entire hospital. Understaffing in a division of this type is particularly dangerous.

Reference has been made during the past several years to the difficulty of filling medical positions in the hospital; this condition persists. The number of internships and residencies available exceeds

by a considerable degree the number of candidates. For the coming year, for example, only 3 interns have been secured for the 12 available positions. The number of residents seeking training has tended to fall as well. The financial returns in the private practice of psychiatry are most tempting, with the result that very few of the residents care to stay in the hospital work once their training is completed. Another factor is the competition which exists from another agency of the Government which is permitted by statute to pay a salary premium of 25 percent to diplomates of specialty boards, a privilege which is not extended to Saint Elizabeths Hospital.

The problem of the elderly patient continues to become more serious. During the past year there was considerable increase in the proportion of women over 60 years of age who were admitted. A year ago about 33 percent were in this age category, whereas during the current year nearly 41 percent were 60 years of age or older. During the year a substantial number of elderly patients who were not in need of active psychiatric care and who were relatively quiet and orderly was sent to the District Home for the Aged and Infirm, although a number had to be returned to the hospital. Every effort is being made to send patients to the District institution as facilities permit. The Geriatrics Building has been functioning very satisfactorily despite difficult conditions of staffing. Several clinical studies have been made on patients there, and the building itself has attracted a large number of visitors from this and other countries. The number of voluntary patients admitted to the hospital appears to be steady; 90 were admitted during the current year.

The number of Miller Act patients, that is, the so-called "sexual psychopaths," has shown a distinct drop. This appears to be due to the change in policy on the part of the District Attorney's Office. Although since the passage of the act in 1948, 61 such inmates have been admitted, the number during the current year was only 5. Of the 61 who have been admitted, 33 have been discharged as having received the maximum benefit. If it appears likely that the Miller Act will be substantially used again, the hospital is prepared to recommend certain changes which will make it more flexible and probably on the whole considerably more useful.

As in the past, the hospital has attempted to follow an eclectic approach in the line of treatment, holding itself ready to utilize any new methods of treatment which seem to offer help to the patient without incidental harm and without undue devotion to any preconceived notions as to psychopathology or treatment. The number of patients receiving individual psychotherapy has been increased during the year, and a very active program of group therapy is being continued. During the year the psychodramatist left for another position, but it is hoped to resume this therapeutic activity again in

the near future. It has been used on a modified scale during the current year in connection with the rehabilitation program.

This latter program has been carried out with the aid of the District of Columbia Rehabilitation Service, which has been very helpful in cooperating with the Social Service Branch. The Board of Education of the District of Columbia has provided a visiting teacher for the benefit of some of the young patients of the hospital, and the recreational and occupational therapy programs are still expanding.

Electroshock, subshock insulin therapy, and hydrotherapy have been actively used, especially the latter. The hospital is not imbued with the idea that electroshock is a panacea, but in selected cases it seems very effective. Prefrontal leukotomy (lobotomy) is still looked upon as only an operation of last resort; very few cases are being approved for its use, then only after all other known applicable forms of therapy have been tried without benefit. Only 38 lobotomies were performed during the year. Transorbital lobotomy has not been utilized at all.

The number of petitions for habeas corpus has been considerably less this year than last, there being only 27 such writs issued, in addition to 15 orders to show cause. This is a very substantial drop from last year, the total number then being 54 writs and 12 orders. Even this number, however, represents a very considerable investment of the time of the physicians and the ward personnel, particularly when (as is sometimes the case) numerous continuances are ordered after the patient has been taken to court. During the year only 3 patients were released by the court as a result of such proceedings.

MEDICINE AND SURGERY BRANCH

This branch functions through the Medical, Surgical, Neurological, Syphilological and Clinic Services. This hospital is still the only public mental hospital in the United States which is approved by the American Medical Association for rotating internship. The hospital is also approved for a period of residency training in surgery and for internship in dentistry.

The services of this branch are available to the patients of the hospital and to those employees who become ill or injured while on duty. During the year, 2,468 patients were admitted to the wards of the branch and a total of 64,184 visits were made to the various clinics. A large staff of visiting physicians and consultants has augmented the services of the branch in various special fields, such as dermatology, ophthalmology, and so on. During the year it has been arranged to have in residence a fourth year resident in surgery from George Washington University Hospital who is supervised by daily visits of the various members of the surgical teaching staff of that hospital. This has resulted in a very substantial increase in the num-

ber of operations and in the quality of the surgical service which could be rendered to the patients.

During the year the head of the Neurological Service was called to active duty in the Armed Forces and for that reason the Neurological Service has been temporarily given up. The inactive cases of tuberculosis have been concentrated in R Building, which has recently been used as a neurological center. It has been found that although the results with some of the antibiotics have been most gratifying in the treatment of pulmonary tuberculosis there are sometimes sudden flareups which render it highly undesirable to have the so-called inactive cases distributed through the hospital with other non-tuberculous patients. The number of patients with active syphilis coming to the attention of the hospital is falling steadily.

PSYCHOTHERAPY BRANCH

This branch carries on a considerable variety of activities. The psychodrama section has been considerably less active during the large part of the year on account of the absence of the director of that particular aspect of the work. Rehabilitation psychodrama activity has been carried on in conjunction with the Social Service Branch for the purpose of orienting convalescing patients to the problems they are likely to face upon their discharge. The group sessions conducted by Alcoholics Anonymous have been continued. Individual psychotherapy has been carried out both by the members of the branch and by the physicians on the ward services. The art sessions offer much pleasure and a therapeutic value to the patients who attend them. The dance therapy program likewise continues to be of value and interest to the patients. Both the art and the dance activities have proven particularly useful in the resocialization of patients by giving them the opportunity for self-expression. They are quite unusual in many ways and have attracted a great deal of attention from visitors to the hospital.

The psychology section has continued to function actively. A total of 2,708 tests were given during the year, both to patients and to attendants and other personnel, and a very considerable number of lectures has been given by members of this section to residents, nurses, and others. The integration of psychology with psychiatry is an old story at Saint Elizabeths Hospital. Not only do the representatives of the section give the tests but they attend the staff meetings and discuss with the physicians the psychological findings and their significance. They have likewise done a certain amount of individual and group therapy, although the number of personnel in the section do not permit any extensive activity along this line as yet. The section is looked upon as an important teaching center and is utilized by students from the George Washington University and Catholic University.

LABORATORY BRANCH

This Branch continues to be very thoroughly occupied by the demands from the Medical and Surgical and the Clinical Branches. It has not yet been possible to obtain a trained encephalographer. The autopsy rate has continued high; during the year there were 437 deaths and 275 autopsies, or a percentage of 62.9. The work of the year may be summed up as follows:

Bacteriology (cultural studies of autopsies and exudates, examination of smears, etc.)	5,780
Serology (blood typing and cross matching, etc.)	19,547
Urine analyses	35,449
Blood and feces examinations	13,607
Biochemistry (blood analyses and tests, functional tests, including electrocardiograms and basal metabolisms)	12,201
Electroencephalograms	125
Histopathology (surgical pathology and post-mortem pathology)	5,447
Autopsies (percentage of deaths 62.9)	275
Photography	8,974

An active program of lectures for the benefit of the residents and the rest of the staff has been carried out and a number of researches are under way, among them studies of cortisone, LSD 29, sodium amytal, methedrine, pyridin, and the use of metrazol in the aged.

NURSING BRANCH

The last class of the School of Nursing was graduated in September 1952. The program for psychiatric aides, a group less intensively trained than graduate nurses, will be inaugurated during the coming year. Nine training schools send their affiliates to this hospital for a 12-week course of training, and 132 affiliates have been trained during the year. Some training has been afforded to hospital corpsmen of the Navy (84), and opportunities for field service have been given to the Graduate School of Nursing of Catholic University. A nurse intern program with full college credit was carried on during the year with American University.

OCCUPATIONAL THERAPY BRANCH

Although there have been a number of changes in personnel, the activities of this branch have continued at a high pitch, both on the wards and in various shops. The recreational program has been further developed with softball and tennis. Motion pictures have been shown on the wards regularly for the benefit of patients who are unable to go to the regular shows in Hitchcock Hall. A very successful Play Day for the general group of patients and a Field Day for the Howard Hall patients was carried on during the year with great success. Several outside entertainments have been brought to the hos-

pital through the efforts of the branch. Five schools of occupational therapy now use Saint Elizabeths Hospital for field training.

SOCIAL SERVICE BRANCH

During the year, 2,097 patients were given service, representing an increase of 449 over last year. A great deal of emphasis has been placed on discharge activities, and for this reason it has been necessary to discontinue the former practice of giving 100-percent coverage to incoming patients. The hospital believes, however, that this shift in emphasis is well worthwhile, as is shown by the increased number of discharges during the year. A particular project under way has been that of developing family care, that is, finding families other than those of the patient himself where the patient could be cared for. The branch is now supervising 14 such patients. It is this family care activity and the other discharge activities which account for the fact that during the year the discharged patients showed a somewhat increased average residence in the hospital. Many of these patients had been in the hospital 10 years or more, and the fact that they could be replaced in the community after that lapse of time indicates well the effectiveness of such a program and its value in adjustment.

The rehabilitation worker provided by the District of Columbia Rehabilitation Service has been extremely effective in connection with the Social Service Branch. He has had 90 patients in training during the year and at least 50 have been placed in jobs. During the year, 14 social work students from Catholic University and Howard University have been under supervision, 2 doctoral dissertations are in progress, and 8 individual theses have been prepared.

CHAPLAIN BRANCH

Regular services have been conducted for the Catholic, Protestant, and Jewish patients. The services have been well attended and every effort is made to enable every patient to attend the services, provided his physical and mental condition permits. Patients who are unable to attend the services are given such religious attention as they desire on their wards. In addition to the regular services in Hitchcock Hall and Howard Hall, services have been conducted regularly in the new Geriatrics Building for the benefit of those aged patients who are unable to go to the regular services in Hitchcock Hall.

The hospital has two full-time Protestant chaplains, a full-time Catholic chaplain and a full-time Catholic chaplain resident, and a regular part-time Jewish chaplain. The Protestant chaplain is in charge of the general training program for theological students, as well as carrying out his duties of parochial and sacramental services to the Protestant patients.

During the year, 31 students or ordained clergy have completed a prescribed period of training. Since the clinical pastoral training program at Saint Elizabeths Hospital began in the spring of 1945, 165 seminarians or ordained clergymen have received their training at the hospital. Of these, 135 have taken a minimum of 3 months' training or longer. Sixty-one have been ordained clergymen and 20 have undertaken to work full or part time in the mental hospital chapel service. The program has served 11 different churches and denominations and has included two Negro clergymen and one foreign student.

The Protestant chaplains work closely with the other chaplains, as well as with the various religious representatives in the community, and a high degree of friendly cooperation has existed among all of those who are ministering to the religious needs of the patients. The Catholic chaplain and his resident have conducted a mass in the chapel in Hitchcock Hall every day, and, in addition, two masses have been said on Sunday in Hitchcock Hall and one in Howard Hall, the maximum security section.

It is the general policy of this hospital that every patient received at the hospital should be visited by a representative of his faith as soon as possible after his arrival at the institution, so that he may know that there is a clergyman who is interested in him. In addition, of course, any patient may have his own clergyman or a clergyman of his own denomination visit him from outside if he so desires. Jewish services have been held regularly under supervision of the Jewish chaplain and the assistance of the Jewish Welfare Board.

For several years attention has been invited to the needs for an interdenominational chapel. Funds for this purpose have been provided by the Congress and, although they are temporarily impounded, it is expected that before long construction may be started on what is an extremely urgent need for the spiritual welfare of the patients of this hospital.

LIBRARY SERVICES

The Medical Library of the hospital is operated primarily for the benefit of the medical staff. There are also deposits in the office of the Nurses' Training School and in the doctors' office of the Medical and Surgical Building. Through the year there were 585 acquisitions, the total now standing at 16,063 volumes, plus about 14,000 miscellaneous pamphlets. Approximately 1,100 volumes were borrowed by members of the medical staff, and over 400 volumes were borrowed by the library on interlibrary loan. The Armed Services Library, the Library of Congress, and the Library of the Department of Health, Education, and Welfare have been particularly helpful.

The patients' library is in charge of one employee who is assisted by 20 or more patients. Through the year there were 1,433 accessions, the total number of volumes now being 39,079. There has been an average circulation per month of approximately 5,200 books, and the number of deposits on the various wards has been increased for the benefit of the patients who find it inconvenient to come to the patients' library. In addition to the circulation of books, there are periodical book reviews, informal readings, and plays.

RED CROSS ACTIVITIES AND SPECIAL SERVICES BRANCH

Effective September 30, 1952, the National Red Cross found it impossible to continue further its services to certain governmental institutions, including Saint Elizabeths. Thus, an intimate connection with the Red Cross, lasting since the days immediately following World War I, by which a Unit was maintained on the grounds, came to an end. The Special Services Branch was set up to take over the function so far as possible, and the hospital was able to continue the services of three of the persons who had been up to that time employees of the Red Cross. There was thus practically no external appearance of change, except for uniforms, in the whole program. The closest of relations have been carried on since that time, by the Special Services Branch with the District Chapter of the American Red Cross.

The trips of the patients to the symphony concerts, ball games, and other entertainments have been provided, the regular program of moving pictures in Hitchcock Hall has continued, and the various volunteer services, such as the Motor Corps and of the Production and Supply Service of the Red Cross, have been extremely active. During the period from October 1 (9 months) 2,169 volunteers have contributed a total of nearly 5,000 hours. Many evening parties, concerts, and dances have been conducted. The Canteen Service has provided refreshments on the wards once a week throughout the year. The Red Cross House has been kept open every day, serving well over 10,000 persons per month.

TEACHING ACTIVITIES

The extensive program of teaching and training reported in last year's report has been carried on during the current year. The hospital is approved for training in psychiatry during the 3 years of residency called for by the American Board of Psychiatry and Neurology as a prerequisite for a diploma, and a well-trained psychiatrist acts on a half-time basis, serving under the First Assistant Physician. He arranges the schedule of lectures and gives the residents guidance and supervision. The hospital is approved also for a rotating internship, affiliations being provided at the District of Columbia General Hos-

pital for the interns and at the George Washington University Hospital for the residents.

The hospital has close affiliation with the three medical schools in the District, namely, George Washington, Georgetown, and Howard Universities. Dental interns and residents in surgery are also serving in the hospital under the supervision of the respective approving organizations. The Social Service Branch is actively providing field work for the schools of social service of Catholic University and Howard University, and students of occupational therapy are likewise received for field work. Affiliation for undergraduate and post-graduate nurses is being continued, although the 3-year training course has been given up. A special course for training psychiatric aides will be put into effect in the near future.

General Administration

Many non-medical activities are essential to the discharge of the primary function of the hospital, which is the care of its patients. This portion of the work is organized under the Division of Administration in two Branches. In the Business Management Branch are the Registrar, Dietary, Personnel, Budget and Methods, Property, Purchasing, Finance, and Administrative Service activities and in the Maintenance and Industrial Services Branch are the Construction, Electrical, Mechanical, Garage, Housekeeping, Farm, Lawns and Grounds, Laundry, and Shoe Shop activities. All of these operations contribute more or less directly to the care of the patients, and each year the work of some of them, notably the Budget and Methods, seems to become more complicated. It is impractical to cover all of these activities in detail in an annual report, but a few highlights may be given.

Centralization of patients' baggage and property storage, a study of which was referred to in last year's report, was commenced during the year and at the close of the year was nearing completion. All indications are that the change is highly beneficial. A number of improvements in property management procedures were made during the year including the periodic inspection of all stock rooms throughout the hospital, constituting approximately 190 storage areas, to insure equitable distribution of supplies. The Guard Force was reorganized so as to provide for levels of supervision between the guard captain and the guards, in this way making it possible to distribute responsible supervision throughout a 24-hour day. Reduction of routine clerical work in the ward services is receiving attention.

Continued effort was extended by the Dietary Section toward the improvement of the dietary service and elimination of waste. The average ration cost for the year approximated 83¢. A program of

meal inspection by dietitians and nursing service personnel was instituted during the year, and under this program regular inspections of patients' cafeterias and dining rooms are made jointly by the immediate staff of the Director of Nursing Service, Chief of Staff Dietitians, and Ward Service Supervisors for the purpose of providing constant surveillance of food service. Matters observed during the inspection include the quantity and quality of food, adequacy of service, amount of waste, adequacy of amount of help, and general cleanliness of dining rooms. Instruction in nutrition was given student nurses by the dietetic staff.

Difficulty is still being encountered in recruitment of medical personnel. For the second consecutive year Saint Elizabeths was unable to secure its quota of interns. Recruitment of nurses has diminished to an extent that at the close of the year the hospital nurse complement was 10 percent below quota. The in-service training program for psychiatric aides scheduled for the ensuing year may alleviate this shortage.

Funds were made available by the Congress for a new 420-bed Receiving Building, and a contract for construction was awarded on January 23, 1953. At the close of the year the work was 15 percent completed. It is expected that this much-needed building will be ready for occupancy by the beginning of 1955.

Needs of the Hospital

New maximum security facilities are urgently needed, as are further ward buildings in view of the steadily increasing demand for space. The cafeteria for Continued Treatment Buildings 7 and 8, long since planned, is urgently needed, as are additional boiler facilities and a new vault for the patients' valuables. In view of the damage to the silos of the boiler house, the need for further facilities for coal handling becomes increasingly urgent. It is strongly recommended that consideration be given to statutory permission to pay the premium for diplomats' salaries which is now offered by another Government agency. Additional personnel and additional ward facilities are urgently needed if the proper care which the patients who are entrusted to the care of the United States Government deserve is to continue to be provided.

Table 1.—Patients, admissions, and discharges, fiscal years 1935–53

Fiscal year	Average number of patients on rolls	Total number of admissions	Total number of patients discharged	Percent discharged in relation to admissions	Total number of deaths
1935	5,267	824	396	48.06	304
1936	5,373	925	552	59.68	298
1937	5,538	1,099	490	44.59	332
1938	5,836	1,029	461	44.80	267
1939	6,108	1,056	469	44.41	281
1940	6,395	1,202	619	51.50	322
1941	6,663	1,503	773	51.43	382
1942	6,994	1,797	1,534	84.36	371
1943	7,031	2,324	1,491	64.15	420
1944	7,161	2,599	2,056	79.11	441
1945	7,308	2,935	2,299	78.30	460
1946	7,044	1,909	2,477	129.75	396
1947	6,484	1,339	891	66.54	424
1948	6,621	1,420	856	60.28	431
1949	6,701	1,470	861	58.60	446
1950	6,897	1,648	960	58.25	495
1951	7,053	1,412	928	65.72	424
1952	7,172	1,438	814	56.6	431
1953	7,361	1,524	977	64.1	436

¹ 63.10 without transfer of 400.

Table 2.—Movement of patient population, fiscal year 1953

	Total	Male			Female		
		White	Colored	Total	White	Colored	Total
Total number under care and treatment, fiscal year 1953	8,795	2,851	1,699	4,550	2,576	1,669	4,245
Remaining on rolls June 30, 1952	7,271	2,361	1,365	3,726	2,147	1,398	3,545
Admitted during year	1,524	490	334	824	429	271	700
Total discharged or died	1,413	492	311	803	397	213	610
Discharged	977	335	239	574	265	138	403
Discharged as—							
Not insane	103	58	36	94	4	5	9
Recovered	154	39	48	87	48	19	67
Social recovery	287	74	75	149	88	50	138
Improved	264	94	50	144	69	51	120
Unimproved	169	70	30	100	56	13	69
Died	436	157	72	229	132	75	207
Remaining on rolls June 30, 1953	7,382	2,358	1,389	3,747	2,179	1,456	3,635
On visit or elopement	269	37	43	80	105	84	189
In hospital	7,113	2,321	1,346	3,667	2,074	1,372	3,446

Table 3.—Consolidated statement of movement of patients, by classification, fiscal year 1953

	Reimbursable patients										Nonreimbursable patients																
	Subtotal	Bureau Indian Affairs	D. C. residents	D. C. voluntary	U. S. Soldiers' Home	Veterans Administration	Subtotal	Army	Bureau Employees' Com-	Immigration and Natu-	Bureau National Homes	Canadian Insane	Canal Zone	Coast Guard	D. C. nonresidents	Federal reservations	Foreign Service	Interned aliens	Marine Corps	Navy	D. C. prisoners	Military prisoners	Federal prisoners	Public Health Service	U. S. Soldiers' Home	Virgin Islands	
On rolls, June 30, 1952.....	7,271	5,922	77	5,379	79	364	1,349	282	2	2	5	57	17	18	184	1	4	4	24	116	298	35	110	61	11	118	
Admitted, to June 30, 1953.....	1,524	1,188	0	1,006	90	71	1,336	0	1	0	0	0	3	0	155	6	1	0	0	1	67	0	75	0	6	21	
Separations, fiscal year 1953.....	1,413	1,034	3	828	80	109	379	11	1	0	0	0	3	1	194	4	2	0	0	0	4	73	1	66	8	7	4
Deaths.....	436	393	1	361	4	20	43	8	0	0	0	0	2	0	12	0	0	0	0	3	10	1	1	3	2	1	
Discharges.....	977	641	2	467	76	89	336	3	1	0	0	0	1	1	182	4	2	0	0	1	63	0	65	5	5	3	
On rolls, June 30, 1953.....	7,382	6,076	74	5,557	89	326	1,306	271	2	2	5	57	17	17	145	3	3	4	24	113	292	34	119	53	10	135	
Changes in classification, fiscal year 1953.....	0	-88	0	-125	-6	+44	+88	0	0	0	0	0	0	0	+89	-1	0	0	0	0	0	0	-1	0	+1	0	
Adjusted on rolls, June 30, 1953.....	7,382	5,988	74	5,432	83	29	1,394	271	2	2	5	57	17	17	234	2	3	4	24	113	292	34	118	53	11	135	
On visit or elopement, June 30, 1953.....	269	250	0	238	2	10	19	1	0	0	0	0	0	0	6	0	0	0	0	1	10	0	0	0	0	1	
In hospital, June 30, 1953.....	7,113	5,738	74	5,194	81	29	1,375	270	2	2	5	57	17	17	228	2	3	4	24	112	282	34	118	53	11	134	

American Printing House for the Blind

AS THE official schoolbook printery for the blind in the United States, one of the principal functions of the American Printing House for the Blind, in Louisville, Ky., is the extension of its services to the schools and classes for the blind through the Federal act "To Promote the Education of the Blind." This act, originally passed in 1879, authorizes an annual appropriation to the Printing House to provide free school texts, tangible apparatus, and supplementary materials necessary in the education of the blind. Allocations of books and materials are made to the several schools on the basis of their enrollments. Only those pupils may be registered whose vision comes within the accepted definition of blindness as follows: "Central visual acuity of 20/200 or less in the better eye with correcting glasses, or a peripheral field so contracted that the widest diameter of such field subtends an angular distance no greater than 20° ."

The Printing House maintains large catalogs of Braille books, Talking Books, Braille music publications, large-type texts, and tangible apparatus. The schools for the blind are thereby provided with a rich collection of educational material from the kindergarten through high school. There are approximately 6,587 blind children enrolled in the residential and public school classes for the blind being served by the Printing House.

During the 1953 fiscal year, Braille books, educational periodicals, and music made up approximately 60.3 percent of the materials required by the schools; Braille slates, Braille writers, maps, and other mechanical devices about 12.5 percent; Talking Books about 6 percent; and large-type books about 18.9 percent. Approximately 2.3 percent was used for miscellaneous items.

Columbia Institution for the Deaf

THE COLUMBIA INSTITUTION for the Deaf is devoted to the education of deaf persons whose hearing is so impaired that they are unable to progress satisfactorily in schools and colleges for hearing students. The Institution is located in Washington, D. C., and is composed of four departments: Kendall School, Gallaudet College, the Graduate Department of Education, and the Research Department. Its aim is to promote the welfare and advancement of deaf persons through various educational means and through research.

KENDALL SCHOOL

This department provides education for the deaf child from pre-school age to college entrance. Its student body incorporates all deaf children from the District of Columbia and many from surrounding States. The oral method of instruction predominates, but when children cannot progress orally other methods may be used which will bring results. This past year the enrollment was 71, of whom 46 were from the District of Columbia.

GALLAUDET COLLEGE

This department was established in 1864 by act of Congress. A liberal arts and science course is offered students who qualify through entrance examinations. There is also a preparatory year for those who have not completed a full high-school course. This past year, students from 40 States, the District of Columbia, the Territory of Hawaii, and Canada were admitted, with a total of 244 in the student body.

The curriculum of the College is similar to that of any other American college which offers 4 years of work toward a bachelor's degree.

After two years of General Education the student may specialize in the work offered by any one of a number of Departments. Many of the graduates take up teaching positions in the various schools for the deaf and have been very successful in this field.

GRADUATE DEPARTMENT OF EDUCATION

This department trains hearing young men and women, college graduates, to teach the deaf. The course is 9 months. Its purpose is to furnish teachers and administrators in the deaf educational field in the 48 States. At present the demand for this type of personnel cannot be met from available sources. This past year 9 persons were enrolled in this department, 6 of whom were men.

RESEARCH DEPARTMENT

This department was created to meet the demand of schools for the deaf in the United States for some central point where research can be carried on for the advancement of the education of the deaf in the Nation. Its primary aim is to develop better techniques in the education of the deaf and hard-of-hearing child. During the past year analytical studies were made of psychological aspects of deafness and of the academic program carried by American schools for the deaf.

Howard University

HOWARD UNIVERSITY was chartered by Act of Congress on March 2, 1867. Located in the District of Columbia, the University operates an undergraduate college, a graduate school offering the master's degree, and eight professional schools, as follows: medicine, dentistry, pharmacy, engineering and architecture, music, social work, law and religion. (Religion receives no support from federal funds.)

ENROLLMENT OF STUDENTS

During the school year 1952-53 Howard University served 5,378 students as follows: 3,809 during the regular school year; 973 in the summer school and 596 in the evening school. The net total enrollment excluding all duplicates was 4,913 students, distributed as follows: 596 in the evening school and 4,317 in the ten regular schools and colleges, as follows: liberal arts, 2,249; graduate school, 320; engineering and architecture, 327; school of music, 277; school of social work, 99; college of medicine, 298; college of dentistry, 438; college of pharmacy, 169; school of law, 103; and school of religion, 37.

HIGHLY SIGNIFICANT SERVICE TO NEGRO STUDENTS

One of the major purposes of the founders of Howard University was the admittance of Negro youth, among others, to all of its educational offerings. The institution has pioneered in the offering of professional training to Negro youth in medicine, dentistry, pharmacy, engineering, architecture, law, music and social work, as well as in the teaching profession.

During the entire period of 88 years from 1865 to 1953, Howard University has been the only university of public support in the southern states which has offered to a substantial number of Negro youth

any approximation of the wide scope of undergraduate, graduate and professional studies characteristic of American state institutions. Since 1948, however, public institutions in 12 southern states, hitherto closed to Negroes, have little by little, opened their doors to Negro youth.

The national importance of Howard University as a trainer of Negro professional students is nowhere better illustrated than by reference to medicine and dentistry. If Meharry Medical College of Nashville, Tennessee, alone be excluded, the enrollment of medicine and dental students at Howard University in 1953 exceeded the enrollment of Negro students in all the other medical and dental schools in the United States. Howard University and Meharry Medical College have been the responsible pioneers in the development of medical education among Negroes; and, today, they constitute by far, the major source of Negro physicians, surgeons and dentists in America and in the world.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Of the net total of 4,317 students enrolled in the ten regular schools and colleges there were 4,277 who registered for degrees. Three thousand nine hundred sixty-six of these, or 92.7% came from 42 states and the District of Columbia, in continental United States, while 311 or 7.3% were students from countries outside of continental United States, including 27 foreign countries and four United States possessions.

The 3,966 students from the continental United States were distributed as follows:

New England States.....	89
Middle Atlantic States.....	632
East North Central States.....	230
West North Central States.....	91
South Atlantic States.....	2,363
East South Central States.....	292
West South Central States.....	244
Mountain States.....	5
Pacific States.....	20
	3,966

The 311 foreign students came from 27 countries and 4 United States possessions as follows: I. from five countries in Africa, 68; II. from six countries in Asia, 10; III. from Australia, 1; IV. from five countries in Europe, 8; V. from Canada, 1; VI. from nine countries in Central and South America and the British West Indies, 146; and VII. from four United States possessions, 33.

VETERANS

There were 578 veterans enrolled in Howard University during the school year 1952-53. Of this total 89 were Korean veterans. The enrollment of Korean veterans increased from 50 in the first semester to 89 in the second semester.

During the two semesters of the regular school year the veterans enrollment was distributed among the ten schools and colleges as follows: the graduate school, an average of 22 per semester; the college of liberal arts, an average of 247 per semester; in the school of engineering and architecture, an average of 66 per semester; the school of music, an average of 10 per semester; the school of social work, an average of 12 per semester; the college of medicine, an average of 34 per semester; the college of dentistry, an average of 52 per semester; the college of pharmacy, an average of 36 per semester; the school of law, an average of 28 per semester; and the school of religion, an average of 3 per semester.

The relationship of the veterans to the total average enrollment in these colleges ranged from a minimum of four-tenths of one per cent in music to a maximum of 32 per cent in law. During the two regular semesters of the school year they constituted an average of 15.5 per cent of the total average enrollment of the ten regular schools and colleges, and 12 per cent of the total enrollment of the University for the entire year.

ARMY AND AIR RESERVE OFFICERS' TRAINING CORPS

Army Reserve Officers' Training Corps.—An average of 233 students were enrolled in the Army Reserve Training Corps, during the school year 1952-53. One hundred thirty of these were enrolled in the first and second year basic army courses and an average of 103 in the first and second year of advanced army courses.

Forty-nine students completed the Army R. O. T. C. requirements at Howard University during the year 1952-53. Twenty-nine were commissioned Second Lieutenants of the United States Army Reserve. Nine others were scheduled to receive commissions as Second Lieutenants of the United States Army upon the completion of summer camp training. The remaining 11 were scheduled to be commissioned upon completion of their four years of college level academic work.

Air Force Reserve Officers' Training Corps.—An average of 417 students were enrolled in the Air Force Reserve Officers' Training Corps during the school year 1952-53. Of these an average of 278 were enrolled in the first and second year basic courses; 121 were enrolled in the first and second year advanced courses; and an average of 18 in the accelerated courses.

Sixty-five students completed the Air Force R. O. T. C. course during the school year 1952-53. Of these 30 were commissioned as Second Lieutenants in the Air Force Reserve Officers' Corps on the fifth of June 1953. Twenty-three others were scheduled to be commissioned as Second Lieutenants upon the completion of summer camp. Three were scheduled to be commissioned during the month of August upon completion of courses in summer school. The remaining 9 were scheduled to be commissioned upon the completion of their academic requirements for the bachelor's degree.

FACULTY

The University was served during the year 1953 by 438 regular teachers. 262 of these were giving their full time to the University, while 176 were serving in various part-time capacities. All together they made a total full-time equivalent teaching force of 308.74. Of this total 281.82 were in the rank of instructor and above while 27.12 were below the rank of instructor.

Forty-eight of the 176 part-time teachers served the University without compensation.

COMPOSITION OF THE FACULTY

The faculty of Howard University is composed of Negroes and whites, northerners and southerners, Jews and Gentiles, Protestants and Catholics, persons from Europe and Asia, North, Central and South America, and from Africa.

From the beginning of its work in 1867 it was a major purpose of the founders of Howard University to employ Negro teachers, among others, on every faculty. Today the Negro members of the professional faculties of Howard University, exclusive of religion, constitute together a group of Negro professional teachers larger by far than all the Negroes so employed in all other American universities combined. The existence of this group of Negro university teachers at Howard University has been a standing inspiration to the Negro people for more than three-quarters of a century, and membership on one of these faculties has been the first employment of many of the most outstanding Negroes in the public life of America.

TWO OUTSTANDING EVENTS OF NATIONAL SIGNIFICANCE

There were two developments of national significance at Howard University, during the school year 1953. The first was the completion and initial use of the new building for Engineering and Architecture. The second was the admittance of the College of Liberal Arts to membership in Phi Beta Kappa, the Honorary Scholastic Fraternity.

NEW ENGINEERING AND ARCHITECTURE BUILDING

During the school year 1953 the School of Engineering and Architecture entered a new and modern building, erected by the Government of the United States at a total cost of \$2,161,340.

The new School of Engineering and Architecture building is designed to accommodate as many as 400 full-time students approximately evenly distributed among the four present degree-granting departments of civil, electrical and mechanical engineering and architecture.

The laboratories of each department were designed by members of the departmental staff thereof. They represent careful planning over a period of more than ten years, including studies, surveys, inspection visits to more than forty representative schools of engineering and architecture, and especially selected visits to study special features. Critical review of the final plans was made by representatives of the United States Office of Education and the American Society for Engineering Education including Lamme Medalist and Professor Emeritus Alexander Graham Christie of Johns Hopkins University, Dean S. S. Steinberg of the University of Maryland, Dean Emeritus Frederick M. Feiker, George Washington University, and Walter A. Taylor, Director of Education and Research, American Institute of Architects.

This was the first modern building ever erected on the soil of the former slave states for an accredited school of engineering and architecture attended heavily by Negro students. The 327 students of engineering and architecture served in this building during 1953 included the largest body of Negro students of engineering and architecture in the United States. Their number exceeded the total enrollment of Negro engineering and architecture students in all accredited schools of engineering and architecture, public and private, in all the southern states.

ENGINEERING AND ARCHITECTURE BUILDING RECEIVES DISTINGUISHED ARCHITECTURAL AWARD

The new building for engineering and architecture was selected by the Washington Board of Trade to receive one of its distinguished biennial awards in architecture. The Board of Trade commended this building as being "of superior design among the buildings erected in the year 1951-52," awarded a "Diploma of Merit" to the owner, the builder and the architect, and indicated that it made this award in acknowledgement of the benefit of such superior architecture in the City of Washington.

PHI BETA KAPPA

The outstanding event of the year in the college of liberal arts was the installation of Gamma Chapter of the District of Columbia of Phi Beta Kappa, the Honorary Scholastic Fraternity.

Howard University was among the nine new colleges admitted to membership in Phi Beta Kappa, the Honorary Scholastic Fraternity, at their recent triennial convention held at the University of Kentucky, Louisville, Kentucky. This action authorized the installation of a chapter of Phi Beta Kappa at Howard University as Gamma chapter of the District of Columbia—the Alpha and Beta chapters being George Washington and the Catholic Universities. This recognition, coming after both national and regional inspection of the institution's curriculum, faculty standing, scholastic performance, and plant facilities, is notable, along with the similar acceptance of Fisk University, as the first such recognition of Negro colleges by Phi Beta Kappa. Noteworthy also was the sponsorship of the George Washington and Catholic Universities chapters, which will now become sister chapters, and the unanimous endorsement of the South Atlantic Phi Beta Kappa colleges at a regional conference held last fall at Davidson College, North Carolina.

Participating in the inauguration of the Gamma Chapter of Phi Beta Kappa at Howard University were representatives of the original chapter at William and Mary College of Virginia and of other distinguished institutions of learning in the South and North. Together they united in a reverent and glad expression of esteem for the high intellectual and spiritual possibilities of the Negro people and placed their joint approval upon the eleven seniors at Howard and two juniors, to constitute the first student members of the honor fraternity. The founders of Howard University would have rejoiced to see this day.

GRADUATES

During the school year 1952–53 Howard University graduated 616 students from its 10 schools and colleges. These graduates were distributed among the schools and colleges as follows: liberal arts, 259; engineering and architecture, 46; music, 33; medicine, 67; dentistry, 46; dental hygiene, 7; pharmacy, 25; law, 26; religion, 9; graduate school, 68.

The University also awarded three honorary degrees.

From the beginning of its work, until the end of 1953, Howard University has graduated a total of 17,621 persons. These graduates are at work in 42 states and 24 foreign countries. In every population center in the United States they constitute a cross section of the leader-

ship of the Negro people. Together these graduates constitute the largest and most diversified group of trained Negro public servants related to any single institution in the world. In the eight professions of medicine, dentistry, pharmacy, engineering, architecture, music, law and social work they include a body of Negro professional graduates larger than the output of all other universities of public and private support combined, in all the southern states.

SERVICE TO FOREIGN STUDENTS AND IN FOREIGN COUNTRIES

Howard University has developed a far-reaching service to foreign students. Foreign students are now enrolled from 31 foreign countries. It ranks third among American universities in the percentage of foreign students enrolled.

Howard University students and teachers have associated daily with teachers and students representative of every race and color, and many of the creeds of the world. They have learned by experience that the common country of the trustable human heart crosses and transcends all these boundaries of external differences, and they are habituated to a friendly interest in human beings everywhere. In recent years many of these teachers and students, as individuals and in groups, have traveled on missions to many countries in Europe, Asia and Africa. Wherever they have gone, they have imparted goodwill and friendship and they have found goodwill and friendship in return.

Again and again the responsible leaders in Government and the friends of America have acknowledged their services as being of the highest value to their country and to the cause of democracy in the world.

Appendix Tables

Appendix Tables

Table 1.—Grants to States: Total grants under all Department of Health, Education, and Welfare programs, fiscal year 1953¹

States, Territories, and possessions	Total	Social Security Administration ²	Public Health Service ²	Office of Education ²	Office of Vocational Rehabilitation	American Printing House for the Blind
Total	\$1,745,777,343	\$1,361,436,602	\$147,158,086	\$214,753,562	\$22,244,093	\$185,000
Alabama	38,350,106	28,171,034	4,051,307	5,522,786	598,358	6,621
Arizona	13,270,472	8,483,979	1,058,796	3,623,193	103,454	1,050
Arkansas	33,049,650	23,486,025	3,788,695	5,430,852	340,461	3,617
California	189,735,335	151,474,193	6,152,039	30,513,234	1,585,690	10,179
Colorado	32,214,764	27,321,216	832,110	3,895,727	163,669	2,042
Connecticut	13,499,206	8,583,625	1,113,861	3,504,418	295,144	2,158
Delaware	2,016,130	1,321,714	302,759	230,975	160,682	—
District of Columbia	4,732,197	3,620,485	842,695	83,755	175,000	262
Florida	41,541,354	32,919,220	3,279,897	4,605,596	734,308	2,333
Georgia	58,281,836	40,095,280	4,986,537	11,920,485	1,274,634	4,900
Idaho	6,848,256	4,758,524	210,191	1,819,471	59,458	612
Illinois	74,670,325	60,186,572	7,651,730	5,700,875	1,123,098	8,050
Indiana	27,572,407	18,114,010	5,889,913	3,177,197	387,816	3,471
Iowa	26,196,934	22,430,259	2,072,370	1,408,545	282,318	3,442
Kansas	24,240,820	17,383,403	1,668,492	4,953,682	233,318	1,925
Kentucky	36,972,344	27,049,108	5,954,438	3,817,363	147,789	3,646
Louisiana	80,750,738	72,890,653	4,686,149	2,623,873	546,213	3,850
Maine	8,570,980	7,458,787	380,573	629,655	101,965	—
Maryland	18,605,906	9,732,109	1,642,079	6,978,258	249,989	3,471
Massachusetts	55,790,308	50,961,269	3,230,295	1,342,220	249,203	7,321
Michigan	62,344,620	49,756,883	3,880,212	7,678,762	1,020,159	8,604
Minnesota	31,672,738	25,488,431	4,859,643	1,005,704	314,789	4,171
Mississippi	25,833,903	20,058,033	2,651,611	2,672,229	448,705	3,325
Missouri	70,491,952	63,448,786	2,703,091	3,895,356	440,577	4,142
Montana	8,099,844	6,190,036	616,893	1,153,859	138,444	612
Nebraska	11,489,600	8,879,941	1,144,459	1,272,145	192,008	1,137
Nevada	3,421,019	1,297,898	179,737	1,915,850	27,534	—
New Hampshire	4,577,241	3,789,167	194,522	541,588	51,964	—
New Jersey	19,239,576	11,970,626	3,935,542	2,913,090	414,076	6,242
New Mexico	11,733,784	7,646,326	745,658	3,240,040	99,660	2,100
New York	118,804,867	105,509,566	7,823,928	4,009,041	1,447,487	14,845
North Carolina	36,318,061	25,089,583	6,305,262	4,089,906	823,219	10,091
North Dakota	6,016,861	4,749,106	631,698	543,852	91,330	891
Ohio	62,894,710	49,417,164	6,597,379	6,415,396	455,817	8,954
Oklahoma	60,061,475	52,511,655	1,232,869	5,838,263	476,180	2,508
Oregon	13,819,568	10,860,494	1,112,999	1,558,973	285,265	1,837
Pennsylvania	60,056,879	46,770,487	7,424,528	4,240,503	1,608,790	12,571
Rhode Island	7,474,771	6,079,636	460,163	825,482	109,490	—
South Carolina	27,245,175	17,363,825	3,653,540	5,730,780	494,376	2,654
South Dakota	7,811,479	6,177,371	688,214	870,811	74,062	1,021
Tennessee	41,209,474	31,319,060	5,302,287	3,934,033	649,719	4,375
Texas	105,641,159	82,291,739	8,110,235	14,264,200	967,827	7,058
Utah	9,555,351	6,740,661	589,865	2,104,752	119,111	962
Vermont	3,824,588	2,906,219	264,856	372,158	91,355	—
Virginia	27,323,947	11,064,068	3,049,608	12,697,967	506,850	5,454
Washington	45,240,539	31,775,728	1,276,274	11,650,140	535,672	2,625
West Virginia	26,939,541	21,292,696	4,567,906	558,207	517,990	2,742
Wisconsin	26,285,156	22,224,196	2,598,188	955,332	502,511	4,929
Wyoming	3,449,739	2,587,499	438,070	339,162	85,008	—
Alaska	4,198,113	1,575,151	269,085	2,316,850	37,027	—
Hawaii	6,796,047	3,806,180	533,133	2,317,725	138,630	3,379
Puerto Rico	8,623,004	3,968,963	3,368,168	1,018,142	265,894	1,837
Virgin Islands	372,404	297,963	53,337	21,104	—	—

¹ On a checks-issued basis.² For detailed figures by programs, see tables 2, 3, and 4.³ Includes grants to Universities and local units, for details, see table 3

Table 2.—Grants to States: Social Security Administration, fiscal year 1953¹

States, Territories, and possessions	Total	Old-age assistance	Aid to dependent children	Aid to the blind	Aid to the permanently and totally disabled	Maternal and child health services	Services for crippled children	Child welfare services
Total.....	\$1,361,436,602	\$899,398,252	\$338,549,221	\$52,698,872	\$59,317,125	\$13,299,919	\$11,814,776	\$6,388,437
Alabama.....	28,171,034	17,250,248	7,060,983	405,275	2,250,156	506,347	454,172	243,853
Arizona.....	8,483,979	5,345,116	2,672,707	279,342	151,110	136,014	342,000	50,800
Arkansas.....	23,486,025	15,589,368	6,344,178	605,768	151,110	272,357	375,474	181,244
California.....	151,474,193	109,929,891	35,613,948	4,811,123	1,645,261	515,709	109,737	228,048
Colorado.....	27,321,216	21,202,720	3,931,422	149,176	1,645,261	207,881	175,766	75,019
Connecticut.....	8,583,625	5,500,792	2,578,436	116,042	43,680	142,484	45,840	70,105
Delaware.....	1,321,714	523,924	2,486,630	87,689	562,013	92,107	151,150	41,544
District of Columbia.....	3,620,455	1,039,075	1,575,532	90,289	562,013	172,651	220,344	30,775
Florida.....	32,919,220	22,558,981	8,595,706	1,159,648	1,178,116	279,275	449,963	107,266
Georgia.....	40,005,280	28,980,697	7,819,389	1,021,222	1,178,116	492,727	84,875	153,226
Idaho.....	4,758,524	3,098,650	1,172,950	63,436	285,419	91,614	328,832	21,580
Illinois.....	60,136,572	39,083,280	17,056,880	1,594,000	1,632,152	327,737	131,854	178,592
Indiana.....	18,114,010	12,189,945	4,873,819	578,768	1,632,152	262,641	292,243	76,953
Iowa.....	22,430,239	17,353,173	3,983,879	54,533	1,055,082	123,797	136,515	169,612
Kansas.....	17,383,403	13,238,698	2,465,800	295,213	1,055,082	143,590	413,292	116,435
Kentucky.....	27,049,108	15,023,275	10,262,287	702,259	5,508,046	402,701	288,573	245,884
Louisiana.....	72,890,653	51,785,735	14,038,388	743,316	5,508,046	347,058	300,874	179,437
Maine.....	7,458,787	4,300,114	2,602,012	136,346	1,237,494	104,488	292,182	76,173
Maryland.....	9,732,109	3,694,627	3,870,346	176,871	3,021,099	374,868	206,773	86,721
Massachusetts.....	50,961,269	38,045,139	8,579,943	697,508	595,025	316,257	409,059	91,570
Michigan.....	49,756,833	31,670,487	15,733,873	722,222	595,025	401,503	218,272	223,734
Minnesota.....	25,438,431	19,280,498	5,140,173	456,073	297,336	321,094	375,280	162,321
Mississippi.....	20,038,033	15,014,393	3,028,798	837,802	4,631,005	277,304	306,063	277,139
Missouri.....	63,448,786	46,692,751	10,510,343	903,584	4,631,005	254,778	128,630	180,262
Montana.....	6,190,036	3,817,408	1,416,807	196,057	451,097	113,734	89,045	65,703
Nebraska.....	8,879,941	6,719,198	1,691,391	264,342	7,590	94,465	73,840	21,500
Nevada.....	1,297,898	1,113,002	896,043	7,590	37,040	73,840	100,127	32,581
New Hampshire.....	3,789,167	2,520,385	3,246,874	113,640	625,812	179,710	146,469	51,905
New Jersey.....	11,970,626	7,384,123	3,008,929	315,285	661,215	111,262	100,515	72,353
New Mexico.....	7,646,326	3,552,531	3,008,929	138,648	661,215	111,262	100,515	73,226

New York	105,509,566	48,827,079	38,427,629	2,081,555	15,234,311	406,316	354,349	118,327
North Carolina	25,089,583	12,370,249	8,281,784	1,410,029	1,529,622	622,929	328,493	337,477
North Dakota	4,749,106	3,131,783	1,956,311	44,910	283,724	92,662	85,434	15,207
Ohio	40,417,184	38,813,193	17,955,311	1,502,966	2,193,291	441,425	413,881	95,124
Oklahoma	52,511,655	37,893,150	11,483,121	691,444	1,510,191	184,629	201,205	150,015
Oregon	10,860,494	7,615,924	2,050,253	137,214	803,357	112,707	118,238	53,699
Pennsylvania	46,770,487	21,913,227	18,817,243	2,742,487	2,872,883	626,874	320,814	277,959
Rhode Island	6,079,636	3,461,511	2,146,628	76,307	182,697	95,905	74,894	41,634
South Carolina	17,363,825	11,689,655	2,873,169	503,460	1,659,988	267,787	288,290	109,476
South Dakota	6,177,371	4,038,537	1,691,330	71,657	124,900	83,305	91,061	76,561
Tennessee	31,319,080	18,695,500	10,476,984	1,000,404	520,570	383,846	241,756	244,579
Texas	82,291,739	69,276,120	9,520,019	2,000,096	609,226	611,399	117,061	61,296
Utah	6,740,681	3,709,110	1,962,468	89,793	628,210	120,693	100,028	55,426
Vermont	2,096,210	2,027,317	658,826	54,870	77,137	87,615	375,133	167,139
Virginia	11,094,068	4,427,798	4,253,769	407,543	1,087,267	362,359	149,804	116,770
Washington	11,775,798	22,968,809	5,779,210	325,915	2,145,205	193,015	210,855	189,264
West Virginia	21,292,606	7,432,777	11,851,874	394,303	1,486,648	236,975	288,074	180,751
Wisconsin	22,224,166	15,674,417	5,014,574	469,566	403,979	192,835	57,048	32,867
Wyoming	2,587,499	1,752,782	402,104	38,343	194,706	109,649	109,718	35,616
Alaska	1,575,151	651,288	576,328	29,620	112,581	152,960	151,914	34,622
Hawaii	3,808,180	701,721	2,334,945	40,286	384,732	490,927	378,867	196,654
Puerto Rico	3,098,963	1,373,507	1,226,998	39,080	358,930	79,214	79,532	32,176
Virgin Islands	297,963	61,690	36,785	3,577	4,989			

1 On a check¹ issued basis.

Table 3.—Grants to States: Public Health Service, fiscal year 1953¹

States, Territories, and possessions	Total	Venereal disease control	Tuberculosis control	General health
Total.....	\$147,158,086	± \$7,162,266	\$5,300,000	\$12,999,970
Alabama.....	4,051,307	301,508	125,595	399,716
Arizona.....	1,058,796	65,719	57,204	95,491
Arkansas.....	3,788,695	146,322	87,634	251,806
California.....	6,152,039	150,838	288,454	665,411
Colorado.....	832,110	46,423	44,487	128,377
Connecticut.....	1,113,861	35,195	74,781	125,187
Delaware.....	302,759	17,191	19,839	22,700
District of Columbia.....	842,695	136,909	49,198	47,731
Florida.....	3,279,897	417,626	113,666	265,679
Georgia.....	4,986,537	505,318	163,097	402,814
Idaho.....	210,191	36,459	17,070	75,857
Illinois.....	7,651,730	285,167	259,683	533,165
Indiana.....	5,889,913	102,542	103,743	293,359
Iowa.....	2,072,370	53,966	46,407	208,207
Kansas.....	1,608,492	36,238	56,143	169,917
Kentucky.....	5,954,438	190,734	146,790	345,000
Louisiana.....	4,686,149	432,032	106,502	296,938
Maine.....	380,573	15,362	28,671	97,157
Maryland.....	1,642,079	128,703	105,810	170,538
Massachusetts.....	3,230,295	46,259	172,100	312,984
Michigan.....	3,880,212	142,908	172,624	446,773
Minnesota.....	4,859,643	25,464	76,514	247,469
Mississippi.....	2,651,611	396,052	119,824	340,088
Missouri.....	2,703,091	187,058	125,840	317,423
Montana.....	616,893	17,709	22,180	68,205
Nebraska.....	1,144,459	25,898	30,515	128,264
Nevada.....	179,737	21,155	10,384	37,971
New Hampshire.....	194,522	12,025	16,474	49,984
New Jersey.....	3,935,542	78,638	133,847	309,276
New Mexico.....	745,658	35,540	39,599	96,653
New York.....	7,823,928	310,427	430,585	824,707
North Carolina.....	6,305,262	318,580	155,359	472,889
North Dakota.....	631,698	25,284	37,442	75,147
Ohio.....	6,597,379	178,656	229,899	550,033
Oklahoma.....	1,232,869	100,689	81,866	222,693
Oregon.....	1,112,999	25,893	48,444	137,604
Pennsylvania.....	7,424,528	242,420	269,536	756,303
Rhode Island.....	460,163	14,867	29,216	55,867
South Carolina.....	3,653,540	249,006	114,565	274,222
South Dakota.....	688,214	17,800	22,517	77,223
Tennessee.....	5,202,287	214,846	153,840	354,179
Texas.....	8,110,335	624,146	193,296	692,088
Utah.....	589,865	16,640	18,198	86,322
Vermont.....	364,856	14,228	17,811	45,282
Virginia.....	3,049,608	168,519	154,015	326,592
Washington.....	1,276,374	29,802	67,074	172,236
West Virginia.....	4,567,906	112,903	71,450	203,010
Wisconsin.....	2,598,188	24,910	67,480	258,905
Wyoming.....	438,070	15,253	11,885	48,661
Alaska *.....	269,085	17,246	67,489	48,631
Hawaii.....	533,133	16,512	48,709	44,060
Puerto Rico.....	3,368,168	316,211	191,268	317,320
Virgin Islands.....	53,337	14,464	9,381	5,856

See footnotes at end of table.

Table 3.—Grants to States: Public Health Service, fiscal year 1953¹—Con.

States, Territories, and possessions	Mental health activities	Heart disease activities	Cancer activities	Industrial waste studies	Hospital construction, survey, and planning
Total.....	\$3,049,736	² \$3,033,844	³ \$5,196,439	⁵ \$1,113,416	\$109,302,421
Alabama.....	71,634	46,637	72,894	-----	3,033,323
Arizona.....	5,786	2,000	13,155	-----	819,441
Arkansas.....	32,944	24,553	50,258	-----	3,195,178
California.....	180,602	69,592	⁴ 719,622	⁶ 57,555	4,019,965
Colorado.....	25,602	⁴ 49,452	31,521	-----	506,248
Connecticut.....	34,178	22,404	⁴ 52,337	-----	769,779
Delaware.....	19,911	12,445	5,487	-----	205,186
District of Columbia.....	19,286	14,464	⁴ 164,299	-----	410,808
Florida.....	57,603	34,436	58,946	-----	2,331,941
Georgia.....	77,373	47,082	79,977	⁶ 119,385	3,591,491
Idaho.....	20,021	15,146	17,608	-----	28,030
Illinois.....	147,280	³ 445,101	147,140	⁶ 103,258	5,730,936
Indiana.....	64,104	28,600	³ 194,272	⁶ 181,232	4,922,061
Iowa.....	49,120	20,043	55,031	-----	1,639,596
Kansas.....	34,029	24,682	38,419	-----	1,309,064
Kentucky.....	66,391	41,591	71,161	-----	5,092,771
Louisiana.....	57,220	³ 325,153	56,507	-----	3,411,797
Maine.....	17,513	5,000	20,493	-----	196,377
Maryland.....	43,620	16,196	38,453	-----	1,138,759
Massachusetts.....	87,597	35,068	94,855	-----	2,481,432
Michigan.....	117,977	40,262	³ 153,094	-----	2,806,574
Minnesota.....	57,341	³ 247,748	³ 460,060	-----	3,751,047
Mississippi.....	55,040	40,737	64,680	-----	1,635,190
Missouri.....	73,943	37,248	82,634	-----	1,878,945
Montana.....	20,021	14,568	17,290	-----	456,920
Nebraska.....	14,474	10,816	25,570	-----	908,922
Nevada.....	9,894	6,536	6,547	-----	87,250
New Hampshire.....	19,583	11,073	-----	-----	85,383
New Jersey.....	89,978	37,735	73,496	-----	3,212,572
New Mexico.....	18,594	5,110	6,685	-----	543,477
New York.....	264,005	³ 582,749	³ 680,606	-----	4,730,849
North Carolina.....	81,258	32,078	59,535	⁶ 129,000	5,056,563
North Dakota.....	20,021	15,158	17,926	-----	440,720
Ohio.....	150,667	60,721	³ 471,031	⁷ 6,000	4,950,372
Oklahoma.....	45,685	29,108	46,402	⁷ 1,201	705,225
Oregon.....	28,156	13,592	21,460	⁷ 1,500	836,350
Pennsylvania.....	201,103	³ 324,359	³ 243,845	-----	5,386,962
Rhode Island.....	20,013	-----	16,014	-----	324,186
South Carolina.....	49,411	21,332	50,076	⁶ 419,811	2,475,117
South Dakota.....	18,871	11,348	11,207	-----	529,248
Tennessee.....	67,947	42,381	³ 181,577	-----	4,287,517
Texas.....	157,021	-----	³ 248,378	⁶ 82,952	6,112,454
Utah.....	18,628	9,350	15,799	-----	424,928
Vermont.....	10,599	12,515	11,561	-----	253,060
Virginia.....	69,761	5,000	31,000	-----	2,294,721
Washington.....	44,289	25,648	43,407	⁷ 2,874	891,044
West Virginia.....	41,128	27,331	43,489	-----	4,088,595
Wisconsin.....	65,311	27,857	56,915	⁷ 8,648	2,088,162
Wyoming.....	7,073	4,724	11,458	-----	339,016
Alaska ⁸	19,089	5,200	-----	-----	111,430
Hawaii.....	19,389	14,146	9,749	-----	380,568
Puerto Rico.....	42,416	34,868	51,214	-----	2,414,871
Virgin Islands.....	19,236	3,101	1,299	-----	-----

¹ On a checks-issued basis.² Includes \$748,679 in cash, supplies and services for rapid treatment facilities and \$2,897,194 in cash, supplies, and services for venereal disease special projects.³ Includes grants to universities and local units. Does not include funds for federally operated center in Hot Springs, Ark.⁴ Does not include funds paid for special control projects.⁵ This amount represents \$1,093,193 for construction of community facilities in defense areas and \$20,223 for industrial waste studies.⁶ Payment for construction of community facilities in defense areas.⁷ Payment for industrial waste studies.⁸ An additional amount of \$537,000 was paid to Alaska for disease and sanitation investigation and control activities.

Table 4.—Grants to States: Office of Education, fiscal year 1953¹

States, Territories, and possessions	Total	Colleges for agriculture and the mechanic arts	Cooperative vocational education	Survey and school construction	Maintenance and operation of schools
Total.....	\$214,753,562	\$5,030,000	\$25,420,754	² \$118,308,139	³ \$65,994,669
Alabama.....	5,522,786	100,111	670,987	3,695,279	1,056,409
Arizona.....	3,623,193	77,070	169,933	2,599,371	776,819
Arkansas.....	5,430,852	88,629	491,667	3,905,429	945,127
California.....	30,513,234	175,094	1,019,432	14,223,724	15,094,984
Colorado.....	3,895,727	82,805	419,779	1,754,649	1,638,494
Connecticut.....	3,504,418	89,603	248,176	2,326,538	840,101
Delaware.....	230,975	72,770	158,211	-----	-----
District of Columbia.....	93,755	-----	93,755	-----	-----
Florida.....	4,605,596	97,216	393,202	2,966,875	1,148,303
Georgia.....	11,920,485	103,926	720,644	7,909,746	3,186,169
Idaho.....	1,819,471	75,466	153,646	1,346,574	243,785
Illinois.....	5,700,875	156,419	1,098,786	3,064,601	1,881,069
Indiana.....	3,177,197	108,805	655,676	1,672,648	740,068
Iowa.....	1,408,545	95,719	555,178	548,171	209,477
Kansas.....	4,953,682	88,587	306,801	1,851,098	2,647,196
Kentucky.....	3,817,363	98,945	678,348	1,425,849	1,614,221
Louisiana.....	2,623,873	96,342	491,851	1,847,348	188,332
Maine.....	629,655	78,706	156,609	60,906	333,434
Maryland.....	6,978,258	92,948	311,936	5,342,279	1,231,095
Massachusetts.....	1,342,220	116,342	499,931	57,646	668,301
Michigan.....	7,678,762	133,096	889,109	5,770,032	886,525
Minnesota.....	1,005,704	99,321	571,955	284,330	50,098
Mississippi.....	2,672,229	91,313	614,337	1,451,422	515,157
Missouri.....	3,895,356	109,009	695,773	2,268,835	821,739
Montana.....	1,153,859	75,490	167,075	671,546	239,748
Nebraska.....	1,272,145	82,809	287,991	247,179	654,166
Nevada.....	1,915,850	71,195	111,086	1,222,027	510,642
New Hampshire.....	541,588	74,914	152,492	-----	314,182
New Jersey.....	2,913,090	117,785	500,499	1,252,981	1,041,825
New Mexico.....	3,240,040	76,388	166,829	2,430,909	565,914
New York.....	4,009,041	217,386	1,561,324	1,430,124	800,207
North Carolina.....	4,089,906	110,078	958,134	2,290,523	731,171
North Dakota.....	543,852	75,775	204,547	74,975	189,555
Ohio.....	6,415,396	148,790	1,109,584	3,096,957	2,060,065
Oklahoma.....	5,838,263	91,856	438,879	2,889,012	2,418,516
Oregon.....	1,558,973	84,760	263,330	805,587	405,296
Pennsylvania.....	4,240,503	174,215	1,359,966	1,688,753	1,017,569
Rhode Island.....	825,482	77,491	100,529	98,472	548,990
South Carolina.....	5,730,780	90,696	492,257	4,189,151	968,676
South Dakota.....	870,811	76,105	201,526	133,679	459,501
Tennessee.....	3,934,033	102,403	715,420	2,843,418	272,792
Texas.....	14,264,200	146,444	1,248,752	7,690,084	5,178,920
Utah.....	2,104,752	76,466	165,983	1,119,978	742,325
Vermont.....	372,158	73,364	155,887	97,542	45,365
Virginia.....	12,697,967	102,671	643,318	7,144,491	4,807,487
Washington.....	11,650,140	93,307	362,316	8,516,190	2,678,327
West Virginia.....	558,207	89,586	414,354	5,581	48,686
Wisconsin.....	955,332	103,826	615,079	40,345	196,082
Wyoming.....	339,162	72,495	158,654	-----	108,013
Alaska.....	2,316,850	70,882	-----	1,306,675	939,293
Hawaii.....	2,317,725	74,581	158,654	636,811	1,447,679
Puerto Rico.....	1,018,142	50,000	558,563	12,799	396,780
Virgin Islands.....	21,104	-----	21,104	-----	-----

¹ On a checks-issued basis.² Does not include \$9,885,864 paid to Housing and Home Finance.³ Includes funds paid Army and Navy to be applied to State projects.

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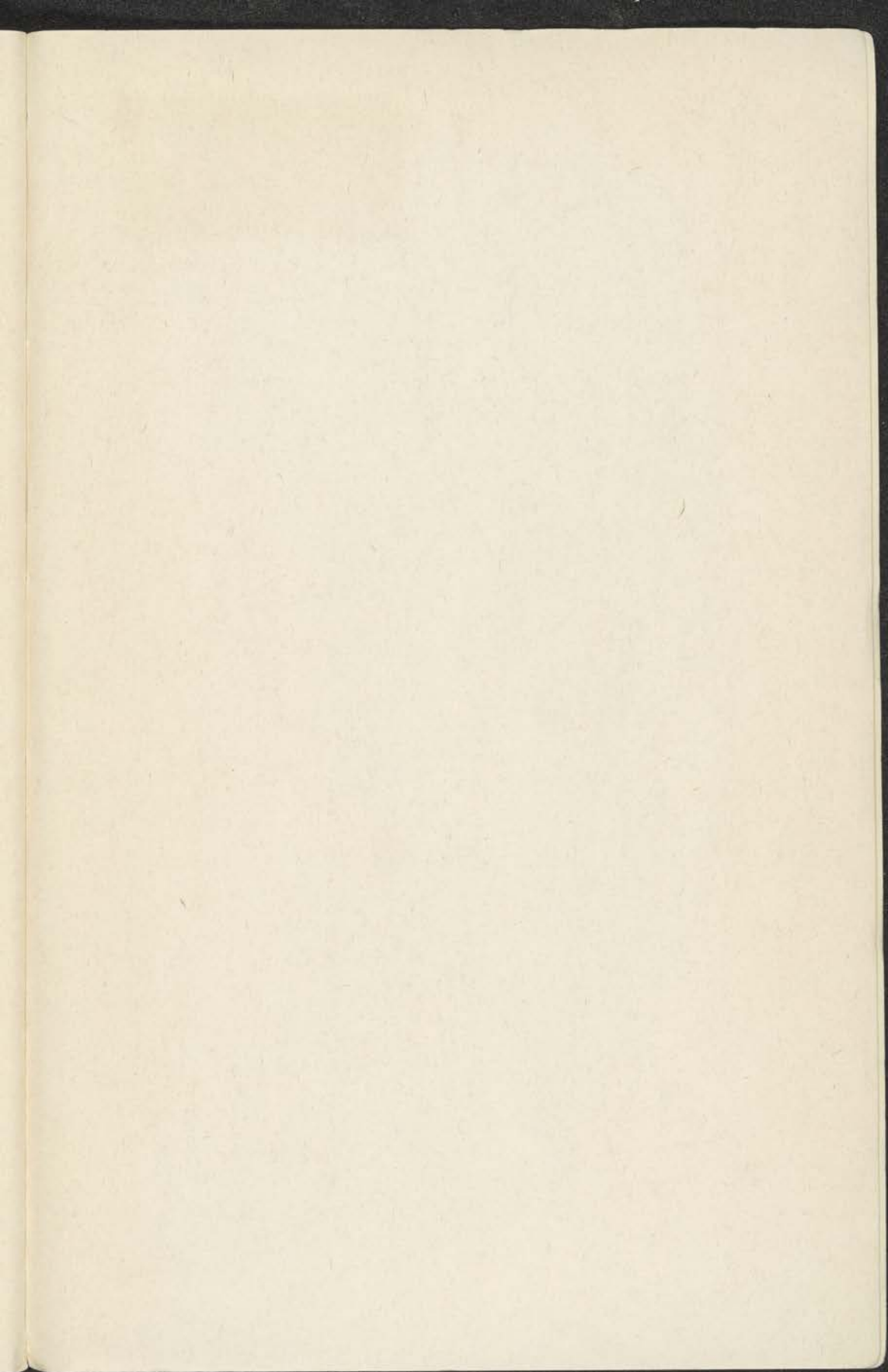
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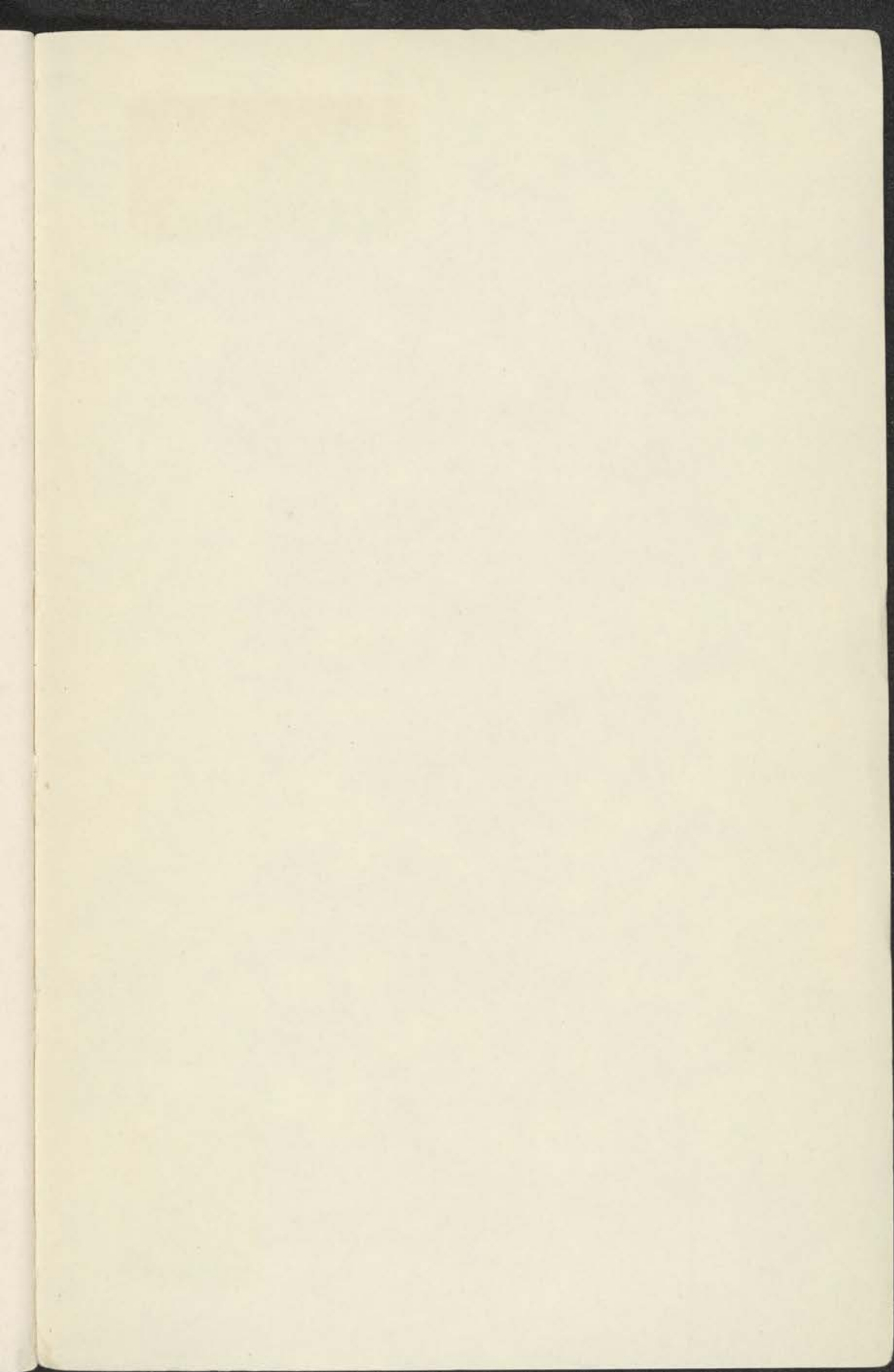
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