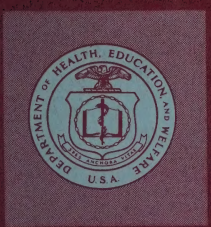
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Annual Report of the

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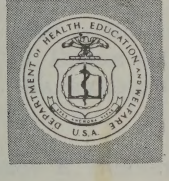
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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

As of June 30, 1959

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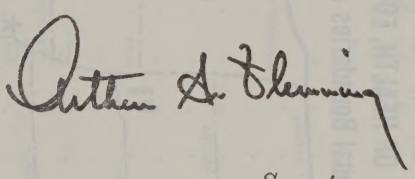
Letter of Transmittal

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,

Washington, D.C., December 1, 1959.

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, 1959.

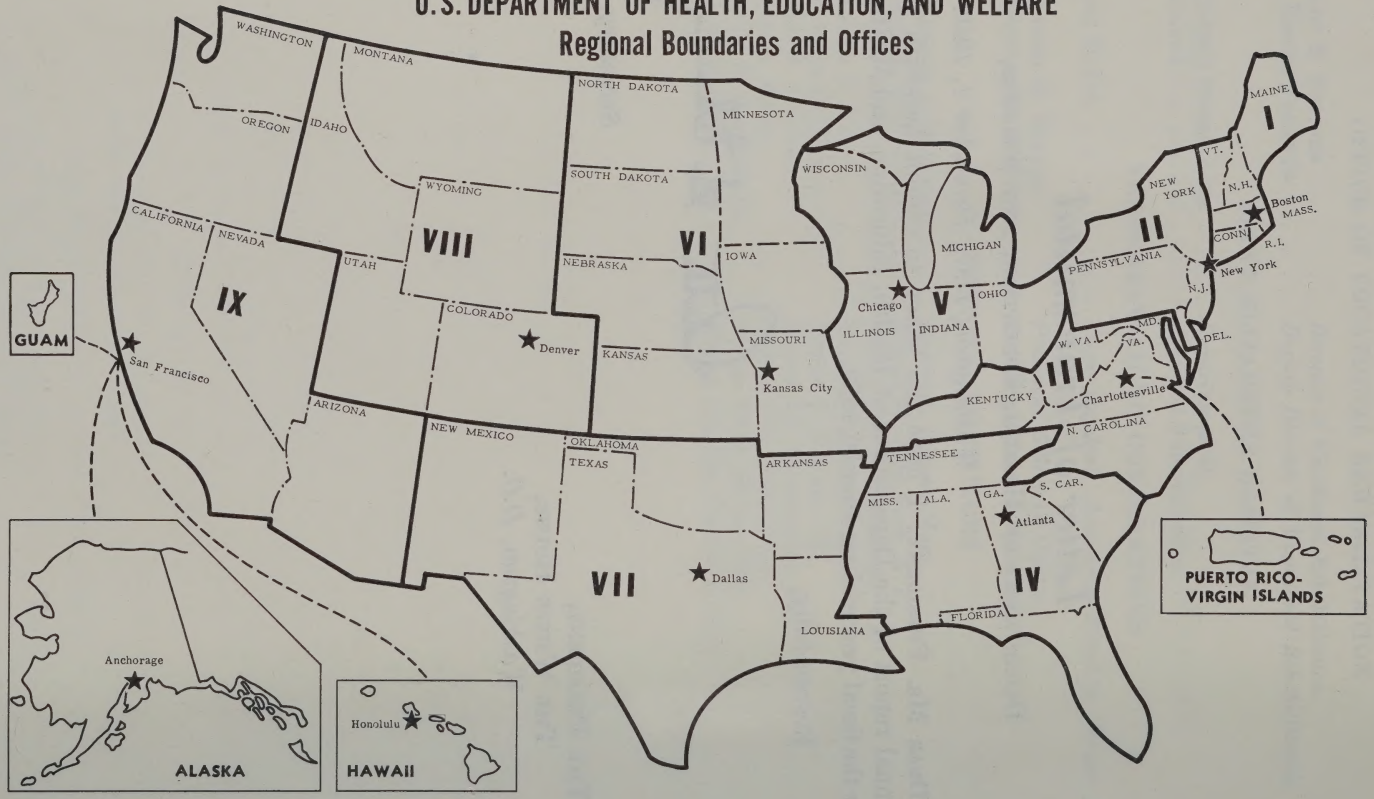
Respectfully,



Secretary.

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

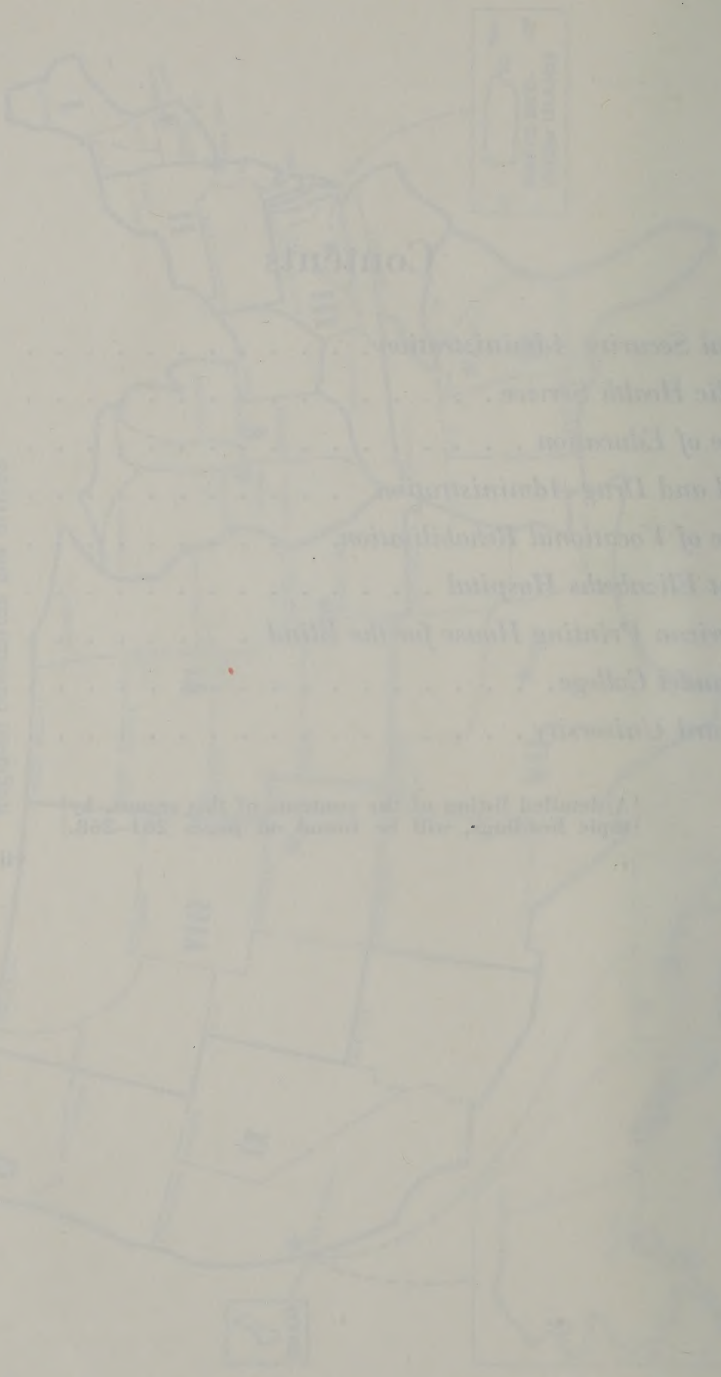
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Regional Boundaries and Offices



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A detailed listing of the contents of this report, by topic headings, will be found on pages 261–268.



Social Security Administration

Social Security in 1959

Implementation of significant amendments to the Social Security Act that were signed into law by President Eisenhower on August 28, 1958, highlighted program developments in fiscal year 1959. Programs were reviewed and evaluated in the light of current fluctuations in the national economy and the long-run rise in productivity. Studies of the ways in which they affect families and how the effects may be made most constructive, additional research and services which may strengthen families and communities, and technical studies relating to insurance protection against the costs of hospital and medical care were carried forward with increasing stress on long-range national goals for social welfare.

William Lloyd Mitchell, who joined the staff of the former Social Security Board in 1936 and who served for 12 years as Deputy Commissioner, was sworn in as Commissioner of Social Security by Health, Education, and Welfare Secretary Arthur S. Flemming on February 4, 1959, to succeed Charles I. Schottland.

The 1958 amendments advanced long-range national goals for social welfare in a number of ways. Among the most important, old-age, survivors, and disability insurance benefit amounts were increased in recognition of rising prices, monthly benefits were inaugurated for dependents of disability insurance beneficiaries, and the financial soundness of the program was further secured. The new formula for Federal participation in public assistance payments provided additional funds to all States for aid to the needy, more flexibility in meeting medical care and other special needs of assistance recipients, and at the same time recognized the varying fiscal capacities of the States. Federal funds allotted for child welfare services were made

available to urban areas, deleting the previous requirement that such funds be used in predominantly rural areas and other areas of special need.

Under the schedule in the law, old-age, survivors, and disability insurance benefits payable beginning with those for January 1959 were increased by about 7 percent (more at the minimum) above the levels provided since the last increase in 1954. Primarily as a result of the increase, the average for retired workers receiving benefits at the end of June 1959 was $72.19 compared with $65.71 a year earlier. The average monthly benefit awarded to the worker coming on the rolls in June 1959 was $80.32 compared with $74.03 the previous June.

The 7-percent increase largely restored the 1954 value of the benefits. At the same time, the maximum amount of earnings taxable and creditable toward benefits was increased from $4,200 to $4,800 effective in 1959 to restore the relationship between workers' taxable and total earnings that existed in 1954.

The new matching provisions effective October 1, 1958, in the four federally aided assistance programs were reflected in a $6 million increase in total payments under the programs for that month. Some States raised their average monthly payments. Others that had scheduled reductions in average payments because of larger caseloads resulting from the recession were able to maintain about the same average. After reaching a peak of $311 million in March 1959, total monthly assistance payments, including general assistance—available in some parts of all States and financed entirely from State and local funds—showed a net increase in June 1959 over the previous June of $18 million and amounted to $303 million in June 1959.

Toward the end of the fiscal year, improved economic conditions and favorable seasonal influences were discernible in the monthly changes in general assistance caseloads in States where this aid is available to employable persons and in the number of persons receiving aid to dependent children. Total general assistance cases declined for 3 consecutive months from 480,000 in March to 388,000 in June.

General assistance caseloads had reached a previous peak of 454,000 in April 1958, the same month that industrial production reached its lowest level during the recent recession. While part of the decline from that peak was attributable to improved economic activity, part was due to the temporary unemployment compensation program of 1958–59. This program for persons who had exhausted their regular unemployment insurance benefits paid almost $92 million in September. For June 1959, total benefits under the program had declined to $10 million.

The June 1959 drop in the number of persons receiving aid to dependent children was the first monthly decline for this program

in 2 years, although the 2,929,000 recipients that month was about 200,000 above June 1958 and 530,000 above June 1957. Total payments in June 1959 were made at an annual rate of $1,000 million, compared with $750 million in June 1957.

Continuing important trends were apparent in the number of persons receiving both old-age assistance and old-age, survivors, and disability insurance benefits. The proportion of all aged persons receiving old-age assistance declined from 18 percent in mid-1955 to 16 percent in mid-1959. At the same time, the proportion of old-age assistance recipients whose payments supplemented old-age, survivors, and disability insurance benefits increased. In mid-1959, 27 percent of old-age assistance recipients also received an old-age, survivors, and disability insurance benefit, compared with 20 percent in mid-1955.

The number of persons receiving monthly benefits under the old-age, survivors, and disability insurance program, which has made substantial progress toward universal coverage of the labor force during recent years, passed the 13-million mark in May and stood at 13.2 million at fiscal year's end. Of these, 10.7 million were age 62 or over, 275,000 were disabled workers age 50–64, 489,000 were mothers caring for a child beneficiary, and 1.7 million were entitled children.

More than 2.4 million persons were receiving old-age assistance, 2.9 million children and their adult caretakers were receiving aid to dependent children, 339,000 persons were receiving aid to the permanently and totally disabled, and 109,000 were in receipt of aid to the blind.

Over the fiscal year, social insurance, related payments, and public assistance amounted to about $24 billion. Old-age, survivors, and disability insurance accounted for more than one-third of this total, unemployment insurance (administered by the U.S. Department of Labor and State employment security agencies) for over one-fifth, and public assistance payments for about one-seventh. Benefits paid under other public programs—such as Federal, State, and local employee retirement systems, railroad retirement, veterans' programs, workmen's compensation, and temporary disability insurance—accounted for the remainder. In June 1959, social insurance, related payments, and public assistance accounted for 6.2 percent of total personal income in the United States.

The health and welfare service programs administered by the Children's Bureau contributed to the well-being of children throughout the Nation. The Bureau administered grants to the States totaling $43,500,000 in the cooperative Federal-State programs for maternal and child health, crippled children, and child welfare.

Preliminary figures from State reports indicated that in 1958 a new peak was reached in the number of handicapped children served

under federally aided programs for crippled children. Some 325,000 children were provided services during the year. Most of the children, 255,000, were examined in clinics; about 71,000 received physicians' services through home or office visits, approximately 53,000 were hospitalized, and 3,800 received convalescent home care.

The infant mortality rate, which edged up again slightly in 1958, lent added importance to the extension and improvement of services for promoting the health of mothers and children. Under the 1958 program, 257,000 mothers received maternity medical clinic services and public health nurses served 554,000 mothers before and after delivery. About 1,427,000 infants and other children received well-child conference services and over 3,018,000 received child health nursing service. Polio immunizations reached 5,100,000 children through maternal and child health program grants.

Further increases in the rate of unmarried parenthood and the growing problem of juvenile delinquency were again major concerns of the Children's Bureau. Within its capacity, Bureau staff provided expert consultant service and worked with a wide range of agencies in these problem areas.

The Bureau of Federal Credit Unions marked its 25th year of self-help on the anniversary of the signing of the Federal Credit Union Act in June 1934. At the end of June 1959 there were more than 9,300 active Federal credit unions with 5.4 million members and assets totaling $2.15 billion.

The Social Security Administration had 26,322 employees at the end of June. The great majority of these employees were in district offices and other offices of the Bureau of Old-Age and Survivors Insurance.

Indicative of the constructive concern of the American people with questions of income security, health security and the adequacy of social services were plans for the decennial White House Conference on Children and Youth in 1960; establishment under the Social Security Amendments of 1958 of advisory councils to review the status and financing of the public assistance programs and the extension of child welfare services beyond rural areas; the intensive study of hospitalization insurance for old-age, survivors, and disability insurance beneficiaries made by the Department at the request of the House Ways and Means Committee; and preliminary planning for the White House Conference on Aging in 1961.

The National Committee on the 1960 White House Conference on Children and Youth met for the first time in December 1958. They discussed preliminary plans and chose the theme of the conference: "to promote opportunities for children and youth, to realize their full potential for a creative life in freedom and dignity."

The Secretary of Health, Education, and Welfare in January 1959 announced the appointment of the 12-member Advisory Council on Public Assistance to serve with the Commissioner of Social Security as chairman. The 1958 amendments provided for the establishment of the council and directed it to review "the status of the public assistance program in relation to the old-age, survivors, and disability insurance program, the fiscal capacities of the States and the Federal Government, and any other factors bearing on the amount and proportion of the Federal and State shares in the public assistance program." The council is to report its findings and recommendations not later than January 1, 1960.

The Secretary submitted the Department's study of alternative ways of providing insurance against the cost of hospital and nursing home care for old-age, survivors, and disability insurance beneficiaries to the House Ways and Means Committee on April 2, 1959. The Secretary said in his letter of submittal that the report "attempted to present the most important factual information bearing on this subject in the most objective possible manner." He also pointed out that although the report identified the arguments advanced both for and against Federal action in this area, it made no attempt "to present conclusions and recommendations based on this discussion."

Appointment of an Advisory Council on Child Welfare Services was announced on April 25. The council was established to study the effect of the 1958 amendments to the child welfare provisions of the Social Security Act and to report its findings and recommendations on or before January 1, 1960. Members of the council, which held its first meeting in May 1959, include representatives of public, voluntary, civic, religious, and professional welfare organizations and groups, as well as the general public.

The Advisory Council on Social Security Financing issued its report on January 1, 1959. The major finding of the Council was that the present method of financing the old-age, survivors, and disability insurance program is sound and that no fundamental changes are required or desirable.

At fiscal year's end, preliminary plans were underway to observe during 1960 the 25th anniversary of the August 14, 1935, signing of the Social Security Act.

International Activities

Wider Social Security Administration participation in international social welfare matters was evident in many aspects of cooperative activities with United Nations and Organization of American States agencies, with nongovernmental international groups, and with

the international committees of national social welfare associations. Staff participated in several important intergovernmental policy meetings or expert groups of intergovernmental organizations and voluntary international organizations.

Greater U.S. emphasis on the social objectives of international programs resulted in more requests for technical advice on policy. Exchange programs expanded, with requests for services from nongovernmental agencies showing an increase. More U.S. social workers sought study opportunities abroad.

Prominent among the organizations to which the Social Security Administration furnished advisory and other service were the United Nations Social Commission, the United Nations Children's Fund, the International Labor Organization's Committee of Social Security Experts, and the Inter-American Economic and Social Council and the Inter-American Children's Institute of the Organization of American States.

The Social Security Administration also participated in planning for meetings of the United Nations Economic and Social Council; the United Nations Special Fund; the Commissions on Status of Women, Human Rights, and Population; and other assemblies.

A highlight of the year was the Ninth International Conference of Social Work in Tokyo, with 42 countries represented. The Social Security Administration was represented by the Commissioner, the Chief of the Children's Bureau, and the Chief of the International Service. Associated meetings included the Ninth International Congress of Schools of Social Work, the International Study Conference on Child Welfare, and the Pan Pacific Conference on Rehabilitation.

During the fiscal year the Social Security Administration's International Service planned training programs or conducted training sessions for 987 nationals of 72 countries. Applications for the training came through the International Cooperation Administration, the United Nations, the World Health Organization, and increasingly through the Department of State exchange programs, various governments and embassies, and various foundations and agencies.

Applications through the United Nations for training reflected the major trends characteristic of the evolution of social services in various parts of the world. The United Nations Bureau of Social Affairs reported that these trends in 1959 were increased government responsibility, increased emphasis on the family, continued development of assistance toward self-support, and continued emphasis on the training of social welfare personnel.

As in past years, the Social Security Administration cooperated with the International Cooperation Administration in the nomination and technical support of experts in the fields of social welfare, social in-

surance, and maternal and child health. The number of experts on duty for all or part of the fiscal year was 14.

Five officials of the Social Security Administration made a 30-day firsthand study of the social security system in the Soviet Union during August and September 1958. Officials of the Soviet Union, in turn, made a similar visit to the United States in November and December. The U.S. team consisted of the Commissioner of Social Security, the Director of the Bureau of Old-Age and Survivor Insurance, the Chief Actuary of the Social Security Administration, the Chief of the Division of Technical Training of the Bureau of Public Assistance, and the Assistant Director in charge of the Division of Disability Operations of the Bureau of Old-Age and Survivors Insurance.

Old-Age, Survivors, and Disability Insurance

Speaking at the ceremonies marking the cornerstone laying of the new headquarters building of the Bureau of Old-Age and Survivors Insurance, the Secretary of Health, Education, and Welfare referred to President Eisenhower's characterization of the old-age, survivors, and disability insurance program as the cornerstone of the Government's effort to provide for the economic security of the American worker and his family. Expressing his own belief that it is a cornerstone well-laid, the Secretary attributed the success of the program to the application of sound management principles and to the fact that, despite the size of the old-age, survivors, and disability insurance program, the Bureau has not lost sight of the individual whom the program is intended to serve.

At the close of fiscal year 1959, the number of beneficiaries receiving old-age, survivors, and disability insurance benefits reached nearly 13.2 million—about 1.3 million more than at the close of fiscal year 1958. Some of these new beneficiaries came on the rolls as a result of the Social Security Amendments of 1958, which, among other improvements, provided benefits for certain dependents of disabled workers and for some dependent parents who previously were ineligible for benefits. The new legislation also increased benefits for all beneficiaries, raised the amount of earnings taxable and creditable for benefit purposes, and provided a stepped up schedule for contribution rate increases.

During the year, the chairman of the Committee on Ways and Means of the House of Representatives appointed a subcommittee to

study the administration and operation of the social security laws. At the request of the subcommittee, information for a "Fact Book on the Disability Provisions of the Old-Age, Survivors, and Disability Insurance Program" was prepared by the Bureau and the necessary background work was begun for public hearings scheduled to start in November 1959.

The Advisory Council on Social Security Financing issued its report on January 1, 1959. The Council stated as its major finding that the present method of financing the old-age, survivors, and disability insurance program is sound and that no fundamental changes are required or desirable.

Although the 1958 amendments created new and additional workloads to which the Bureau had to give primary attention, it continued to make good progress on projects designed to bring about more efficient operations and improved service to the public. A major step forward in improving the Bureau's service to the public was the opening of a new payment center in Baltimore for the centralized processing of disability claims and foreign claims.

The biggest enterprise aimed at improving the Bureau's operations is a critical examination and appraisal of the total claims process that is being made by a central study group, composed of people drawn from positions of leadership in the Bureau and a management consultant from private industry. As a result of this project, the Bureau expects to make far-reaching changes in the mechanics of doing its job.

Work on the new Bureau headquarters building proceeded on schedule. The move to the new building early in 1960 will improve communications between the many units of the Bureau and facilitate Bureau work.

A more detailed report of the year's significant events and accomplishments is given in the following sections.

What the Program Is Doing

Beneficiaries and benefit amounts.—During the fiscal year ended June 30, 1959, benefits paid under the old-age, survivors, and disability insurance program totaled $9,388 million. Monthly benefit payments during the 12 months were 17 percent greater than the amount for the preceding fiscal year and totaled $9,239 million; this amount includes $339 million paid to disabled workers aged 50–64 and their dependents. Lump-sum death payments rose 5 percent to $150 million.

The number and amount of monthly benefits continued to rise sharply. In June 1959 almost 13.2 million beneficiaries were receiving benefits at a monthly rate of $805.5 million—increases from June 1958

of 1.3 million in number and $145.9 million in amount. The increase in number amounted to 11 percent, and the rise in the monthly amount to 22 percent. The sharp increase in the monthly rate was chiefly the result of the higher benefits provided by the 1958 amendments and the marked increase in the total number of beneficiaries. Among other contributing factors were (1) the repeal by the 1958 amendments of the "offset" provisions, under which disability insurance benefits were reduced by payments based on disability payable under certain other programs; and (2) the payment of monthly benefits, beginning with the month of September 1958, to wives, husbands, and children of disabled-worker beneficiaries.

Men aged 65 or over and women aged 62 or over made up 10.7 million (81 percent) of the beneficiaries—7.3 million of them were retired workers and 3.4 million were the wives and dependent husbands of retired or disabled workers and the widows, dependent widowers, and dependent parents of workers who had died. Of the remaining 2.5 million (19 percent), 1.7 million were children, some 489,000 were mothers, and 275,000 were disabled workers aged 50–64.

Almost 2.3 million monthly benefits were awarded in fiscal year 1959, only 200,000 less than the number awarded in the preceding year. New highs were reached for child's benefits (368,000), mother's benefits (91,000), and parent's benefits (6,000). Contributing to the record number of child's benefit awards were the 61,500 benefits awarded to children of disabled-worker beneficiaries. The record number of parent's benefit awards resulted mainly from the changes in the 1958 amendments that provide benefits for the dependent parents of a deceased worker even though a widow, dependent widower, or dependent child of the worker also survived.

Lump-sum death payments during 1958–59 numbered 757,000, about 20,000 more than the previous high established in fiscal year 1958. About 729,000 deceased workers were represented in these awards. The average lump-sum amount per worker represented in the June 1959 awards was $208.59.

In June 1959, the average old-age insurance benefit paid to a retired worker who had no dependents also receiving benefits was $68.30 a month. When the worker and his wife both received benefits, the average family benefit was $120.60. Families consisting of a widowed mother and two children received on the average $166.50. Among beneficiaries on the rolls at the end of June 1959, whose benefits are based on earnings after 1950, the average for a retired worker with no dependents receiving benefits was about $77.60, for an aged couple about $131, and for a widowed mother and two children about $197.

Disability provisions.—During the fiscal year, 170,000 workers of all ages were found eligible to have their social security records frozen;

applications from about 165,000 workers were denied. When a worker's social security record is frozen, his insurance rights are preserved and the period when his disability prevents him from performing any substantial gainful work does not count against him in determining whether he or his survivors are eligible for benefits or in calculating the amount of the benefits. Disabled workers aged 50–64 receive monthly disability benefits calculated as though the worker had already reached retirement age at the time his disability began.

Disabled workers aged 50–64 receiving disability insurance benefits showed the largest percentage increase in the fiscal year (37 percent) and numbered 275,000 in June. About 86,000 benefits were being paid in June to dependents of disabled-worker beneficiaries. Moreover, on June 30, 1959, there were an estimated 100,000 disabled workers under age 50 with an established disability freeze.

By the end of November 1958, the latest date for which this information is available, about 56,000 persons were receiving old-age benefits that had been increased by an average $9.51 a month as a result of having had their social security records frozen for periods while they were disabled before reaching retirement age. The higher benefits were attributable to the exclusion of a period of disability and also to the dropping of as many as 5 years of lowest earnings in the computation of the worker's average monthly wage when eligibility for such dropout stemmed from the disability freeze. About 18,200 wives and young children of retired workers and about 15,700 widows, children, and dependent parents of workers who had their social security records frozen before death were also receiving larger monthly benefits because of the freeze. For the same reason, lump-sum death payments during the 11 months ended November 1958 based on the earnings records of 10,600 deceased workers were increased by an average of $25.94 per worker.

Child's monthly benefits are payable to totally and permanently disabled persons aged 18 or over—dependent children of deceased, disabled, or retired insured workers—whose disability began before age 18. During the fiscal year 28,000 persons met the disability requirements for child's benefits and 5,000 applications were denied. By the end of June 1959 such child's monthly benefits were being paid to 65,000 persons at a monthly rate of $2.8 million. About 10,700 women—who would not otherwise receive benefits—were receiving wife's or mother's benefits as the mothers of disabled persons receiving child's benefits.

The protection provided.—Of the population under age 65, an estimated 69.5 million were insured at the beginning of the calendar year 1959. Some 32.0 million of these people were permanently insured—that is, whether or not they continued to work in covered jobs, they will be eligible for benefits when they reach retirement age, and

their families are assured of protection in the event of their death. (Included in this total were some three-fourths of a million women aged 62–64 who were already eligible for old-age benefits but on a reduced basis.) The remaining 37.5 million were insured but would have to continue in covered work for an additional period to make their insured status permanent. Nine out of ten of the mothers and young children in the Nation were assured that they would receive monthly benefits in case of the death of the family breadwinner. An estimated 44 million of the insured persons under age 65 also met the work requirements for protection against the risk of long-term and severe disability.

Of the 15.4 million people aged 65 or over in the United States at the beginning of 1959, 70 percent were eligible for benefits under the program. Sixty percent were actually receiving benefits, and 10 percent were not receiving benefits because they or their husbands were receiving substantial income from work. The percentage of aged persons who are eligible is expected to rise to 75 percent by 1961.

The coverage of the program.—An estimated 73 million persons will have worked under old-age, survivors, and disability insurance during the calendar year 1959. Furthermore, about 1.3 million persons employed in the railroad industry had, in effect, joint coverage under the railroad retirement and old-age, survivors, and disability insurance programs. Altogether, including State and local government and nonprofit employees for whom coverage is available on a group-election basis and members of the Armed Forces, nine-tenths of all persons in paid employment in the continental United States were covered or could have been covered by old-age, survivors, and disability insurance in June 1959.

Of workers not eligible for coverage, about one-third were covered by other public retirement programs—Federal, State, or local. The remaining two-thirds—7 percent of the Nation's paid employment—were not covered by any public retirement program. Those without retirement protection under a public system consisted principally of self-employed persons whose annual net earnings were less than $400, and of domestic and farm workers who did not earn sufficient wages from any one employer to meet the minimum coverage requirements of the law.

Income and disbursements.—Expenditures from the Federal Old-Age and Survivors Insurance Trust Fund during the fiscal year totaled $9,380 million, of which $9,049 million was for benefit payments, $124 million in transfers to the railroad retirement account and $206 million, including Treasury Department costs, for administrative expenses. Total receipts were $8,109 million including $7,565 million in net contributions and $543 million in interest on investments. Dis-

bursements exceeded receipts by $1,271 million, the amount of the decrease in the trust fund during the year. At the end of June 1959 this fund totaled $21.5 billion.

Total assets of the old-age and survivors insurance trust fund, except for $1,067 million held in cash, were invested in United States Government securities as required by law; $3.3 billion were invested in public issues (identical to Treasury securities owned by private investors), and $17.2 billion were invested in securities of varying maturities issued for purchase by the trust fund. The average interest rate, figured on the coupon rate and face amount of all investments of this fund at the end of the fiscal year, was 2.61 percent.

The Federal Disability Insurance Trust Fund was created by the Social Security Amendments of 1956. Contributions to this fund first became payable in January 1957. Benefit disbursements began in August 1957. Expenditures from the Federal Disability Insurance Trust Fund during the fiscal year totaled $361 million, of which $339 million was for benefit payments and the remainder—some $21 million—for administrative expenses. Total receipts were $928 million, including $895 million in net contributions and $33 million in net interest. Receipts exceeded disbursements by $567 million, the amount of increase in the fund during the year. At the end of June 1959, the fund totaled $1,666 million.

Assets of the disability insurance trust fund consisted of $1,607 million in U.S. Government securities and a cash balance of $59 million. The invested assets consisted of $73 million in public issues and $1,533 million in securities of varying maturities issued for purchase by the trust fund. The average interest rate figured on the coupon rate and face amount of all investments of this fund at the end of the fiscal year was 2.63 percent.

Administering the Program

Planning for fiscal year 1959 called for a reassessment of Bureau operations and administration with the objectives of improving their overall quality and of providing better service to the public. This preliminary planning was based on anticipation of a period of comparative workload stability and relief from the operating pressures which have prevailed over the last decade, a period of rapid program expansion.

However, enactment of the Social Security Amendments of 1958 precluded following through completely on original plans. The new amendments, containing significant and far-reaching changes, immediately increased the volume of work for the Bureau during the fiscal year. To absorb the added workloads and effectuate the changes

in the law promptly and efficiently, the Bureau had to modify its immediate objectives.

The recruitment and training of new personnel was the first problem to be met. Additional personnel requirements were measured against expected workload increases, workload carryover from the previous year, recruitment possibilities, Bureau capacity to effectively train and absorb the added staff, and anticipated workload levels after 1959. In balancing these factors, a recruitment objective of about 3,300 employees was established; about 2,800 of these represented permanent staff. Employment at the end of the year was 25,283, a figure fairly close to the staff required to continue Bureau operations in subsequent years under the present program. Approximately 1,000 of the new personnel are district office employees who serve the public directly in the development of claims for old-age, survivors, and disability insurance benefits.

A major task resulting from the 1958 amendments was the conversion of benefit amounts for approximately 12 million old-age, survivors, and disability insurance beneficiaries. Benefit rates had to be recomputed and adjusted quickly enough to permit timely issuance of the January benefit checks dated February 3, 1959. The Bureau was able to meet this conversion schedule because of a previous decision to record basic benefit data on magnetic tape which permitted development of statistical data by electronic equipment. The growing number of beneficiaries had made it increasingly time-consuming and expensive to process and tabulate benefit data by conventional methods. The use of magnetic tape provides a more rapid and economical way to obtain benefit data and greatly facilitates the processing of changes in benefit amounts brought about by new legislation.

Immediately upon enactment of the new amendments, the Bureau was faced with the job of making the August checks (issued in September) of about 38,000 disability beneficiaries reflect the increased amounts brought about by elimination of the offset provision. (Under this provision, disability benefits had been suspended, or reduced by the amount of any periodic benefits payable to an individual on account of disability under certain other Federal programs or under State workmen's compensation programs.) Through use of the magnetic tape the Bureau met its deadline.

To assist the Office of Hearings and Appeals in its efforts to process an extensive backlog of appealed cases which had developed during the year as a result of high initial filings under the amendments establishing the disability program, the Bureau recruited from its employees 34 individuals with law degrees and with experience in the adjudication or review of old-age, survivors, and disability insurance claims to serve as referees in various cities throughout the country on a temporary basis.

During the fiscal year, the Bureau received more than 2,507,000 claims for old-age and survivors insurance benefits and almost 424,000 claims for disability insurance benefits and the disability "freeze." More than 3,236,000 new social security accounts were established and over 2,788,000 duplicate account number cards were issued during the year. In addition, over 255,000,000 earnings items were received for posting to individual accounts. The Bureau also processed about 2,514,000 requests for changes in records and issued approximately 1,127,000 statements of earnings.

The new payment center in Baltimore which was established for the centralized processing of disability and foreign claims was opened on September 2, 1958. The transfer of workloads from the other payment centers was successfully carried out on a staggered schedule over an 8-month period.

Substantial progress has been made toward additional expansion early in fiscal 1960 in the use of electronic equipment in the earnings report process. A number of programs and procedures have been completed and tested on new high-speed Model III 705 machines at the IBM factory. When the new equipment is installed, virtually all the earnings records operations, with the exception of the initial keypunching, will be done electronically.

The Bureau also continued its study in fiscal 1959 of the application of electronic data processing to its administrative operations, including the areas of payroll, procurement and property management, personnel statistics, and accounting. Since initial findings indicate that potential economies and improvements may be realized through the utilization of IBM Type 705 data processing equipment, plans have been made for fiscal year 1960 to develop conversion and programing procedures for those areas most adaptable to automatic data processing.

A magnetic tape file of approximately 4 million employer names and addresses was established for all Internal Revenue Districts early in the fiscal year; it will be updated on a quarterly basis. The major benefit of this magnetic tape file is a more efficient and less costly method of addressing correspondence to employers than was possible under the former Addressograph plate system. Estimated savings of $175,000 per year are anticipated.

The Bureau continues to encourage employers who are using electronic data-processing systems compatible with Bureau electronic equipment to submit quarterly wage reports on magnetic tape thereby eliminating the necessity for key punching the earnings items. Eight employers who report approximately 85,000 earnings items quarterly are now reporting all, or part, of their earnings information by this means. Another large industrial concern will submit tape for about

36,000 of its salaried employees. Three additional employers will submit tape reports in the future. One of these is the Department of the Army which reports about 1 million earnings items each quarter. The magnetic tape reporting system was also discussed with officials of New York City. If necessary clearances are obtained, about 100,000 New York City employees will be reported on tape.

During the year the National Employee Index File of account number holders was converted from flexoline strips to microfilm. This operation involved the removal and photographing of about 160 million flexoline strips. Less than 2,400 film cartridges are required to store the entire index file which formerly used over 1.3 million flexoline panels; space requirements for this file have been reduced by about 16,000 square feet.

Plans were made during the year for the Baltimore Payment Center to use electronic data processing in its accounting and certification processes. Accounting and payment records for disability cases will henceforth be placed on magnetic tape. Data from the magnetic tape will be transferred to tabulating cards which the Treasury Department will use in the preparation of disability insurance checks for September 1959. The new tape not only provides an accounting control but also permits electronic updating of beneficiary rolls. It has enabled the Treasury Department to convert its disability payment records from Addressograph plates to tabulating cards.

A major development in improving Bureau operations is the carrying out of plans for a detailed study of the entire old-age, survivors, and disability insurance claims process from receipt of the application to certification for payment. A major objective of the study will be the development of new and improved clerical and mechanical systems and methods for acquiring and processing the data needed to complete a claim. A Central Study Staff of Bureau officials and a management consultant from private industry was established to make an exhaustive examination of the claims process. The study began in January 1959 and will be continued in fiscal 1960.

Bureau participation in international activities and meetings has been increasing over the last few years, particularly in providing program orientation to visiting officials of foreign social insurance systems and in developing and maintaining sources of information about the old-age, survivors, and disability insurance program abroad. Increased attention will be given to this important and growing activity. During the fiscal year the Bureau received 141 visitors from 29 countries. The visitors came as individuals and in groups for visits varying from one day to several weeks. The programs arranged for these visitors included participation by all parts of the Bureau.

Early in the fiscal year the Director of the Bureau and the Assistant

Director in charge of the Division of Disability Operations accompanied three other officials from the Social Security Administration to the Soviet Union to study their social security system under the East-West Cultural Exchange Program. In November 1958, a five-man Soviet team came to the United States in return, visiting the Bureau's Central Office, several field installations, various State and local government and private social agencies, and other organizations throughout the country.

A delegation consisting of six social security officials from France also visited the Bureau during a 5-week tour of the United States. They were here to observe and discuss old-age, survivors, and disability insurance program operations and administration; their interest covered every phase of Bureau operations. After visits to the New York Payment Center and a district office in Chicago, the group spent 7 days in the Bureau's Baltimore offices.

In June, two Bureau representatives went to Europe to conduct a 4-month examination of problems pertaining to the administration of the old-age, survivors, and disability insurance program in Greece, and to explore ways and means of facilitating the claims process and services to claimants and beneficiaries in Greece and other European countries.

On March 9, 1959, the House of Representatives adopted H. Res. 182, which authorized the House Committee on Ways and Means to study or investigate matters which come under its jurisdiction. Acting upon the resolution, the committee established three subcommittees, one of which will study administration of the social security laws. In preparation for this study, the Director appointed an Assistant Director to serve as coordinator within the Bureau and as a liaison person with the subcommittee. He was assisted by a small staff in the development of information requested by the subcommittee, covering processing times, pending loads, types of cases, rules and regulations, policies and procedures, and other materials, with emphasis on the disability program.

Last year the Treasury Department advised the Bureau that it planned to revoke the delegation under which the Birmingham Payment Center had been writing and issuing old-age and survivors insurance benefit checks since July 1955. The administrative problems connected with the change were solved and transfer of the check-writing function to the Treasury Department was accomplished in an orderly manner.

During the year departmental approval was received for the establishment of a new division in the Bureau; the Division of Public Information and Personnel Management, which became operative early in fiscal 1960. It was organized to consolidate functions relating

to training, personnel, employee health, public information, and employee communications. The new organizational grouping, designed to help the Bureau meet its greatly enlarged responsibilities, permits full coordination of the management areas affected.

Work on the new Bureau Building on the outskirts of Baltimore has proceeded on schedule. Tentative completion dates of January 15, 1960, for the Operations Building, and February 3, 1960, for the Administration Building have been established.

In May 1959, congressional approval was granted for an addition to the new building to house the Baltimore Payment Center and the Division of Disability Operations. The establishment of these organizations has increased space needs beyond the capacity of the new building as originally planned in 1953. Plans and specifications are being developed in preparation for requesting bids for construction.

Total administrative expenses of the old-age, survivors, and disability insurance program in fiscal year 1959 amounted to approximately $216 million, exclusive of $11.6 million for costs of the new building. Of the $216 million, about $41 million was incurred by the Treasury Department for the collection of social security taxes, preparation of checks for beneficiaries, and related activities. These administrative expenses amounted to approximately 2.55 percent of tax contributions and 2.30 percent of benefit payments.

Legislative Developments During the Year

No major legislation affecting old-age, survivors, and disability insurance has been enacted since the Social Security Amendments of 1958 (Public Law 85–840) became law in the closing days of the 85th Congress. While a substantial number of bills were introduced during the 1st session of the 86th Congress, only a single bill in the field of old-age, survivors, and disability insurance legislation has been acted upon in the Congress. This is H.R. 213 (Public Law 86–284), approved on September 16, 1959. This new legislation would (1) reinstate, through 1961, an expired provision of law permitting nine specified States to cover nonprofessional school district employees under special circumstances; (2) add the States of California, Kansas, North Dakota, and Vermont to the list of States which may cover employees in policemen's or firemen's positions under a retirement system; and (3) permit the coverage, under special conditions, of a few policemen in Oklahoma who have erroneously been reported as covered.

HEARINGS ON HOSPITALIZATION INSURANCE FOR OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE BENEFICIARIES

In compliance with the request made by the Committee on Ways and Means of the House of Representatives in its report to accompany

H.R. 13549 in July 1958, the Department submitted a report on "Hospitalization Insurance for OASDI Beneficiaries" in April 1959. The report included factual information resulting from a study of alternative ways of providing insurance to finance hospital and nursing home care for old-age, survivors, and disability insurance beneficiaries, and a listing of arguments for and against action in this area.

Shortly after the close of fiscal 1959, the Committee on Ways and Means held public hearings on H.R. 4700, the Forand bill, which would amend the Social Security Act to provide insurance against the cost of hospital, nursing home and surgical services for persons eligible for old-age and survivors insurance benefits and for dependents of disability insurance beneficiaries. Secretary Flemming presented testimony for the Department. Representatives of more than 80 organizations testified, including representatives of the medical profession, business, labor and health insurance plans. The committee did not take any action on this or similar bills. However, the Department is making a thorough study of proposals to stimulate the extension of voluntary health insurance coverage of the aged to determine whether it is possible to develop a practicable and desirable plan for Federal action to accomplish this purpose.

RAILROAD RETIREMENT LEGISLATION

The railroad retirement and old-age, survivors, and disability insurance programs are closely coordinated. Amendments to the Railroad Retirement Act enacted in May 1959 (Public Law 86–28) provided a 10-percent increase in the amount of benefits payable under the railroad retirement program, including benefits payable under the "social security minimum" provision of the Railroad Retirement Act. (Thus, this now guarantees that the total amount of the benefits payable to a railroad worker and his family will be at least 10 percent more than the amount which would have been payable if the worker's railroad employment had been covered under the social security program.) The wage and tax base of the program was raised from $350 to $400 per month; this amendment placed the wage bases of the two programs at a comparable level. The amendments also increased the contribution rates of the railroad retirement program, and provided for increases in rates for years after 1964, geared to increases in old-age, survivors, and disability insurance tax rates.

The Advisory Council on Social Security Financing

The Advisory Council on Social Security Financing, appointed by the Secretary of Health, Education, and Welfare in October 1957, continued to meet during calendar year 1958 and issued a unanimous

report on January 1, 1959. The Council's major finding was that—

> The method of financing the old-age, survivors, and disability insurance program is sound, and, based on the best estimates available, the contribution schedule now in the law makes adequate provision for meeting both short-range and long-range costs.

The Council endorsed the principle that employees, employers, and the self-employed should contribute toward the cost of the system. It recommended that increases in social security taxes now scheduled for 1959, 1960, and 1963 should go into effect and stated its belief that it will prove desirable to have the scheduled 1966 rate go into effect as well. The Council was doubtful whether the last scheduled rate increase—the one scheduled for 1969—should go into effect at that time; it did not recommend that any change be made now in the contribution schedule, but recommended that future advisory councils study the question.

The Council believed that after the contribution rate scheduled for 1966 goes into effect future decisions about rate increases, if any, should be guided largely by estimates of income and disbursements over the ensuing 15 or 20 years. However, the Council endorsed the present practice of including in the law a contribution schedule which, according to long-range cost estimates, places the system in actuarial balance into the indefinite future.

The Council's recommendations ". . . look toward a continuing review of the financial arrangements so that they, along with the other provisions of the program, can be kept sound and workable in a changing economy." The Council said, ". . . we believe there is a need for periodic scrutiny of all factors which in any way affect the financing of the program. These factors include the maximum earnings base for determining benefits and contributions."

As a result of the 1958 amendments, the maximum earnings base was increased from $4,200 to $4,800 on January 1, 1959. The Council did not recommend any further change in the base, but assumed that ". . . further consideration will be given to this maximum after the effect of the $4,800 figure has been evaluated." The Council pointed out that the earnings base determines the proportion of the Nation's payrolls available to finance the program and is a major factor in determining the extent to which the program pays benefits reasonably related to the past earnings of the individual.

The Council recommended changes in the provisions governing the interest rate to be paid on Government bonds issued solely for purchase by the old-age and survivors insurance and disability insurance trust funds, indicating its belief that ". . . the rate of return on trust fund investments in special issues should be comparable to what the Treasury would have to pay for long-term money if borrowed from

other investors. Such a rate of return seems to us the way to avoid either a financial advantage or disadvantage to the funds."

The Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds considered the recommendation of the Council and in their 19th Annual Report recommended adoption of a modified set of recommendations.

Special Studies Requested by the Congress

The Committee on Ways and Means of the House of Representatives had requested the Department to look into several problems concerning the old-age, survivors, and disability insurance program. One problem which the Bureau is studying intensively is how workers who get a substantial part of their work income in the form of tips can have those tips counted toward benefits. Another problem under study concerns what changes, if any, should be made in the retirement test provisions of the program, with particular attention to the provision which makes it possible for a beneficiary to receive benefits for some months in a year even though he may have had high earnings during the year.

Surveys of Resources of Old-Age, Survivors, and Disability Insurance Beneficiaries

In order to appraise the adequacy of old-age, survivors, and disability insurance benefits, it is necessary to know what resources beneficiaries have in addition to their benefits. Beginning in 1941 and continuing through 1957 the Bureau of Old-Age and Survivors Insurance conducted a series of cross-section surveys of persons on the rolls in a given month to obtain information on the source and amount of their other income, home ownership, miscellaneous assets and liabilities. In addition, information is obtained concerning family composition and living arrangements, and on expenditures such as those for housing and medical care costs and health insurance coverage.

The cross-section surveys provide a picture of the economic situation of beneficiaries in a given year, but they do not tell what happens to retired people over the course of years. To determine how the socioeconomic situation of beneficiaries changes after they come on the benefit rolls, the Bureau is embarking on a retirement history study in which a sample of persons will be interviewed shortly after they come on the benefit rolls and information will be obtained on their situation in the year before they filed for benefits. They will be interviewed a year later to obtain a record of their first year's

experience after filing for benefits. Subsequent resurveys will be made every 2 or 3 years over a period of 12 years in order to learn how their situation changes with time and what adjustments they make to these changes. The initial survey in the retirement history study is planned for the spring of 1960 and the first resurvey for the fall of 1961.

Little is known about the economic situations of persons drawing disability benefits and persons under age 50 who have been awarded a freeze of their wage records. A field survey of disabled persons is scheduled for the fall of 1960; it will provide not only current information on their economic situation but also the data required for planning and carrying out a longitudinal study of a sample of disabled persons.

Because of the importance of beneficiary surveys in connection with proposed legislation and use of the findings by persons outside the Department, the program of surveys of the socioeconomic situation of old-age, survivors, and disability insurance beneficiaries and potential beneficiaries is being expanded.

Program Simplification Project

The Bureau continued to make progress in developing legislative proposals which would make the old-age, survivors, and disability insurance program easier to understand, accept, and administer. Proposals developed last year for simplifying benefit computations and the retirement test were enacted into law in the 1958 amendments and, subsequent to the amendments, proposals were developed to simplify: (1) the coverage provisions for State and local employees; (2) lump-sum death payments; and (3) the dependency requirements for auxiliary beneficiaries.

As a result of an extensive line-by-line review of the law, which was begun last year, proposals were also developed to simplify other areas of the program. In conjunction with the line-by-line review, the first steps were taken towards a comprehensive recodification of the law to make it more readable and easier to work with.

Two subjects brought under study late this year will be further examined during the next year—the family relationship requirements for auxiliary beneficiaries and the insured status requirements for entitlement to benefits.

Financing the Program

In modifying the schedule of contributions under the old-age, survivors, and disability insurance program at the time it enacted the amendments in 1958, Congress again made clear its intent that the

program be self-supporting from contributions of covered workers and employers. The revision in the schedule was arrived at after careful review of long-range actuarial cost estimates prepared for use of the congressional committees in their legislative considerations.

Old-age and survivors insurance benefits.—The level-premium cost of old-age and survivors insurance benefits after 1957, on an intermediate basis, assuming interest at 3 percent and earnings at about the levels that prevailed during 1956, is estimated at 8.27 percent of payroll (after adjustments to allow for administrative expenses and interest earnings on the existing trust fund). The level contribution rate, equivalent to the graduated rates in the law, is estimated at 8.02 percent of payroll, leaving a small actuarial insufficiency of 0.25 percent of payroll. In view of the very long range over which these projections are made, and the many variable factors included, the insufficiency is so small that the system may be considered in close actuarial balance.

Disability insurance benefits.—The Social Security Amendments of 1956 established a system for financing disability benefits which is entirely separate from the financing of old-age and survivors insurance benefits. The level-premium cost of the disability benefits and the applicable administrative expenses on an intermediate basis is 0.49 percent of payroll. Contribution income has been specifically allocated to finance these benefits; this income is equivalent to 0.50 percent of payroll, thereby producing an actuarial surplus of 0.01 percent of payroll.

Continuing review of cost estimates.—The difficulties involved in making exact cost estimates as to the actuarial status of a program that reaches into the distant future are widely recognized. If different assumptions as to, say, interest, mortality, retirement, disability, or earnings had been used, different results would have been obtained. Accordingly, no one set of estimates should be looked upon as final. The Department, in carrying out its policy of continually reexamining the long-range cost estimates of the program in the light of the latest information available, is now in process of a complete review and revision of its cost estimates.

Public Assistance

The establishment by the Congress in 1958 of an Advisory Council on Public Assistance to review the status of the public assistance programs, and the approach of the 25th anniversary of the Social Security Act, made 1959 a year of thoughtful evaluation of progress under the public assistance programs in helping meet needs of the American people over the past quarter century. Study of many

facets of the program to provide basic data needed by the Advisory Council has also helped to clarify the role of public assistance within the economic and social framework of the Nation, and to delineate more sharply the problems ahead.

The influence of both self-evaluation and study was reflected in other activities of the Bureau of Public Assistance and State public assistance agencies during the past year.

Trends in Caseloads and Expenditures

About 6.8 million people in the United States were dependent on some form of public assistance in June 1959. These people—about 4 out of every 100 in our population—were ineligible for benefits provided by other public programs, or, if eligible, received amounts insufficient to meet minimum needs.

The total number receiving public assistance under federally aided programs included 2.9 million dependent children and their caretakers receiving aid to dependent children—the largest assistance group since 1957; 2.4 million persons receiving old-age assistance; 339,000 receiving aid to the permanently and totally disabled; and 109,000 receiving aid to the blind. In addition, about 1.0 million persons (in 388,000 cases) received State and/or locally financed general assistance.

The total number of persons receiving assistance in June 1959 was about 100,000 more than in June 1958. General assistance and old-age assistance were the only programs with smaller caseloads in June 1959 than in June 1958. The larger decline—13.2 percent (153,000 persons)—occurred in general assistance programs, the type of aid most sensitive to seasonal factors and changes in economic conditions. The decline in old-age assistance from June 1958 to June 1959 was 1.6 percent (40,300 persons). The increase in aid to the blind was only slight. In aid to the permanently and totally disabled it was 8.5 percent. In aid to dependent children the increase of 195,800 recipients (including 154,800 children) from June 1958 to June 1959 represented a 7.2-percent increase in total recipients and a 7.4-percent increase in children. The increase, however, was less than three-fifths of that occurring in the previous year.

Why they are needy.—Most people receiving public assistance are struggling not only with problems of inadequate income, but also have other serious personal difficulties contributing to their dependency. For example, half the 2.4 million persons receiving old-age assistance are over 75, an age when only a few are likely to be employed. Three out of five are women; many are widows who have never been employed. While two out of three of the aged recipients live in their own homes and most of them are able to be up and about,

some are seriously ill. One in thirty is confined to bed at all times; and 1 in 20 lives in an institution, usually a private nursing home.

The 2¼ million children receiving aid to dependent children are needy because of the death, disability, or absence of a parent. The typical family consists of 3 young children and a mother in her middle 30's. Many suffer from emotional conflict, hardship, and instability in their family life, for most of the children live in homes where one parent has deserted or where the parents are separated, divorced, or never married.

Of persons receiving aid to the blind, half are over 63 years of age. Most have been blind about 20 years and are totally blind or have very limited vision. About 5 out of 8 blind recipients are men. All persons receiving aid to the disabled have disabilities defined as both permanent and total. Most of them have more than one impairment, with heart disease the most frequent. About 2 in 10 are so seriously disabled that they cannot leave their homes. Women slightly outnumber men.

Of the 1.0 million persons who receive general assistance, an estimated 76 percent are in family cases, and 24 percent are single person cases. Need is usually related to unemployment, ineligibility for or exhaustion of unemployment compensation benefits, wages or unemployment compensation benefits insufficient to meet basic family needs, temporary illness or partial incapacity, inability to meet State residence or other eligibility requirements of other assistance or social insurance programs, or to special needs which cannot be met within these other programs.

The number of general assistance recipients does not reflect the full extent of need not covered by federally aided assistance programs; it represents only the portion which States and localities are able and willing to meet. In most States general assistance is provided only to unemployable persons; nonresidents are aided only in emergencies with arrangements made for return to their State of residence as quickly as possible. Some States provide no financial assistance to employable persons and their families.

How much assistance they receive.—The Social Security Act requires that in determining the need of each individual requesting assistance consideration be given to any other income and resources he may have (except that in the aid to the blind program the first $50 of earned income must be disregarded). Each State is responsible for determining who are "needy" people and how much they will receive under a given program. States differ both in their definition of need and in the degree of responsibility they accept for meeting need as determined under the various assistance programs. One State may provide for some medical needs in its old-age assistance program, but

not in its aid to dependent children program, while another State may make no provision for medical needs under any of its assistance programs. Thus the amount of assistance provided to a needy person may vary from State to State and among programs within a State.

For example, the national average payment per recipient of old-age assistance in June 1959 was $64.76 but average payments ranged from a low of $29.83 in Mississippi to a high of $110.17 in Connecticut (except for $8.20 in Puerto Rico and $23.40 in the Virgin Islands). The national average payment per recipient of aid to the blind was $69.04, with payments ranging from a low of $35.33 in Alabama to a high of $117.35 in Massachusetts (except for $8.25 in Puerto Rico). For aid to the permanently and totally disabled, the national average payment was $63.37 per recipient with payments ranging from $29.95 in Mississippi to $134.95 in Connecticut (except for $8.85 in Puerto Rico and $25.64 in the Virgin Islands).

The national average payment per recipient of aid to dependent children, $28.39 (with State averages ranging from $7.02 in Alabama to $47.53 in Connecticut, except for $4.09 in Puerto Rico), is much less than national average payments in the other federally aided programs; e.g., as indicated above, the national average payment per recipient of old-age assistance is $64.76, with a range from $29.83 to $110.17.

The relatively lower national average payment of $65.79 *per case* in the general assistance program in June 1959—41 percent are family cases including an average of 4.5 persons per family—compared with the national average payment of $64.76 *per recipient* in old-age assistance is undoubtedly indicative of the difficulty some States have in financing general assistance programs without Federal aid. Average payments *per case* in the general assistance program ranged from $12.43 in Alabama to $99.40 in New Jersey (except for $7.06 in Puerto Rico). Limited funds and stringent standards applied in determining the degree of destitution before general assistance is granted result, in many instances, in a level of subsistence far below even a minimum standard of "health and decency."

Total assistance payments in fiscal 1959 were $323 million higher than in fiscal 1958 ($3,574 million compared with $3,251 million). But average payments per recipient in June 1959 compared with a year earlier showed increases of only $3.38 in old-age assistance, $2.32 in aid to the blind, $2.68 in aid to the permanently and totally disabled, $1.11 in aid to dependent children, and $4.22 *per case* in general assistance. Some of the increase in total expenditures was due to the increased number of persons receiving assistance, but part of it was related to the availability of additional Federal funds under amendments to the Social Security Act in 1958.

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Use by States of additional Federal funds in 1958.—Most States used the additional funds to increase individual payments, and more than half the States with maximums on individual payments in old-age assistance, aid to the blind, and aid to the permanently and totally disabled either increased or removed their maximums; fewer States took similar action in aid to dependent children. A few States eliminated reductions that had been applied to payments or made the reductions less stringent. Most States also revised their cost standards to reflect current prices to a greater degree, and a few States added new items to their assistance standards. This use of additional Federal funds available October 1, 1958, was reflected in increases in average payments per recipient from September 1958 (the month immediately preceding its availability) to December 1958 of $2.37 in old-age assistance, $1.28 in aid to the blind, $1.66 in aid to the permanently and totally disabled, and $.82 in aid to dependent children.

Many receive both assistance and social insurance benefits.—Public assistance is used to supplement social insurance benefits that are not large enough to meet the beneficiary's basic needs. It is also used to meet special needs, such as medical care, of those whose insurance benefits and other personal resources are insufficient to meet this additional expense.

The number of beneficiaries receiving old-age assistance to supplement their social insurance benefits continued to increase. About 27 percent or 660,000 persons were receiving old-age assistance to supplement social insurance benefits in June 1959. The average assistance payment supplementing benefits in March 1959 (the latest date for which data are available) was about 25 percent lower than payments to other aged persons ($51.97 compared with $68.74). Similarly, the insurance benefit received was about 35 percent lower than the average benefit for all aged beneficiaries, with a considerable number getting no more than the minimum benefit. A survey in 1957 of beneficiary resources shows that, for the beneficiaries studied, it was only when assistance was added to their benefits and other resources that the total income per beneficiary-recipient approached the average for all aged beneficiaries. The same survey reveals that in comparison with other aged beneficiaries, more of those also receiving assistance were in poor health and therefore more likely to have high medical costs and a higher incidence of hospitalization, but had little or no income from earnings, assets, or contributions from relatives.

In contrast to old-age assistance, however, the percentage of recipients of other types of public assistance who also receive old-age, survivors, and disability insurance benefits is considerably smaller. Although the number of families receiving both insurance benefits and aid to dependent children has increased in the last year, the

proportion they represent of all aid to dependent children families remained the same. The 41,900 families receiving both insurance benefits and aid to dependent children represented 5.4 percent of all families receiving aid to dependent children in March 1959.

Similarly, the number receiving both assistance and insurance benefits is estimated to be only about 8 percent of those receiving aid to the blind and 5 percent of those receiving aid to the permanently and totally disabled. Although many of the assistance recipients in these two programs meet the disability requirements for insurance benefits, very few have the necessary work experience to qualify for benefits. Also, since half of the needy blind are 65 years of age or over, the majority of the 8 percent also receiving insurance benefits are undoubtedly receiving benefits for reasons other than disability since the age requirement for disability insurance is between 50 and 65 years of age.

Source of funds for public assistance.—Of $3,574 million expended for public assistance in fiscal 1959, about 52 percent or a little over $1,848 million in Federal funds supplemented 36 percent, or $1,281 million from the States and 12 percent, $445 million, from the localities for old-age assistance, aid to dependent children, aid to the blind, and aid to the permanently and totally disabled. The States and localities alone paid the estimated $426 million spent under general assistance programs.

For the special types of public assistance, the Federal share of total costs was 59 percent; the State share, 33 percent; and the local share, 8 percent.

Program and Administrative Developments

Program developments in public assistance are closely related to public concern with economic and social factors contributing to dependency and to the increasing recognition of the long-run economy of activities directed toward prevention and rehabilitation. These objectives are emphasized in the 1956 amendments to the Social Security Act which reaffirmed the importance of providing other social services to help needy people make fuller use of their capacities for more independent living; and in the 1958 amendments which made possible increased Federal participation in financial assistance to needy people.

Through joint Federal-State efforts during the past year considerable progress has been made in utilizing the 1956 and 1958 amendments to strengthen State public assistance programs and thus to serve needy people more effectively. These efforts are reflected especially in activities directed toward extending medical care to public assistance recipients.

Improving medical care for public assistance recipients.—A large proportion of persons receiving public assistance have unusually heavy medical needs resulting from disability, chronic illness, or the infirmities of old age. Some are forced to seek assistance primarily because they need medical care. In June 1959, the federally aided public assistance programs were helping 1.6 million persons whose need was attributed primarily to disability, chronic illness, or severe infirmities of old age. This number included 339,000 persons receiving aid to the permanently and totally disabled; 109,000 persons receiving aid to the blind; 756,000 persons receiving aid to dependent children because of need due to the incapacity of a parent; and some 431,000 old-age assistance recipients—nearly a fifth of the total—who were bedridden or required a substantial amount of care from others because of some physical or mental impairment. In addition, a substantial proportion of the other 2 million aged recipients caring for their own daily needs no doubt had health and other problems related to advanced age.

Traditionally, public welfare agencies have provided some medical care to needy persons through staff or "county" physicians, by operating institutions, or by paying for medical care. Until 1950, medical care costs could be paid in part from Federal funds only if these costs were included in money payments made to recipients. In 1950, an amendment to the Social Security Act also permitted Federal financial participation in costs of medical and remedial care paid on the recipient's behalf to suppliers of services—hospitals, doctors, druggists, nursing homes, etc. The quantity and quality of medical care that could be provided to assistance recipients, however, were affected to some extent by State and Federal maximums on individual assistance payments.

An amendment in 1956 provided Federal financial participation in vendor medical payments separately from money payments up to one-half of the sum of $6 multiplied by the number of adult recipients and $3 multiplied by the number of child recipients per month. This proved an impetus to extend medical care provisions for needy people. Some States began to pay the cost of some medical services, and others expanded their existing medical care provisions. The use of an average in determining the amount of the Federal share also made it possible to meet larger medical care expenses in individual cases. Of special significance are the 1958 amendments which changed the basis of Federal financial participation in State expenditures for public assistance by relating the Federal share to an average expenditure per recipient including both money payments to recipients and direct payments to vendors of medical care. This is resulting in further increases in the availability of medical care.

Although demands for medical care are very great, in developing medical care provisions States have had to exercise caution so as to maintain a balance between expenditures for basic maintenance and for medical care. Among other considerations, they had to decide whether to provide funds for medical care for all recipients or only for those receiving assistance under specified programs, the items of medical care for which they would pay, whether the care would be limited to one or two items or cover the cost of a full range of medical services, whether all or only a portion of the medical needs of a recipient would be met, and whether payments would be made to recipients or directly to suppliers of medical care services. The decisions made were heavily influenced by the availability of funds.

In addition to technical assistance given by Bureau staff in developing a plan of administering provisions for medical care, some States, often with the help of State medical societies, made studies to determine the areas of greatest need. Others were assisted by advisory committees including professional medical people. Many State agencies consulted organized groups of suppliers of medical care services.

All jurisdictions but Arizona and Puerto Rico provided for some medical care under their public assistance programs in January 1958; in Puerto Rico medical care needs were met by the Health Department. The items of medical care provided include practitioners' services, hospitalization, drugs, nursing-convalescent home care, dental services, nursing services, clinic services, prosthetic appliances, ambulance (or other transportation), laboratory, and X-ray services. However, not all of these services were provided by all States.

Relatively comprehensive medical care was provided in only 10 States; in most of these, payments were for remedial rather than preventive services. The other jurisdictions paid for only a few medical services—some, for example, provided for hospitalization only for life-endangering conditions. In January 1958, nursing-convalescent home care was the item included most frequently for adult categories, and drugs, the item most frequently included in the aid to dependent children program. Nursing services provided by registered or practical nurses in the recipient's home was the item supplied least often.

In June 1959, 42 States provided for medical care services through the vendor payment method. Most of these agencies paid the suppliers of the care directly, but a few had arrangements with other agencies, such as the State public health department, Blue Cross, or Physicians' Service organization, to act as their agents. In June 1959, 16 States used a "pooled fund" to make vendor payments for medical care under one or more of the special types of public assistance.

In fiscal 1959, $314 million was paid directly to the suppliers of

medical care services on behalf of recipients of the four State-Federal programs. The average vendor payment for all recipients (both those receiving money payments and those having only vendor payments made in their behalf), by program, in June 1959 was $8.94 for the aged, $5.34 for the blind, $9.93 for the disabled, and $1.66 per recipient for aid to dependent children.

Since most medical payments, except for costs of nursing home care in some States, are made to vendors, the following analysis of vendor payments for fiscal 1959 is indicative of the items of medical care being provided. Hospitalization costs represented by far the largest part of medical care expenditures; costs of nursing and convalescent home care, the second largest share; drugs and supplies, third; and practitioners' services, fourth. About 52 percent of the expenditures for vendor medical care payments in the five public assistance programs were incurred for the aged, 23 percent for general assistance cases, 14 percent for aid to dependent children families, 9 percent for the disabled, and 2 percent for the blind.

Although considerable progress has been made in recent years in providing medical care services for needy persons, both in quality and quantity, the need is still considerable. Further study is also needed on how best to utilize the money now available for medical care purposes. For example, nursing home care is a very costly kind of medical care service, and according to national and State studies, at least half the persons in nursing homes and homes for the aged are public assistance recipients. Yet studies conducted by the Public Health Service and by individual States indicate that close to 50 percent of the aged in nursing homes could be cared for more appropriately in their own or in foster homes. The many aged persons who are in nursing homes, however, will probably remain there until provision can be made for other living arrangements more suited to their needs.

To make more effective use of nursing home care, the Bureau has been working with the Public Health Service in planning and conducting regional meetings on nursing homes and homes for the aged for representatives of State welfare and health departments to discuss ways of achieving common objectives. Other Bureau activities have included participation in a joint Social Security Administration-Public Health Service Committee to plan for providing technical assistance to States in other areas of mutual concern, participation in the Medical Care Committee of the American Public Welfare Association in the development of a statement on "The Physician in the Public Welfare Agency," and working with its Subcommittee on Medical and Medical-Social Recording in developing a guide for public welfare agencies on the recording of medical and medical-social information.

A 2-day meeting of an ad hoc Medical Advisory Committee to the Bureau was also held in Washington, including representatives from 15 State public welfare agencies and staff from other constituent units of the Department, to develop a definition of "medical care" and "remedial care" in the administration of the medical assistance provisions of the public assistance programs. Consultation in the medical care area and other medical-social eligibility aspects of the public assistance programs was given during the year by Bureau staff both to State agencies and other groups concerned with provisions of medical care for assistance recipients.

Strengthening other social services.—Progress made in strengthening other social services is reflected in the provisions of the States' services plans developed in 1957, following the 1956 amendments to the Social Security Act reaffirming the importance of providing social services to help needy persons make fuller use of their own capacities for more independent living.

The problems most frequently identified for which States would provide services, in the order named, were those health, employment, housing, family relations, and children's problems which required short-time or tangible services. The problems least frequently identified for which services would be provided were those emotional problems of members of broken families, unmarried parents, or the ill which required more intensive casework service or other help over longer periods of time. Almost all emphasized the use of other community resources, with particular emphasis on cooperation with State vocational rehabilitation services and employment services. Many States recognized special responsibility for children and other persons in hazardous situations, and for community planning although only a few assigned staff specifically to the latter area.

Because of limitations in staff qualifications and time, many States attempted to define responsibility for services realistically, either by limiting the problems for which services would be provided, limiting the scope of services to those required in the determination of eligibility for money payments, or limiting services to those that could be provided during regular contacts for eligibility purposes. With better administrative planning, some States are gradually offering services to larger numbers of families and individuals.

In addition to the help given through the day-by-day activity of regular staff, a few States have also developed special services, such as homemaker services, volunteer service units, and foster home care for the aged. Some States are augmenting the skills of their casework staff with consultant services from medical social workers, home economists, and other specialists. Special projects in a few agencies are demonstrating the potential value of providing appropriate serv-

ices, and the benefits of cooperative effort among public and voluntary agencies and other community groups. There are also other evidences of increasingly effective utilization of community resources.

Broad guidelines have been established by the Bureau to help the States strengthen the service aspects of their programs. Emphasis has been on administrative planning to assure statewide provision of services, as well as development of policies and guides that are realistic in view of workloads, skill of staff, and the availability of supporting functions of consultation, supervision, and staff development. In addition, a plan was initiated for discussion with each State to determine specific areas in which further Bureau help was needed. The Bureau has also been working with other units in the Department and with national voluntary social agencies both in the utilization of available resources and in the development of additional needed services.

During the past year, for example, in developing services for the aging, Bureau staff worked with the Department's special committees in planning for the White House Conference on Aging, and participated in the National Leadership Training Institute held at the University of Michigan in preparation for the Conference; with the American Public Welfare Association's Committee on Aging in developing statements on social service needs of older people and on the community planning responsibilities of public welfare; and with the National Social Welfare Assembly's Committee on Aging in developing a project directed toward protective service needs of older persons, and in planning a seminar on social services for older people in the fall of 1959. There was also participation in a meeting of all national agencies concerned with aging called by the National Social Welfare Assembly.

Continuing effort to promote the use of homemaker service is evidenced in the Bureau's cooperative work with the National Committee on Homemaker Service, and in its participation in the second National Conference on Homemaker and Related Services held in February 1959 under the joint sponsorship of constituent units in the Department and many national voluntary social and health agencies. To deal more effectively with emotional problems of needy persons and strained relationships, the Bureau has initiated work with the Department's National Institute of Mental Health, and joint efforts have continued with the Family Service Association of America.

Further work has continued with the Children's Bureau toward utilizing the full potentials of both aid to dependent children and child welfare services programs in dealing constructively with the factors contributing to the dependency of children. A policy statement has been developed clarifying the functions and responsibilities

of each program in providing services to children in their own homes, the ways in which the two programs work cooperatively in providing these services, and the allocation of costs of services to children in families receiving public assistance. A working group from both bureaus is also developing a plan of cooperative activity to promote better understanding of the factors involved in illegitimacy and to identify State administrative planning essential to provide effective services in dealing with the needs and problems of unmarried mothers and their children. In addition, the two bureaus are planning to provide joint consultation to State agencies in areas of mutual concern.

Similarly, joint planning by the Bureau and the Office of Vocational Rehabilitation continues to strengthen the relationships between these two programs in the States and to make more extensive use of vocational rehabilitation resources. Bureau staff also participated in the departmental consideration of proposals relating to extension of programs for rehabilitative services and in developing proposals for extending such services through public welfare agencies, as well as in departmental consideration of program goals on community planning. Material was prepared on the considerations involved in working with individuals and families whose condition seriously affects their ability to manage their personal affairs, and in clarifying the role of public assistance in providing services to older people.

Study of many facets of the broad range of problems contributing to dependency, the pooling of the knowledge, skills, and resources of many related professions and disciplines, and emphasis on the broad rehabilitation potentials of public assistance programs are beginning to show results in many States. But low assistance standards, heavy workloads, lack of professional training of most staff, and the dearth of community resources limit opportunities to provide extensive services. States are therefore giving more attention to methods for improving staff competence and other administrative planning that will facilitate the provision of services.

Efforts to improve staff training and skill.—Since 1937, some States have made limited use of Federal funds for sharing costs incurred in granting educational leave to employees; others have not. In 1950, only about 23 percent of the 30,000 persons employed in social work positions in State and local public assistance agencies had some social work training, but less than 4 percent had completed graduate work. Although Congress, in 1956, authorized appropriation of Federal funds to better assist the States in meeting the costs of training, funds have not been appropriated to implement this amendment.

At first, anticipation of specific Federal funds for training resulted in changes in some State laws and increased State appropriations to

enable participation in the new Federal training provisions and evaluation of staff needs and long-range planning for staff development in many States. Efforts to improve the skill of some personnel were increased. By 1959, 39 State public assistance agencies had 402 people on educational leave (283 with and 119 without pay) at schools of social work.

With no funds available under the 1956 authorization for training, other alternatives of increasing staff competence and making more effective use of professionally trained staff are being explored. An example of the latter is the work initiated on the Educational Standards project to define appropriate job functions in relation to the educational background of public assistance staff. To further this effort, Bureau staff have been working with an advisory committee representing State public welfare agencies, schools of social work, the Department's Division of State Merit Systems, national social welfare organizations, and other Federal agencies to consider differential use of staff with varying educational background, and how best to test the use of workers with full graduate professional training and those with an undergraduate academic degree.

In addition to providing technical assistance requested by 15 State agencies and 5 schools of social work, the Bureau issued a report on "Staff Development as an Integral Part of Administration." Bureau staff participated in the consideration given to the training needs of staff in providing services for the aging by the Council on Social Work Education and the American Public Welfare Association's Committee on Social Work Education and Personnel, as well as other aspects of training by these groups and the National Association of Social Workers' Commission on Education. Bureau staff also participated in an interbureau training committee with the Children's Bureau in clarifying basic principles relating to staff development and other areas of common concern.

Efforts to improve administrative and fiscal methods.—Heavy workloads limit the opportunity to provide services in many instances. For example, in the old-age assistance program in 1958, 27 States had average caseloads per worker of more than 200 (in 19 of these States they ranged from 255 to over 500); and in aid to dependent children, 20 States had average caseloads of more than 100 (in 6, they ranged from 158 to 237). Continuing attention was therefore directed to working with States on needed improvements in organization, staffing patterns, and workload management to permit the best service possible within staff time available. A number of States also attempted to simplify their standards of assistance.

In addition to providing technical assistance requested by 11 States and making 6 management surveys of specific State situations, a con-

ference on workload standards and management was held in Washington, D.C., with State agencies in Region III; and a biregional conference (Regions VIII and IX) on administrative management of large urban agencies in San Francisco, with representatives from 5 States and 7 large urban areas, focused on workload distribution and staffing patterns, workload management, and analysis and simplification of procedures. A conference was held in Washington, D.C., with a group of State welfare finance officers on the use of mechanical processing equipment and other methods for efficient fiscal operations in public assistance administration. Bureau staff also participated in regional conferences of the American Public Welfare Association in sessions on administrative management methods and procedures for work improvement.

Guide materials are being developed for State agency use in (a) developing a State system of written instructions, (b) case recording, and (c) conducting organization and management surveys of State and local agencies; and a statement is being prepared on State supervision of local agencies. Two publications were issued in the "How They Do It" series: "Guides for County Boards," using material from Indiana and Iowa, and "Simplification of the Caseworker's Job," using material from Maine.

Other administrative developments.—To assure that Federal grants were spent by the States for the purposes for which they were appropriated, Bureau staff made administrative reviews of State and local operations in 25 States. Significant review findings were summarized for administrative use by Bureau and State agency staff. Also, technical assistance was provided to several States in making their own reviews of administration and in using their findings.

Growing interest in public assistance and concern especially with the social problems highlighted in the aid to dependent children program were evidenced by an increasing number of requests for information from individuals, organizations, writers, journalists, Members of Congress, and other agencies. An exhibit, "Your Whole Community Benefits," was prepared for use at national and State meetings. Materials interpreting aspects of the program were developed and made available to schools of social work, State and local agencies, and other interested individuals and groups.

Related Social Welfare Activities

As part of the Bureau's broad public welfare responsibilities, participation has continued (1) in international social welfare developments, and (2) in planning for emergency welfare services, services to repatriated American nationals and to refugees from other parts of the world.

International activities.—The Bureau Director continued to serve as chairman of the Interdepartmental Committee on International Social Welfare Policy. Bureau staff also participated in the preparation and review of technical materials for use at United Nations and other international meetings, such as the United Nations expert group on social welfare meeting in January 1959; in planning the National Social Welfare Assembly's international workshop in Washington, D.C., in October; and in preparing a fact sheet relating to voluntary and public agency activities in resettling refugees and immigrants. A Bureau staff member was one of the Social Security delegation (part of the East-West Exchange arranged by the Department of State) to the U.S.S.R. to study the Soviet system of social security. She also participated in conferences with the Soviet team on their return exchange visit.

Bureau staff in regional offices provided consultation and planned or arranged observation programs in cooperation with State and local public and voluntary welfare agencies for visitors from 34 countries. In the central office, staff specialists continued to provide consultation to foreign visitors and to international groups referred by various Government agencies.

Emergency welfare services.—An allotment of limited funds to the Department by the Office of Civil and Defense Mobilization under Reorganization Plan No. 1 of 1958 and the Independent Offices Appropriation enabled the Bureau to resume activities on previously delegated defense programs of emergency financial assistance and emergency clothing; and to participate with the OCDM in activities and resumption of negotiations relating to the Social Security Administration's assumption of basic responsibility for the full range of emergency welfare services.

Bureau staff worked with the OCDM in the development of an Annex on Emergency Welfare to the National Plan for Civil and Defense Mobilization; and with the OCDM and the SSA in drafting proposals for Department responsibility in emergency welfare services. Staff participated in Civil Defense Operation Alert 1959 (regional relocation phases) and in planning for the national relocation phase in August.

Services to refugees and immigrants.—A Bureau staff member served on the departmental Committee on Refugees and Immigrants which is planning for the implementation of the report of the departmental Task Force. The Bureau representative attended a meeting with an ad hoc committee of national voluntary agencies concerned with refugees held in New York City in February 1959, and assisted in the development of statements and position papers on legislation and program planning for services to refugees and immigrants.

Repatriation of American citizens.—The Bureau has continued to assist the Department of State in arranging for the reception and care of repatriated American nationals who need special help upon arrival in this country. During fiscal 1959, services were requested for 215 such persons. Their most pressing needs were for funds for transportation beyond the port of entry and provisions for hospitalizing mentally ill repatriates who have no State residence.

Culminating a long period of program development and interdepartmental negotiation, draft legislation was submitted to the Congress to provide a statutory base and appropriation authority to enable the Federal Government to assume its proper share of the expense of these services. Similarly, interdepartmental negotiations have facilitated joint work between the Bureau's regional staff, Army Port Commanders, and selected State and local public welfare authorities in implementing program and maintaining standby readiness.

Children's Bureau

Some Facts and Figures About Parents and Children

Since 1954 the annual number of live births has exceeded 4 million. The number decreased very slightly in 1958 and the provisional crude birth rate also dropped to 24.5 per 1,000 population. Nevertheless, both numbers and rates are well above the level of the 1930–40 decade.

The estimated number of children under 18 in the civilian population of the United States in 1958, excluding Alaska and Hawaii, was over 61 million, or 35.7 percent of the total population.

Provisional statistics indicate that the infant mortality rate increased again slightly in 1958. Thirty-one States experienced an increase as compared with the previous year.

For children age 1 year to 20, accidents are the leading cause of death at all ages; for children age 5 and over, cancer is second among leading causes.

Births out of wedlock continue to increase. The reported number for 1957 was 201,700; the ratio per 1,000 live births increased from 46.5 to 47.4 and the rate per 1,000 unmarried women age 15–44 years from 20.2 to 20.9. Forty percent of the unmarried mothers in 1957 were under 20 years of age.

In March 1958, nearly 7.5 million mothers with children under 18, about 29 percent of such mothers, were in the labor force. Nearly 3 million had children under 6, a little over 20 percent of such mothers.

Most children under 18, at least 87 percent of them, have a home with both parents. But in 1958 of the 25.8 million families with children under 18, about 11 percent or 2.8 million were broken homes. Most of these, 2.4 million, were homes in which only the mother was present.

Juvenile delinquency court cases more than doubled between 1948 and 1957 while the child population in the vulnerable age group—10 through 17—increased by only 28 percent. In 1957 there were more than 600,000 cases of delinquency involving about 520,000 children.

Major Bureau Trends

In fulfilling its special charge from Congress to be the focal point of Federal concern for child life and the well-being of the Nation's children, the Children's Bureau marked 1959 as a year of peak activity in many areas.

In the cooperative Federal-State programs for maternal and child health, crippled children and child welfare, for which the Bureau administered grants to the States totaling $43,500,000, the burgeoning child population placed capacity demand upon all forms of services. Through its publications and reports the Bureau provided a maximum volume of information about child life and services to children. Congress voted the Bureau a supplemental appropriation of $1,500,000 in crippled children's funds for services for children with congenital heart disease.

The year 1959 was also marked by events which forecast significant developments in the future. Planning for the 1960 White House Conference on Children and Youth occupied a major portion of Bureau effort and staff time. Under congressional mandate, the Bureau was actively participating in the preparation of two wide-reaching reports due in Congress by January 1, 1960—that of the Advisory Council on Child Welfare Services and the Joint Children's Bureau-National Institute of Mental Health Study of Juvenile Delinquency. The Bureau participated in the presentation of testimony on a number of important legislative proposals, such as those relating to the protection of children from abroad who are adopted by American citizens, a program for international health research, and juvenile delinquency. At the request of Congress, the Bureau was exploring means to further aid the immunization of children against polio.

As statistics showed a continuing rise in illegitimate births, the Bureau undertook, with the Bureau of Public Assistance, to draft a plan which would promote better understanding of factors involved in the problem and to improve public welfare services for unmarried parents. At the same time, it gave renewed support to strengthening

two relatively undeveloped social instruments—homemaker service and day care.

The National Conference on Homemaker and Related Services climaxed a 2-year joint effort of public and voluntary agencies to promote this program. With the Women's Bureau, Department of Labor, the Children's Bureau made a joint survey of the resources of national organizations with day-care services.

1960 White House Conference on Children and Youth

In May 1958 the President announced March 1960 as the date for the Sixth White House Conference on Children and Youth and asked the Secretary of the Department of Health, Education, and Welfare to invite State and Territorial Governors to appoint special committees to begin a stocktaking on problems of the young. Such a conference has been held every 10 years since President Theodore Roosevelt convened the first in 1909.

The President asked the Children's Bureau to serve again as the focal point in the Federal Government for the conference planning. The Council of National Organizations, the National Council of State Committees on Children and Youth, and the Interdepartmental Committee on Children and Youth are among the organizations cooperating with the White House Conference staff.

Hundreds of thousands of citizens, both adults and young people, have been enlisted to work on State and local committees for the 1960 White House Conference. They are making it clear that they see the Conference also as a forum for an exchange of critical views on American values and on the American way of bringing up children.

The material coming to the White House Conference staff from the States reflects a general concern with the effects of rapid change on children and youth—change both in the past decade and in the years to come. Reports of State Committees reveal that to help children and youth "realize their full potential for a creative life in freedom and dignity" responsible adults feel the need to define and maintain the moral and ethical values of our society as against the material ones; to raise our educational standards and to broaden and improve educational opportunities for all kinds of children and youth, whether gifted, handicapped or average. They are particularly concerned with the need for strengthening family life.

Increasing concern is being given to groups of children with special problems which seem to have increased and to have been aggravated in the past decade—youth in conflict with society; children and youth who are physically, mentally, emotionally, or socially handicapped; children who are neglected or deserted; children who drop out of

school for lack of adequate training or adequate guidance. There is concern also about youngsters who marry too young; and about youngsters who seem to have little sense of responsibility, few values or goals, and few interests other than themselves. State Committees see the White House Conference as a great opportunity for focusing public attention on these needs and for building mechanisms to meet them.

In an address to the National Conference on Social Welfare, May 25, 1959, Mr. Ephraim Gomberg, Director, White House Conference, said:

> . . . We refer to the White House Conference on Children and Youth as a *process* rather than a 6-day series of meetings—a process in which citizen *preparation*, citizen *financing*, citizen *participation* and citizen *followup* underpin every bit of the comprehensive planning now underway.
>
> The 6 days of meetings in Washington are not the Golden Anniversary Conference. Rather they are the focal point of interest in 1960—the view from the mountain top after 12 months of preparation and climbing. Those 6 days are intended to provide a memorable view, a perspective, a forum for discussion, a classroom of learning. But they will be followed by 10 years of preparing for and of scaling other mountains of achievement in communities and States. . . .

Federal Interdepartmental Committee on Children and Youth

The Interdepartmental Committee on Children and Youth, established in 1948 to provide an opportunity for the exchange of information among Federal agencies with program interests in children, has held regular monthly meetings during the past year. Among the subjects presented for discussion were: the cooperative extension program, marriage and divorce trends in the United States, the program for aid-to-dependent children, and research progress in mental subnormality.

The Interdepartmental Committee was requested by the President's National Committee for the 1960 White House Conference on Children and Youth to serve as the main channel for Federal agency participation in the forthcoming White House Conference. This assignment involves providing Federal agency participation in policy and program determination for the Conference, in keeping Federal agencies informed of developments in Conference planning, in making available to the White House Conference the knowledge, resources and experience of Government agencies and in post-Conference followup activities.

One of the major activities of the Interdepartmental Committee has been the development of a chart book on children and youth to be published for use at the 1960 White House Conference.

The National Council of State Committees for Children and Youth, with which the Interdepartmental Committee has a close relationship, held a workshop in Washington, D.C., January 15–16, 1959, on State

preparation for the 1960 White House Conference. One hundred four representatives of 41 State Committees participated along with members of the Children's Bureau, the White House Conference staff, and representatives of many of the ICCY agencies.

Programs of the Bureau

RESEARCH IN CHILD LIFE

Research activities of the Children's Bureau take a variety of forms. One study concerns situations, conditions, or processes to furnish information—and sometimes ammunition—for promoting the welfare of children. An example is a study, begun in 1959 in cooperation with National Office of Vital Statistics, on the incidence of cystic fibrosis. The first phase provided national estimates of hospitalized cases during 1952–53. The second phase is a pilot study to develop methodology for a national survey (Phase 3) of cases known to physicians in their private or clinic practice.

Other special studies completed or in process in 1959 were the followup of 500 nonagency adoptions; the analysis of staff turnover in child welfare and family agencies; a study, made in cooperation with the Bureau of the Census, of child care arrangements by working mothers; the application of "performance budgeting" reported in *Cost Analysis in Child Welfare Services.* In this same category are plans now under way for community studies to fill a yawning information gap about the beliefs and behavior of American teenagers who do *not* present acute problems—as a basis for more effective approaches to juvenile delinquency and other youth difficulties.

Another type of activity draws on research done by others. A preliminary roundup of research bearing on the effects of having mothers work outside the home was issued in 1959 for staff use only, pending final editing. An analysis of efforts to evaluate psychosocial change in individuals was presented in *Some Guide Lines for Evaluative Research.* More strictly on the reporting end, Bulletins 8 and 9 of *Research Relating to Children* carry on the Bureau's running inventory of current nonmedical research.

The Bureau also gathers or compiles statistics for use by a wide public, inside and outside of Government. Seven numbers of the ongoing *Statistical Series* (Nos. 48–54) were completed during the fiscal year, covering various aspects of juvenile delinquency and child health and welfare. *Trends in Programs Administered by the Children's Bureau* was revised and an edition issued for the 1960 White House Conference. Major staff assistance was given to the chart book for the Conference, a compilation of statistical data about children, prepared by the Interdepartmental Committee on Children and Youth.

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Staff members also worked with States and national organizations in improving data-gathering methods and reporting forms relating to such concerns as maternal and child health, mental retardation, police reporting of juvenile delinquency, institutional child populations, etc., and gave research consultation or participated in working groups for State and local departments and for national organizations concerned with the welfare of children.

Impetus to research developments was given by staff members through more than a score of articles, papers and reports published in professional journals widely circulated among the many practitioners, teachers, and scholars who look to the Bureau for information about what is done, learned, and needed with regard to the well-being of children.

MATERNAL AND CHILD HEALTH SERVICES

All States, the District of Columbia, Puerto Rico, and the Virgin Islands receive Federal funds to extend and improve services for promoting health of mothers and children.

For the fiscal year 1959, the appropriation for maternal and child health remained the same, that is, $16,500,000, with $1 million earmarked for services to mentally retarded children.

Ongoing programs of the State maternal and child health agencies continued to make major contributions to the health of the Nation. State maternal and child health reports showed that about 257,000 mothers received services at maternity medical clinics in 1958. In addition, public health nurses served 554,000 mothers before or after delivery.

About 601,000 infants and 826,000 other children received health supervision through well-child clinics. In addition, health department programs provided nursing service for over 3,018,000 infants and other children.

Over 2,700,000 children were vaccinated for smallpox, and over 3,100,000 were immunized for diphtheria by State and local health departments through grants provided by the maternal and child health programs. Polio immunization through these programs reached 5,100,000 children.

Activities and services of maternal and child health programs on behalf of mentally retarded children and their families continued to expand in 1959. Of 44 State health departments offering special services to the retarded, 36 reported serving 6,704 children and their families during the past calendar year. There was a steady movement toward earlier casefinding and identification; 30.3 percent of the new cases seen during the year were under 4 years of age and 74.6 percent were under 9 years of age. Applications continued to exceed the capacity of the centers to accept children for diagnosis, evaluation, and

treatment, but new methods of reducing waiting lists are resulting in services to a larger number of families. More selectivity and flexibility in the use of diagnostic approaches, more efficient use of local resources, greater stress on training local generalized personnel, and assignment of preliminary screening responsibility to local services are some of the techniques being used.

During the year three biregional conferences were held. These involved the administrative and technical clinical staff in six regions and afforded an opportunity for exchanging information and sharing ideas and experience.

A highlight of the year was a meeting of the Children's Bureau's Technical Committee on Clinical Programs for Mentally Retarded Children called primarily to discuss an action program to prevent the mental retardation associated with phenylketonuria. As a result guides for screening and treatment of affected children are being developed. The recommendations made by this Committee were subsequently endorsed unanimously by the American Association for Mental Deficiency.

Pilot studies to identify affected families are already in progress in several States, among them Michigan, Oklahoma, and California.

After 22 years of decline, infant mortality rates rose from a record low of 26.0 in 1956 to provisional rates of 26.4 in 1957, and 26.9 in 1958. Concern over this increase in infant mortality has resulted in efforts to pinpoint specific causes, or at least to determine whether certain areas or groups in the population are chiefly responsible for the rise. As a result of several studies which show an association between lack of prenatal care and increased neonatal mortality, a number of States and cities have established new clinic facilities for maternity patients in areas inadequately covered.

Partly as a result of higher neonatal mortality and partly because of interest in controlling hospital-acquired staphylococcal infections, consultation by maternal and child health personnel to hospitals is increasing. Some States have been able to employ new staff for this service. A number of States report that the number of requests for hospital consultation exceeds their ability to meet these requests. A number of State health departments have published new hospital manuals emphasizing the care of newborn infants and the control of infections in nurseries. A number of institutes on this subject were held in the States during the past year.

Interest in special problems of the adolescent has taken concrete form in the development of services for this age group. A number of new clinics for adolescents were started during the year. Although all these clinics are essentially medical clinics, a very broad service to adolescents is being offered, including help with social, emotional and intellectual problems.

Since a high percentage of accidents involve children, a number of State maternal and child health divisions now employ personnel specifically assigned to accident prevention and poison control activities. During the year a number of studies of childhood accidents were made by these States to find clues for prevention.

As in former years a great deal of attention has been given to training professional persons who serve mothers and children. Two important conferences were held at schools of public health. An Institute on Perinatal Casualties was held at the University of Minnesota in cooperation with the University of Michigan and the maternal and child health and crippled children's agencies of the two States. A regional conference on child growth and development was held at the Johns Hopkins University School of Public Health in cooperation with the Maryland State Department of Health.

Institutes for physicians and nurses on the care of premature infants were given at the New York-Cornell Medical Center. The faculty from this Center also led institutes in neighboring States. Other courses in the care of prematures were given in various parts of Florida by the staff of the premature center in Miami.

CRIPPLED CHILDREN'S SERVICES

All the States (excepting Arizona), the District of Columbia, Puerto Rico, the Virgin Islands, and Guam are participating in the crippled children's program. Although the State agency auspices vary, the objective is uniform, namely: to locate children who require care and to provide restoration through diagnosis, medical and surgical treatment, and alleviation of unfavorable social and psychological influences which adversely affect the degree and duration of the disability. The appropriation for crippled children's services is $15 million, $5 million less than the amount authorized.

A new peak was reached in 1958 in the number of handicapped children served under federally aided programs, preliminary figures from State reports indicate. Of the 325,000 children cared for during the year, 255,000 were examined in clinics; about 71,000 received physicians' services through home or office visits. About 53,000 children were hospitalized. Convalescent home care was given to the smallest group, around 3,800.

Shortage of funds continued to plague the crippled children's program. Not only were medical care costs higher but caseloads were heavier due to an increasing child population, to relatively larger numbers of children in low-income families, to extension of services to new categories of children, to improved casefinding, and to advances in therapy making a larger number of children amenable to treatment. In a few States a larger number of families were unable to pay for private care because of unemployment.

In many States crippled children's programs have had to be curtailed because of insufficient funds at the very time demand for services is increasing, particularly in areas where programs have been improved, where services provided have not been available previously, and where new developments in medical diagnosis and treatment are being applied. These include such diagnostic categories as congenital heart disease, speech and hearing defects, cleft lip and cleft palate, and neurological impairments.

Among the States where services have been curtailed, except for the most urgent or severe problems, are Colorado, Idaho, Montana, Wyoming, Kentucky, and North Carolina. Three States established waiting lists for surgery beginning in the third quarter; Missouri, Puerto Rico, and West Virginia have long waiting lists. Should this trend continue, the number of children whose severe and permanent disability could have been prevented or alleviated will undoubtedly increase. Further, extension of services to children with malignancies, cystic fibrosis, nephrosis and other metabolic diseases will not be possible.

The pressing need for crippled children's funds was alleviated somewhat this spring when Congress earmarked $1½ million for fiscal years 1959 and 1960 for care of children with congenital heart disease.

Beginning in 1939, when the increased crippled children's appropriation was made in part so that rheumatic fever programs could be developed, Congress has shown a preference for appropriations given for specific purposes. This was also demonstrated in 1957 when $1 million of maternal and child health funds were earmarked for programs for mental retardation.

States are increasingly aware of the needs of multiple handicapped children such as the deaf-blind. During the year the Children's Rehabilitation Unit of the University of Kansas Medical Center evaluated nine such children and through their efforts the State legislature passed a bill providing out-of-State education for severely handicapped children such as the deaf-blind for whom special educational opportunities are not available in Kansas.

During the year a conference was held at the Child Amputee Center, Grand Rapids, Mich., sponsored by the National Research Council's Committee on Children's Prosthetics Problems, and the Children's Bureau, to which were invited the directors of 12 major child amputee clinics. Agreement was reached on areas of clinical program studies to be carried out cooperatively by all 12 clinics. This includes testing a new artificial leg, studying problems of fitting artificial arms, and studies of the optimal age for fitting babies with artificial arms.

The Harvard School of Public Health, in cooperation with the

Children's Cancer Research Foundation and the Massachusetts Department of Public Health, sponsored an institute on leukemia and other malignant neoplasms in childhood for maternal and child health and crippled children's directors. The importance of early diagnosis was stressed and the newer medical and surgical treatments which have improved prognosis for cancer in children were discussed.

The availability of services in the congenital heart programs has led to the discovery of many children previously unrecognized. In 1950, 2,207 children received physicians' services for congenital heart disease under State crippled children's programs; in 1958, 12,164 (preliminary), nearly 6 times as many. The rapid and brilliant scientific advances which have occurred in the diagnosis and treatment of congenital heart disease have created widespread interest. The past 2 or 3 years have seen the development of professional teams and facilities for care of children with congenital heart disease in medical centers and hospitals in many States. This development of State centers has resulted in fewer children leaving their own State for care in regional centers.

Increasing interest with resulting development of programs for children with cystic fibrosis has been taking place, especially in the northeastern States. The caseload for children with this condition has been increasing. Many training institutes have included the subject of cystic fibrosis.

CHILD WELFARE SERVICES

The year 1959 stands out as a momentous one for the child welfare services program. The potentially far-reaching and challenging ramifications of the 1958 amendments to the child welfare provisions of Title V, part 3, of the Social Security Act for strengthening services for all children in this country is increasingly evident even in the relatively short period of time since their Presidential approval on August 28, 1958. With child welfare funds now available to urban as well as to rural areas, States have an opportunity to participate in improving community living for children and families in a dimension not heretofore possible.

In addition, the amendments:

1. Broadened the provision with respect to return of runaway children to their own communities to permit use of funds for children up to 18 years of age and to maintain the child pending his return for a period not exceeding 15 days.
2. Increased the authorization of Federal child welfare services funds from $12 million to $17 million.
3. Authorized reallotment of these funds. In accordance with this provision, reallotment was made to 15 States (February 1, 1959) of funds released by 4 States. That States have made

effective use of these additional funds is evidenced by the fact that the amount of Federal funds on hand in the Federal Treasury on June 30, 1959, was only $166,701.34. This represents 1.4 percent remaining in the Treasury in 1959 as contrasted with 4.6 percent in 1958.

4. Added a new requirement for matching Federal child welfare services funds with State funds, beginning July 1, 1959.
5. Extended the program to Guam, as of the same date. The Bureau's regional child welfare representative was in Guam before the end of the 1959 fiscal year to confer on the development of the basic plan and 1960 annual budget.

Another 1958 amendment to the Social Security Act (Title IX) established an Advisory Council on Child Welfare Services to report to the Secretary and the Congress by January 1, 1960. At its first meeting, May 4 and 5, the Council concerned itself chiefly with determining the scope of future deliberations and procedures for carrying out the congressional directive. Plans were made for a maximum of three future meetings before the end of 1959. A working paper prepared by the Bureau was requested by the Council for consideration at its next meeting. The Bureau has requested from States and national voluntary agencies information on developments and needs in child welfare programs as well as suggestions for future changes in Federal legislation.

As the fiscal year ended, plans were underway for an evaluation of the effect of the 1958 amendments. They have opened a new era in the grant program for child welfare services. Their effect in strengthening State and local child welfare programs along with recommendations anticipated from the Advisory Council on Child Welfare Services, will lay a foundation for the future of public child welfare services throughout the Nation.

A meeting with State Welfare Administrators and Child Welfare Directors, in October 1958, afforded opportunity for a discussion of draft materials on new procedures to carry out the above provisions. A report of the Conference is included in *The Changing Scene in Child Welfare*—Child Welfare Reports No. 9. Subsequently, these revised procedures were issued in official form, and prior to the fiscal year's end were incorporated along with procedures for implementing the requirement for "matching" in the *Handbook for Child Welfare Services*. Revised regulations were also in draft.

Uniformly, reports from the regional offices and from the States themselves have indicated a positive reaction to the new legislative base. A great deal of thought and care has gone into considering the most effective utilization of combined State and Federal funds to strengthen child welfare programs; State agencies have received new impetus for program expansion and development.

Demonstrable progress was made in 1959 in advancing knowledge of children's needs through joint planning between levels of government and between citizens and voluntary and public agencies in determining optimum ways of providing needed services.

Particular stress was laid on strengthening family life and services to children in their own homes. A joint committee of the Children's Bureau and Bureau of Public Assistance prepared a statement on relationships between the two programs in providing services to children in the families who also receive public assistance. A plan for allocating costs of such services between these two grant-in-aid programs was also developed. Consultation to State and local welfare agencies and citizen groups by the Bureau's Specialist on Services to Children in Their Own Homes has emphasized coordination in planning and providing services.

Results of the special survey conducted for the Bureau by the Bureau of the Census (May 1958) on arrangements for care of children of working mothers revealed that some 400,000 children under age 12 must care for themselves while their mothers work. Another 24,000 children under age 3 and 67,000 between ages 3 and 5 were reported receiving some type of group care. The effects of group care upon very young children, or of substandard or "no care" arrangements for any of these youngsters, is a matter of grave concern to the Bureau. In quick followup, a questionnaire on day care programs and facilities was developed jointly with the Women's Bureau in the Department of Labor and sent to some 284 national welfare, health, service, and women's organizations. Preliminary analysis of the returns testified to the widespread interest in this area of service. Bureau planning with the Women's Bureau for a Day Care Conference was underway at the year's end.

Another highlight of the year was the staging in Chicago in February 1959 of the most widely representative conference on homemaker service ever held in this country. The careful preliminary planning involved study groups in New York, Chicago, San Francisco, Cleveland, Raleigh, Denver, and Trenton; 26 national voluntary agencies; and 8 units of Health, Education, and Welfare. Participants received 12 descriptive statements of agency programs; reports of the preconference study groups; a nationwide study of services; and a popularly written pamphlet, CB Folder No. 46—*Homemaker Service.* Recommendations of significance to State programs were—

1. For a multidiscipline study and evaluation of the existing variations in homemaker service programs.
2. That the Department of Health, Education, and Welfare "encourage and assist States in developing homemaker service by continuing and expanding the consultation service it presently provides."

Significant advances have been made nationally this year in the preparation of legislative guides and model laws pertaining to child life. It is expected that these will have a substantial and positive effect upon future State legislative action. Four legislative workshops have been conducted by the Bureau's Specialist on Child Welfare Legislation on draft materials on parental rights and principles of adoption legislation. Participants included the Office of the General Counsel and Bureau personnel in the central office and seven regional offices. Publication of the Standard Family Court Act in 1959 provided another major development in child welfare services. Proposed as a model for State legislation, it provides for unified jurisdiction within family courts for issues arising from family conflicts such as divorce, adoption, support, paternity, delinquency, neglect, and allied problems.

Reorganization of the Bureau's Division of Social Services afforded opportunity for staff to work this past year not only with national organizations in the field of child welfare, but in many related fields as well. Consultations were given to a number of local voluntary and public agencies and institutions. Through the media of planning councils staff members have worked with citizens and lay groups; through appointment on national or regional or local professional committees they have helped to improve practices and standards for care. A conference of Lutheran, Methodist, and Episcopal national officers with five Southeastern State welfare department licensing consultants is one result of the new emphasis.

The scope of the Bureau's joint activities in 1959 with a variety of agencies and governmental units reflects the broad ramifications of its child welfare program. Cooperative efforts have continued with the American Association on Mental Deficiency, training schools, schools of social work, and the Council on Social Work Education in the field of social services for mentally retarded children.

The Division has worked jointly with the Child Welfare League of America, Family Service Association of America, National Travelers Aid Society, National Urban League, United Community Funds and Councils of America, the Salvation Army, the American Social Health Assn., and Florence Crittenton Home Association on problems related to the unmarried mother. Although the proportion of teenage unmarried mothers to the total number of unmarried mothers has remained fairly constant, there was an increase of 5.2 percent between 1956 and 1957 in births to adolescent unmarried mothers. Community concern over this trend has taken many forms. The Bureau noted a substantial increase in the number of letters it received requesting information about the problem, as well as suggested resources or preventive measures. Study committees have been appointed in a number

of States and urban centers to survey the magnitude of the problem, assess services and resources and make recommendations for next steps. Division staff is working with Bureau of Public Assistance staff on a cooperative approach to identifying the factors involved in illegitimacy and the planning essential to provide effective services to unmarried mothers and their children.

An East Coast Migratory Farm Labor Conference had participation from the fields of health, welfare, labor and industry, education, employment security, industrial relations, law enforcement, agriculture and markets, social security, vocational rehabilitation and church welfare services. The Mid-American Conference on Migratory Labor involved participants from 19 States. Joint sponsors were the Council of State Governments and the President's Committee on Migratory Labor. Division of Social Services staff participated in preliminary planning and acted as workshop leaders in some of the sessions on the needs of children of migrant workers.

Among the staff training developments during the year, the Bureau and the Child Welfare League of America completed a statement on the knowledge and skills essential for practice in the field of child welfare for use in the curriculum study directed by the Council on Social Work Education. A record $1,199,381.80 was budgeted by States as of June 30, 1959, for educational leave under their child welfare services program, holding promise for some future easing of trained staff shortages. Also, the Bureau took a first step in exploring the problem of how States can make effective differential use of available staff. A selected group of representatives from public child welfare and voluntary agencies was invited to Washington by the Bureau for a 2-day session on such differential use of staff, particularly case aides, for those aspects of the child welfare job which can be isolated as not requiring professional knowledge and skills. This, it is hoped, will be the beginning of broader-scale controlled experimentation. Division staff participated with the Bureau of Public Assistance in an inter-Bureau Committee in clarifying basic principles relating to staff development.

JUVENILE DELINQUENCY SERVICE

Interest in the problem of juvenile delinquency continued high throughout the country. More than 20 bills relating to delinquency were introduced in the past session of Congress. Several volumes of testimony were taken by two congressional subcommittees which heard witnesses testify on these bills. At the end of fiscal 1959, the subcommittees had reported out bills which were awaiting action of the full committees.

This widespread interest generated requests for the services of the Bureau's juvenile delinquency specialists to a point far beyond

their present capacity. The 10 staff specialists on delinquency responded to more than 800 requests for services. Three hundred and twenty-two of these requests from 32 States, the District of Columbia, Virgin Islands, and Puerto Rico were served by field consultations. Consultations were provided to 147 persons in the Washington office and to 366 through correspondence. In addition, approximately 60 foreign visitors from 24 countries received program information and technical assistance through office interviews.

Among official planning and coordinating agencies, there is a growing conviction that more must be learned about how to prevent juvenile delinquency, that new preventive techniques and programs should be tried and tested, and research intensified to measure the effectiveness of those already in use.

In the fall of 1958 with Children's Bureau staff attending, administrative personnel representing the youth commissions of 14 States came together to discuss their common concern—how to increase the prevention of juvenile delinquency. This was the first meeting for this purpose of personnel in State governments with leadership responsibilities to combat juvenile delinquency. A decision was made to meet again early in fall 1959 and to act on a proposal for a permanent organization.

In response to the expressed interest of municipal youth commissions, the Children's Bureau convened a meeting of their representatives in the fall of 1958, with nine directors from seven States. These commissions are seeking to develop a teamwork approach among concerned public and private agencies to reduce delinquency. They are especially interested in developing ways and means of converting citizen concern into positive action. The Children's Bureau staff also helped in planning a conference on "The Role of Pediatric Services in the Prevention of Juvenile Delinquency," sponsored by the American Academy of Pediatrics. The current interest of pediatricians in delinquency prevention is significant since they are as close to children and families as any other professional group.

Interest in training continued to gain. Staff members participated in numerous workshops and institutes. Considerable material was secured and is being adapted for training purposes.

In 1959, a number of police administrators were emphasizing the total departmental role in relation to children and youth rather than the responsibility of a small corps of juvenile specialists. Greater stress and responsibility were being placed on the patrol force for investigating and disposing of children's cases. A trend continued for police departments to withdraw from recreation and other activities normally the responsibility of other agencies.

The development of the Standard Family Court Act and Standard Juvenile Court Act (a cooperative venture of the National Probation

and Parole Association, the National Council of Juvenile Court Judges and the Children's Bureau) has brought about a more critical and realistic look at the principles and procedures involved in juvenile and family court operation. The substantial agreement among the three agencies on the principles involved should prove to be a milestone in the development of juvenile and family courts.

State agencies showed increased awareness of the necessity of providing juvenile court and probation and detention consultations. A number of States have added such consultants to their staffs. For the first time, a special workshop devoted to the subject of State consultant services to juvenile courts was held at the National Institute on Crime and Delinquency.

Considerable interest continued in forestry camps as a means of providing a constructive and unique institutional experience for delinquent boys. The interest is being manifested in the actual construction and development of camps as well as in discussions. There are wide variations in these programs. Experimentation is essential and that course is being pursued in some States.

Many States continue to face problems of overcrowding in institutions. This has led many to build additional cottages on their grounds to accommodate more children. In some States new institutions have been started and, as indicated above, a considerable number of camps have been initiated. Also, to meet this problem, some schools have had to reduce the length of stay.

Three major publications were completed: *Administration and Staff Training in Institutions for Juvenile Delinquents* (CB Pub. 377), was developed in cooperation with the National Association of Training Schools and Juvenile Agencies, National Conference of Superintendents of Training Schools and Reformatories, National Conference of Superintendents of Girls' Training Schools and the Graduate School of Social Work of Rutgers University; the *Standard Family Court Act* and the *Standard Juvenile Court Act* were the result of a joint project of the National Probation and Parole Association, the National Council of Juvenile Court Judges, and the Children's Bureau (printed by the National Probation and Parole Association).

Cooperative work was also carried on with the Council of Social Work Education, the American Public Welfare Association, and the Child Welfare League of America.

INTERNATIONAL COOPERATION

At the Executive Board meeting of UNICEF in the spring of 1958, the Chief of the Children's Bureau, as Chairman of the U.S. Delegation, made a proposal for a study of how UNICEF aid might be expanded into the field of social services for children, beginning with institutions and day care centers. During the subsequent year such a

study was carried out by the Bureau of Social Affairs. Enthusiastically received by the Executive Board in the spring of 1959, the study forms the background for a new program to be undertaken gradually. With the aid of a special consultant from the United Kingdom, the Bureau of Social Affairs and UNICEF will work with countries in developing new programs for children requiring care outside their own homes.

Staff members of the Bureau reviewed material and worked on the development of position papers for the Session of the United Nations Social Commission in New York in April and for the Session of the Economic and Social Council of the United Nations in Geneva in June. Material in the field of maternal and child health was provided for the use of the U.S. Delegate at meetings of the South Pacific Commission, and for the use of the U.S. Delegates to the World Health Organization Assembly.

The Bureau's heavy foreign correspondence continued, with a shift in geographic emphasis. The past year has brought a sharply increased number of requests for information and materials from African countries south of the Sahara. This reflects the increasing interest and activity of the United Nations and its specialized agencies and of the U.S. International Cooperation Administration in that part of the world.

Under a cooperative program with the International Cooperation Administration of the State Department, the Bureau's international staff recruits Americans for maternal and child health and child welfare positions abroad, provides technical materials and information as requested, and plans and arranges training programs for persons from other countries. In 1959 the trend in requests for recruiting was toward the social services, in the general field of child welfare, and in medical social services in national health programs. In training activities the trend toward training in the specialties of pediatrics and obstetrics for doctors and nurses continued, with a smaller number in the general area of maternal and child health.

Nine maternal and child health and child welfare specialists recruited and backstopped by the Bureau worked as consultants and teachers in eight countries. Two nurses, one obstetric and one pediatric, were in Guatemala, one pediatric nurse in Brazil, one nurse-midwife in Bolivia, and one pediatric nurse in India. A maternal and child health physician was in Paraguay and another in Iraq. In the first 6 months of 1959 a medical social worker arrived in Peru and a child welfare worker went to El Salvador.

During the year, programs of study and observation in this country were planned and arranged for 84 long-term trainees, an increase of 10 percent over 1958. The total of 84 included 39 physicians; 17

nurses; 1 administrator of a program for handicapped children; 3 medical social workers; 1 health educator and 23 specialists in various aspects of child and youth welfare. They came from 35 countries under auspices of the International Cooperation Administration, the United Nations, the World Health Organization, the International Exchange Service of the State Department, the Department of Defense, and a few from such organizations as the Carnegie Foundation and the American Association of University Women.

As in several years previous, more and more overseas physicians came here for training in the clinical specialties of pediatrics and obstetrics and many will return to teaching positions in medical schools in their respective homelands. Seven physicians on the faculty of medicine in Indonesia came for further training in pediatrics and obstetrics, part of an overall plan to upgrade medical education in that country. Thailand has continued its pattern of requesting 2 or more years for training physicians who will teach the clinical specialties, and the International Cooperation Administration has supported this pattern.

Twenty-three persons came to study child and youth welfare. Of these, 4 studied group work with children and youth; 3, juvenile delinquency; 1, child guidance; and 15, the general area of child welfare. Three persons studied in the field of medical social work.

In addition to the long-term trainees and observers, interviews and short observation visits were arranged for 152 short-term visitors from 55 countries. Among the 152 were top-ranking Government officials; members of Parliament; judges; teachers in universities, high schools, and grade schools; health educators; nutritionists; labor leaders; directors of insurance programs; doctors; nurses; social workers, etc., all of whom had major interest in some general field, but a minor interest in children.

INFORMATION FOR PARENTS AND THOSE WORKING WITH CHILDREN

In 1959, 37 new and revised publications were issued, and 9 more were undergoing, or ready for, printing, as compared to 32 issued and 13 ready to go at the end of fiscal year 1958. The number of printed pages produced in 1959, however, totaled 2,180, as compared to 1,864 in 1958—the highest total of published pages since 1927.

Besides important additions to its list of technical publications, the Bureau issued three new publications for parents which proved instantly popular—*Your Gifted Child*, *The Mentally Retarded Child at Home*, and *Accidents and Children.*

A publication highlight was the issuance of the 40,000,000th copy of *Infant Care* and its presentation to "typical" American parents by President Eisenhower at the White House.

A promotional effort for *Children* resulted in the addition of 4,000 new paid subscribers to that interdisciplinary journal, giving it the

highest paid circulation of any Department of Health, Education, and Welfare periodical.

Federal Credit Unions

Several noteworthy events during and immediately after the close of the fiscal year helped to strengthen the Federal credit union program and provided additional opportunities for service to the members.

Midway through the fiscal year, total assets of federally chartered credit unions passed the $2 billion level for the first time and active membership exceeded 5 million.

June 26 marked the 25th anniversary of the Federal Credit Union Act, passed by Congress in 1934. Early in July the Bureau paid the final installment of a long-term debt (nearly 5 years ahead of schedule), thereby becoming completely self-sustaining and self-financing.

Continued growth provided further opportunities for rendering service to additional thousands of American families. This service takes the form of timely loans at reasonable rates of interest for provident and productive purposes; financial counseling by many credit union officials to the members; and further encouragement to save for the proverbial "rainy day."

Credit unions enjoy certain inherent advantages which enable them to fulfill their mission of lending financial assistance and rounding out the financial education of the members. The cohesiveness of shareholder groups and the convenient location of credit union offices at places of employment present opportunities for service that might otherwise be lacking. Since credit unions are organized for the purpose of mutual assistance to the members, they can and should develop an esprit de corps that helps to sustain confidence in times of stress. Credit unions resist inflationary forces. The members' savings (shares) in credit unions have always exceeded members' borrowings from credit unions.

When the Federal Credit Union Act was passed a quarter of century ago, there were about 2,350 credit unions in the United States that had been chartered under State laws since the passage of the first State credit union law in Massachusetts in 1909. Today there are more than 9,300 active Federal credit unions alone, or about one-half the total number of active credit unions in the United States. Assets of the federally chartered groups totaled approximately $2,150 million on June 30, 1959, and active membership approached the 5.5 million mark.

During fiscal year 1959, total assets increased 15 percent, membership rose 7 percent, and loans outstanding to members moved up from $1,320 million on June 30, 1958, to $1,460 million a year later, an increase of 11 percent. According to Federal Reserve Board estimates,

Federal credit unions held 3.7 percent of the consumer installment credit outstanding at the end of June 1958; a year later, their share of the total had moved up to almost 4 percent as installment credit held by Federal credit unions increased 14 percent in contrast to a rise of 8.5 percent for installment credit as a whole.

The Bureau of Federal Credit Unions is the supervisory body charged with the responsibility of administering the Federal Credit Union Act. The Bureau receives no appropriation from the Congress, and is now completely self-supporting from fees paid by the credit unions chartered under the Federal act. To aid the Bureau in converting from a partially tax-supported to a completely self-sustaining basis, the Congress authorized a $250,000 loan in 1953. Repayment of the loan, together with interest totaling $30,070, was completed in July 1959, nearly 5 years ahead of the July 1, 1964, due date specified in the act which authorized the loan.

As the credit union program moves forward, looming ever larger in the Nation's economy, the Bureau's responsibilities increase with each passing year. The credit unions are faced with new and bigger problems as they continue to grow, and the Bureau's task of supervising and examining an increasing number of larger groups becomes more complex. By way of illustration, the past few years have witnessed a trend toward machine bookkeeping and other electronic devices in the larger credit unions as their volume of business expands. The examination program of the Bureau, which represents a major phase of its operations, must cope with this development, and at the same time must provide simpler yet equally effective examination procedures for the small credit union.

Staff development is receiving increasing attention as the training needs of the examiners and other Bureau staff are geared to the growth and ever-changing requirements of a dynamic program. Just as the credit union must constantly be alert for ways to improve and expand the services to members, so must the Bureau move forward in its efforts to improve and expand its services to the credit unions. A well-informed, knowledgeable supervisory staff obviously contributes to this end. A broadened and continuing training program was emphasized during the past fiscal year when the Bureau created and filled a new position of Employee Development Officer.

The 25th Anniversary week was highlighted by a week of conferences in Washington of the Bureau's regional representatives and associate regional representatives, and publication in the June 1959 issue of the *Social Security Bulletin* of a commemorative article entitled "Federal Credit Unions: Twenty-five Years of Self-Help Security."

As part of the 25th Anniversary celebration and with the cooperation of the Voice of America, the story of credit unions in the United

States was broadcast throughout the world in English and to Europe and to the Far East in 14 other languages—Russian, Ukrainian, Mandarin Chinese, Cantonese Chinese, Hungarian, Indonesian, Greek, Serbo-Croat, Italian, Persian, Bulgarian, Polish, Czech, and Armenian.

At the conclusion of the first quarter century of the Federal credit union program, there is every indication that it is entering a new era of maturity. The ideals of the early credit union leaders are firmly embedded in the program as it moves forward with increasing vigor and with a new appreciation of the social significance of credit unions as part of the American way of life. Today's credit union leaders are giving increasing attention to the field of family financial counseling as an area of emphasis toward expansion of services of a social nature. Perhaps even broader in its application is the increased thought given to providing credit union services to low income groups. Financial gains must not obscure the basic purposes so cogently expressed in the motto of credit unions everywhere: "Not for Profit, Not for Charity—But for Service."

Table 1.—*Social Security Administration: Funds available and obligations incurred, fiscal years 1959 and 1958* [1]

[In thousands; data as of June 30, 1959]

Item	Funds available [2]		Obligations incurred	
	1959	1958	1959	1958
Total	$2,181,882	$1,960,587	$2,180,039	$1,937,598
Grants to States:				
Public assistance	1,957,960	[3] 1,767,173	1,957,098	1,745,173
Old-age assistance			1,132,194	1,052,708
Aid to the blind			47,619	44,192
Aid to dependent children			626,546	525,318
Aid to the permanently and totally disabled			150,739	122,955
Maternal and child health and welfare services	45,000	41,500	44,728	40,722
Maternal and child health services	16,500	16,500	16,494	16,336
Services for crippled children	16,500	15,000	16,401	14,847
Child welfare services	12,000	10,000	11,833	9,539
Administrative expenses: [4]	178,922	151,910	178,213	151,703
Office of the Commissioner [5]	596	541	610	504
Bureau of Old-Age and Survivors Insurance [6]	170,614	144,692	170,087	144,449
Bureau of Public Assistance	2,164	1,982	2,142	1,974
Children's Bureau [7]	2,172	2,048	2,165	2,045
White House Conference on Children and Youth	150		150	
Bureau of Federal Credit Unions	3,226	2,647	3,059	2,731

[1] Funds available and obligations reported by administrative agencies.

[2] Funds made available by regular and supplemental appropriations, authorizations, transfers, allotments, recoveries, and fee collections for services rendered.

[3] Excludes $3.4 million transferred to other DHEW appropriations accounts pursuant to P.L. 85–472 for meeting portion of increase pay in 1958.

[4] Funds made available and obligations incurred for salaries, printing and binding, communications, traveling expenses, and all other objects of expenditure.

[5] Appropriations by Congress from general revenues accounted for approximately 56 percent of the administrative expenses of the Office of the Commissioner in 1958 and 1959; balance from old-age and survivors insurance trust fund.

[6] Administrative costs of the old-age, survivors, and disability insurance program which involved benefit payments of $8,043,000,000 in 1958 and $9,388,000,000, in 1959. Does not include construction costs of new buildings as follows: *Funds available:* 1959, $8,979,461; 1958, $30,140,163. *Obligations incurred:* 1959, $1,345,587; 1958, $22,370,702.

[7] 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 1957–59*

[In millions; independently rounded]

Item	1959 (preliminary)	1958	1957
Contributions collected under—			
Federal Insurance Contributions Act [1] [2]	$8,459	$8,193	$6,877
Federal Unemployment Tax Act [3]	324	336	330
State unemployment insurance laws [4] [5]	1,675	1,500	1,537
Old-age and survivors insurance trust fund:			
Receipts, total	8,109	7,824	7,100
Net appropriations and deposits	7,565	7,267	6,540
Interest and profits on investments [6]	543	557	561
Expenditures, total	9,379	8,041	6,665
Monthly benefits and lump-sum payments [7]	[8] 9,174	7,875	6,515
Administration	206	166	150
Assets, end of year	21,542	22,813	23,029
Disability insurance trust fund:			
Receipts, total	928	942	338
Net appropriations and deposits	895	926	337
Interest	33	16	1
Expenditures, total	360	180	1
Monthly benefits	339	168	
Administration	21	12	1
Assets, end of year	1,666	1,099	337
State accounts in unemployment trust fund:			
Receipts, total	2,126	1,794	1,790
Deposits [5]	1,946	1,575	1,578
Interest	179	220	212
Withdrawals for benefit payments	2,797	2,926	1,514
Assets, end of year	6,688	7,360	8,492

[1] Contributions on earnings up to and including $4,200 a year in 1957 and 1958, and $4,800 a year beginning Jan. 1, 1959. Contribution rate paid by employers and employees: 2 percent each; 2¼ percent each beginning Jan. 1, 1957; 2½ percent each beginning Jan. 1, 1959. Contribution rate paid by self-employed: 3 percent; 3⅜ percent beginning Jan. 1, 1957; 3¾ percent beginning Jan. 1, 1959. Includes deposits by States under voluntary agreements for coverage of State and local employees. Includes deductions to adjust for reimbursements to general funds of the Treasury of the estimated amount of employee taxes subject to refund on wages in excess of wage base.

[2] Includes old-age and survivors insurance and, beginning Jan. 1, 1957, disability insurance contributions.

[3] Prior to 1957 tax could be paid in quarterly installments by employers of 8 or more; beginning Jan. 31, 1957, tax payable annually on preceding year's wages by employers of 4 or more. Rate is 3 percent on first $3,000 a year of wages paid to each employee by subject employer. Because of credit offset of up to 90 percent of amount assessed that is permitted for contributions paid under State unemployment insurance laws (or for full contribution if reduced by State experience rating provisions), effective rate is 0.3 percent of such wages.

[4] Contributions plus penalties and interest collected from employers and contributions from employees, reported by State agencies.

[5] Contributions and deposits by States usually differ slightly, because of time lag in making deposits. Deposits in the State accounts also include loans from the Federal unemployment account of the unemployment trust fund and the distribution of Federal tax collections among the States under the Employment Security Administrative Financing Act of 1954.

[6] For 1957 and 1958 includes interest transferred from the railroad retirement account under the financial interchange provisions of the Railroad Retirement Act, as amended in 1951 and 1956.

[7] Represents checks issued.

[8] Includes payment of $124 million to railroad retirement account under financial interchange (see footnote 6).

Source: Compiled from *Final Statement of Receipts and Expenditures of the United States Government*, other Treasury reports, and State agency reports.

Table 3.—*Old-age, survivors, and disability insurance: Estimated number of families and beneficiaries receiving benefits and average monthly benefit in current-payment status, by family group, end of June 1959 and 1958*

[In thousands, except for average benefit; data corrected to December 1959]

Family classification of beneficiaries	June 30, 1959			June 30, 1958		
	Number of families	Number of beneficiaries	Average monthly amount per family	Number of families	Number of beneficiaries	Average monthly amount per family
Total	9,728.5	13,181.4		8,797.1	11,905.3	
Retired worker families	7,295.6	9,636.6		6,638.5	8,785.1	
Worker only	5,153.6	5,153.6	$68.30	4,662.0	4,662.0	$62.00
Male	2,700.6	2,700.6	77.30	2,500.6	2,500.6	69.80
Female	2,453.0	2,453.0	58.30	2,161.4	2,161.4	53.00
Worker and aged wife	1,978.1	3,956.2	120.60	1,835.2	3,670.4	110.20
Worker and young wife [1]	.6	1.2	113.70	.8	1.6	105.10
Worker and aged dependent husband	14.7	29.4	104.70	13.7	27.4	93.20
Worker and 1 or more children	33.5	78.4	119.70	29.1	69.4	106.70
Worker, wife aged 65 or over, and 1 or more children	14.7	47.9	152.70	8.0	26.2	139.00
Worker, young wife, and 1 or more children	100.3	369.6	148.20	89.6	327.8	128.30
Worker, husband, and 1 or more children	.1	.3	135.00	.1	.3	129.00
Survivor families	2,157.7	3,183.6		1,958.2	2,919.8	
Aged widow	1,311.5	1,311.5	56.20	1,165.4	1,165.4	51.60
Aged dependent widower	1.7	1.7	53.20	1.5	1.5	48.30
Widowed mother only [1]	1.1	1.1	57.20	1.2	1.2	50.30
Widowed mother and 1 child	154.2	308.4	129.00	145.1	290.2	116.20
Widowed mother and 2 children	107.9	323.7	166.50	101.8	305.4	149.50
Widowed mother and 3 or more children	102.7	494.0	177.50	96.5	459.6	148.10
Divorced wife and 1 or more children	.3	.8	161.60	.3	.8	137.40
Aged widow and 1 or more children	8.6	17.8	113.00	5.8	11.9	105.50
Widower and 1 or more children	(2)	(2)	94.30	(2)	(2)	94.00
1 child only	276.5	276.5	56.40	258.0	258.0	51.20
2 children	104.9	209.8	97.00	99.4	198.8	88.10
3 children	35.1	105.3	125.00	34.2	102.6	113.80
4 or more children	22.2	98.8	150.00	21.3	95.0	123.60
1 aged dependent parent	28.5	28.5	58.60	26.0	26.0	52.70
2 aged dependent parents	1.7	3.4	110.40	1.7	3.4	98.40
1 or 2 aged dependent parents and 1 or more other survivors	.8	2.3	190.00	0	0	0
Disabled worker families [3]	275.2	361.2		200.4	200.4	74.40
Worker only	235.6	235.6	87.70	200.4	200.4	74.40
Male	179.0	179.0	91.40	158.8	158.8	75.50
Female	56.6	56.6	75.80	41.6	41.6	70.10
Worker and aged wife	12.7	25.4	130.00			
Worker and aged dependent husband	.1	.2	104.00			
Worker and 1 or more children	6.4	18.6	158.00			
Worker, wife aged 65 or over, and 1 or more children	.2	.6	200.00			
Worker, young wife, and 1 or more children	20.2	80.8	188.00			

[1] Benefits to children were being withheld.
[2] Less than 50.
[3] Benefits to disabled workers aged 50–64 began July 1957, and benefits to their dependents began September 1958.

Table 4.—*Old-age, survivors, and disability insurance: Number and amount of monthly benefits in current-payment status at end of June 1959 and amount of benefit payments in fiscal year 1959, by State* [1]

[In thousands; data corrected to Dec. 9, 1959]

Beneficiary's State of residence	Monthly benefits in current-payment status, June 30, 1959						Benefit payments in fiscal year 1959			
	Total		OASI [2]		DI [2]		Total	OASI [2]		DI [2]
	Number	Monthly amount	Number	Monthly amount	Number	Monthly amount		Monthly benefits	Lump-sum death payments	
Total	13,181.4	$805,545	12,820.2	$778,404	361.2	$27,141	$9,388,378	$8,899,522	$149,625	$339,231
Alabama	202.9	9,979	194.3	9,429	8.6	550	116,815	108,095	1,902	6,818
Alaska	5.7	322	5.5	314	.1	8	3,746	3,564	83	99
Arizona	69.5	4,201	66.6	3,970	2.9	231	48,834	45,176	766	2,892
Arkansas	138.7	6,700	134.1	6,409	4.6	291	78,017	73,505	907	3,605
California	1,023.6	65,192	999.6	63,171	24.0	2,021	759,137	722,101	11,608	25,428
Colorado	109.0	6,536	106.9	6,374	2.1	163	76,033	72,849	1,149	2,035
Connecticut	203.8	14,138	198.7	13,709	5.2	429	164,730	156,754	2,593	5,383
Delaware	29.1	1,845	28.4	1,784	.7	60	21,606	20,413	435	758
District of Columbia	44.4	2,659	43.2	2,564	1.2	95	31,416	29,552	656	1,208
Florida	408.6	25,663	396.4	24,703	12.2	960	298,078	282,448	3,607	12,023
Georgia	212.1	10,577	203.1	9,990	9.0	587	123,917	114,479	2,101	7,337
Hawaii	27.1	1,522	26.3	1,460	.8	62	17,729	16,690	262	777
Idaho	48.3	2,843	47.5	2,783	.8	60	32,835	31,607	477	751
Illinois	761.1	50,112	743.1	48,630	18.0	1,482	583,804	554,725	10,429	18,650
Indiana	378.7	23,634	369.3	22,902	9.4	732	274,794	261,330	4,347	9,117
Iowa	236.9	14,185	232.9	13,892	4.0	294	164,237	158,178	2,404	3,655
Kansas	171.5	9,936	168.2	9,694	3.3	242	115,484	110,841	1,621	3,022
Kentucky	240.5	12,405	230.6	11,840	9.9	566	144,914	135,844	2,154	6,916
Louisiana	156.1	8,144	149.7	7,723	6.3	421	95,256	88,182	1,833	5,241
Maine	94.0	5,446	91.5	5,273	2.5	173	63,476	60,408	913	2,155
Maryland	173.2	10,540	168.5	10,172	4.7	367	123,581	116,414	2,556	4,611
Massachusetts	467.0	30,716	454.7	29,777	12.3	939	358,743	341,455	5,541	11,747
Michigan	561.9	37,688	548.4	36,558	13.5	1,130	438,331	417,270	6,864	14,197
Minnesota	260.3	15,782	256.2	15,468	4.2	314	183,208	176,735	2,554	3,919
Mississippi	134.9	5,994	130.8	5,735	4.1	259	70,339	66,109	1,009	3,221
Missouri	358.7	21,387	350.0	20,730	8.8	657	249,308	237,297	3,772	8,239
Montana	52.4	3,244	51.3	3,160	1.1	85	37,545	35,936	558	1,051

Nebraska	116.4	6,787	114.5	6,650	1.9	137	78,943	76,139	1,090	1,714
Nevada	13.6	873	13.3	843	.4	30	10,237	9,617	246	374
New Hampshire	57.8	3,562	56.6	3,465	1.3	97	41,541	39,680	647	1,214
New Jersey	475.4	32,372	463.8	31,399	11.6	973	378,068	359,348	6,481	12,239
New Mexico	38.8	1,979	37.7	1,906	1.1	74	23,066	21,741	417	908
New York	1,365.8	90,651	1,330.4	87,794	35.4	2,858	1,057,522	1,003,821	17,787	35,914
North Carolina	272.2	13,481	261.0	12,758	11.2	723	158,326	146,680	2,633	9,013
North Dakota	42.8	2,488	42.4	2,460	.4	28	28,627	27,849	431	347
Ohio	721.9	46,870	703.2	45,363	18.8	1,507	546,463	518,797	8,807	18,859
Oklahoma	158.0	8,716	153.8	8,405	4.2	311	101,544	96,074	1,596	3,874
Oregon	156.3	9,848	153.2	9,605	3.1	243	114,322	109,739	1,547	3,036
Pennsylvania	957.0	62,030	926.5	59,682	30.5	2,348	722,989	681,712	11,990	29,287
Puerto Rico	81.2	2,610	80.5	2,585	.6	25	30,554	29,842	380	332
Rhode Island	80.2	5,204	77.8	5,018	2.4	185	60,815	57,498	989	2,328
South Carolina	129.1	6,253	123.7	5,902	5.5	351	73,650	67,868	1,396	4,386
South Dakota	52.0	2,982	51.3	2,937	.7	45	34,676	33,628	487	561
Tennessee	231.8	11,474	223.5	10,946	8.3	528	134,444	125,711	2,198	6,535
Texas	507.5	27,350	492.8	26,306	14.7	1,043	319,850	301,147	5,673	13,030
Utah	49.7	3,028	48.9	2,962	.9	66	35,122	33,791	512	819
Vermont	35.7	2,087	34.7	2,015	1.0	72	24,338	23,083	361	894
Virgin Islands	.9	37	.9	36	(3)	(4)	423	410	7	6
Virginia	237.9	12,610	228.3	11,982	9.6	629	148,091	137,555	2,748	7,788
Washington	225.6	14,424	220.4	13,998	5.2	426	167,374	159,750	2,285	5,339
West Virginia	166.8	9,298	156.7	8,678	10.1	620	108,289	99,315	1,462	7,512
Wisconsin	332.4	20,782	325.5	20,247	6.8	535	241,320	230,944	3,690	6,686
Wyoming	19.8	1,196	19.4	1,167	.4	29	13,869	13,256	245	368
Foreign	85.0	5,163	84.1	5,083	.9	80	58,002	56,570	419	1,013

[1] Distribution by State estimated.

[2] Benefits under the old-age and survivors insurance (OASI) parts of the old-age, survivors, and disability insurance program are payable from the OASI trust fund to old-age insurance (retired-worker) beneficiaries and their dependents and to survivors of deceased workers. Benefits under the disability insurance (DI) part of the program are payable from the DI trust fund to disability insurance (disabled worker) beneficiaries and, beginning September 1958, to their dependents.

[3] Less than 50.

[4] Less than $500.

Table 5.—*Old-age, survivors, and disability insurance: Selected data on employers, taxable earnings, and contributions, by State, for specified periods*

[In thousands, except for average taxable earnings]

State	Employers reporting taxable wages July–September 1958 [1]	Calendar year 1956			
		Workers with taxable earnings [2]	Amount of taxable earnings [3]		Amount of contributions [4]
			Total	Average per worker	
Total	4,090	68,600	$170,689,000	$2,490	$6,650,500
Alabama	59	1,080	2,136,000	1,970	83,500
Alaska	4	70	155,000	2,210	6,100
Arizona	25	390	854,000	2,170	33,300
Arkansas	35	560	865,000	1,550	33,000
California	350	5,740	15,392,000	2,680	600,200
Colorado	40	640	1,370,000	2,150	52,900
Connecticut	65	1,180	3,105,000	2,620	122,100
Delaware	12	230	539,000	2,370	21,100
District of Columbia	31	440	883,000	1,980	34,900
Florida	119	1,660	2,937,000	1,760	113,800
Georgia	83	1,360	2,505,000	1,840	97,800
Hawaii	12	190	422,000	2,180	16,500
Idaho	14	290	558,000	1,900	21,200
Illinois	229	4,550	11,857,000	2,610	462,400
Indiana	92	1,890	4,953,000	2,620	192,800
Iowa	68	1,180	2,515,000	2,130	93,900
Kansas	50	870	1,863,000	2,140	71,100
Kentucky	58	980	1,932,000	1,980	74,400
Louisiana	62	1,000	1,994,000	1,990	77,700
Maine	25	430	807,000	1,870	31,500
Maryland	71	1,160	2,587,000	2,230	101,300
Massachusetts	123	2,300	5,592,000	2,430	219,600
Michigan	155	3,430	9,584,000	2,790	376,100
Minnesota	73	1,270	2,831,000	2,230	107,800
Mississippi	36	650	1,056,000	1,610	40,900
Missouri	104	1,980	4,222,000	2,140	163,800
Montana	16	250	614,000	2,480	23,200
Nebraska	34	600	1,248,000	2,090	47,000
Nevada	7	140	268,000	1,930	10,400
New Hampshire	17	290	574,000	2,010	22,500
New Jersey	151	2,620	6,679,000	2,550	261,400
New Mexico	18	260	484,000	1,870	18,600
New York	498	7,660	20,735,000	2,710	812,400
North Carolina	91	1,540	3,019,000	1,960	117,600
North Dakota	13	210	436,000	2,030	15,500
Ohio	202	4,410	11,419,000	2,590	447,800
Oklahoma	52	910	1,751,000	1,920	67,500
Oregon	42	800	1,862,000	2,330	72,200
Pennsylvania	251	4,760	12,155,000	2,550	476,300
Puerto Rico	17	460	398,000	860	15,500
Rhode Island	21	540	1,127,000	2,100	44,300
South Carolina	45	880	1,544,000	1,760	60,500
South Dakota	16	260	483,000	1,860	17,700
Tennessee	72	1,230	2,268,000	1,840	88,100
Texas	222	3,540	7,346,000	2,070	285,800
Utah	16	340	711,000	2,070	27,700
Vermont	11	150	329,000	2,150	12,800
Virginia	84	1,320	2,758,000	2,080	107,600
Virgin Islands	1	10	13,000	930	500
Washington	64	1,030	2,609,000	2,540	101,200
West Virginia	36	660	1,490,000	2,270	58,600
Wisconsin	89	1,600	3,988,000	2,490	154,100
Wyoming	9	140	282,000	2,030	10,800
Foreign [5]	----------	90	253,000	2,980	10,100
Maritime [6]	----------	140	332,000	2,460	13,300

[1] 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. Excludes agricultural employers.

[2] State data represent workers employed in the State at some time during the year. Workers employed in more than 1 State are counted once in each of the States in which employed.

[3] State data represent taxable earnings distributed according to the State in which earned. Averages, based on unrounded estimates of workers and earnings, are rounded to nearest $10.

[4] Contributions based on a worker's annual taxable earnings, not more than $4,200 in 1956. Contribution rate was 2 percent each for employees and employers and 3 percent for self-employed persons.

[5] Employment and earnings data relate to citizens of the United States employed by American employers.

[6] Relates to employment of officers and crews of American vessels.

Table 6.—*Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings for specified periods, 1957–59*

[In thousands, except for average monthly benefit and average taxable earnings; corrected to Oct. 28, 1959]

Item	1959	1958	1957
	Fiscal year		
Benefits in current-payment status (end of period):			
Number (OASI and DI)[1]	13,181.4	11,905.3	10,342.1
Number (OASI)	12,820.2	11,704.9	10,342.1
Number (DI)	361.2	200.4	
Old-age (retired-worker)	7,295.6	6,638.5	5,832.3
Disability (disabled-worker)	275.2	200.4	
Wife's or husband's (OASI and DI)	2,141.8	1,947.4	1,719.0
Wife's or husband's (OASI)	2,108.5	1,947.4	1,719.0
Wife's or husband's (DI)	33.2		
Child's (OASI and DI)[2]	1,747.7	1,571.9	1,427.4
Child's (OASI)[2]	1,694.8	1,571.9	1,427.4
Child's (DI)[2]	52.8		
Widow's or widower's	1,322.0	1,172.8	1,020.5
Mother's	366.5	344.9	314.9
Parent's	32.7	29.4	28.1
Total monthly amount (OASI and DI)	$805,545	$659,684	$554,637
Total monthly amount (OASI)	$778,404	$644,773	$554,637
Total monthly amount (DI)	$27,141	$14,911	
Old-age (retired-worker)	$526,701	$436,244	$373,230
Disability (disabled-worker)	$24,324	$14,911	
Wife's or husband's (OASI and DI)	$81,295	$67,821	$58,749
Wife's or husband's (OASI)	$80,096	$67,821	$58,749
Wife's or husband's (DI)	$1,199		
Child's (OASI and DI)[2]	$76,209	$61,471	$54,283
Child's (OASI)[2]	$74,591	$61,471	$54,283
Child's (DI)[2]	$1,618		
Widow's or widower's	$74,359	$60,457	$51,707
Mother's	$20,760	$17,241	$15,224
Parent's	$1,896	$1,538	$1,445
Average monthly amount:			
Old-age (retired-worker)	$72.19	$65.71	$63.99
Disability (disabled-worker)	$88.40	$74.42	
Wife's or husband's (OASI and DI)	$37.96	$34.83	$34.18
Wife's or husband's (OASI)	$37.99	$34.83	$34.18
Wife's or husband's (DI)	$36.09		
Child's (OASI and DI)[2]	$43.61	$39.11	$38.03
Child's (OASI)[2]	$44.01	$39.11	$38.03
Child's (DI)[2]	$30.62		
Widow's or widower's	$56.25	$51.55	$50.67
Mother's	$56.65	$49.99	$48.35
Parent's	$58.02	$52.34	$51.38
Benefit payments during period:			
Monthly benefits (OASI and DI)	$9,238,753	$7,900,638	$6,391,690
Monthly benefits (OASI)	$8,899,522	$7,732,218	$6,391,690
Monthly benefits (DI)	$339,231	$168,420	
Old-age (retired-worker)	$6,041,417	$5,245,777	$4,340,271
Disability (disabled-worker)	$311,105	$168,420	
Supplementary (OASI and DI)	$1,007,142	$860,488	$679,289
Supplementary (OASI)	$979,016	$860,488	$679,289
Supplementary (DI)	$28,126		
Survivor	$1,879,089	$1,625,953	$1,372,130
Lump-sum death payments	$149,625	$142,714	$122,891
Insured workers (midpoint of period—Jan. 1):[3]	77,310	76,210	74,140
Fully insured	75,810	75,310	73,860
Currently but not fully insured	1,500	900	280
Estimated number of employers reporting taxable wages, 1st quarter of fiscal year	[4] 4,090	[4] 4,060	[4] 4,052
	Calendar year		
Estimated number of workers with taxable earnings	([5])	70,000	70,500
Estimated amount of taxable earnings	([5])	$181,000,000	$181,300,000
Average taxable earnings [6]	([5])	$2,590	$2,570

[1] Benefits under the old-age and survivors insurance (OASI) parts of the old-age, survivors, and disability insurance program are payable from the OASI trust fund to old-age insurance (retired-worker) beneficiaries and their dependents and to survivors of deceased workers. Benefits under the disability insurance (DI) part of the program are payable from the DI trust fund to disability insurance (disabled-worker) beneficiaries and their dependents.

[2] Includes benefits payable to disabled persons aged 18 or over—dependent children of disabled, deceased, or retired workers—whose disability began before age 18.

[3] Estimates of insured workers have not been adjusted to reflect changes in insurance status arising from: (1) provisions that coordinate the old-age, survivors, and disability 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 or more than 1 account number.

[4] Excludes agricultural employers.

[5] Not available.

[6] Rounded to nearest $10.

Table 7.—*Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1959, and total payments to recipients, by program and State, fiscal year 1959*

[Includes vendor payments for medical care and cases receiving only such payments; data corrected to Oct. 16, 1959]

State	Old-age assistance			Aid to dependent children						Aid to the blind			Aid to the permanently and totally disabled		
		Payments to recipients		Number of recipients, June			Payments to recipients				Payments to recipients			Payments to recipients	
	Number of recipients, June	Average payment, June	Total, fiscal year (in thousands)	Families	Total [1]	Children	Average payment per family, June	Average payment per recipient, June	Total, fiscal year (in thousands)	Number of recipients, June	Average payment, June	Total, fiscal year (in thousands)	Number of recipients, June	Average payment, June	Total, fiscal year (in thousands)
Fiscal year:															
1957	2,503,790	$58.66	$1,724,289	647,185	2,398,728	1,831,860	$96.52	$26.04	$700,269	108,441	$63.87	$80,610	283,910	$59.10	$188,844
1958	2,460,299	61.38	1,798,374	728,255	2,733,146	2,092,216	102.39	27.28	815,196	108,336	66.72	85,397	312,585	60.69	212,209
1959	2,419,959	64.76	1,858,004	777,680	2,928,957	2,247,002	106.93	28.39	956,380	109,446	69.04	89,066	339,233	63.37	244,664
Alabama	100,316	45.02	52,267	22,600	89,787	69,968	27.90	7.02	7,221	1,657	35.33	652	12,704	33.31	4,823
Alaska	1,468	60.57	1,086	1,171	4,087	3,055	100.69	28.85	1,348	94	71.22	77	--------	--------	--------
Arizona	13,882	57.12	9,391	6,598	26,054	19,885	113.45	28.73	8,029	817	68.05	645	--------	--------	--------
Arkansas	56,265	48.66	32,004	7,931	30,284	23,722	59.80	15.66	5,402	2,047	53.64	1,288	7,093	36.62	2,955
California	261,607	83.86	266,981	71,468	253,428	197,170	162.33	45.78	132,483	14,087	103.32	17,512	6,361	86.80	4,873
Colorado	51,748	98.01	59,647	7,079	27,207	21,236	124.09	32.29	10,157	312	76.52	288	5,610	65.80	4,129
Connecticut	14,857	110.17	20,354	7,287	23,996	17,833	156.52	47.53	13,398	303	112.31	395	2,138	134.95	3,376
Delaware	1,412	49.02	880	1,679	6,272	4,814	87.67	23.47	1,755	264	72.72	227	336	64.52	242
District of Columbia	3,221	64.32	2,414	3,835	16,782	13,198	145.40	33.23	6,081	228	68.10	191	2,642	74.63	2,189
Florida	70,096	53.83	44,792	27,692	101,806	78,949	59.60	16.21	18,921	2,547	58.93	1,778	8,135	60.19	5,078
Georgia	98,155	47.46	54,465	15,706	58,380	44,919	88.56	23.82	16,456	3,545	52.54	2,160	18,879	51.95	10,323
Hawaii	1,488	58.45	1,004	2,583	10,055	7,981	132.99	34.16	4,028	93	66.68	71	1,077	71.81	892
Idaho	7,599	64.06	5,896	1,937	7,128	5,246	148.31	40.30	3,339	173	68.88	143	999	69.58	786
Illinois	77,861	69.66	65,610	34,310	140,136	107,597	152.53	37.35	61,742	3,099	78.77	2,993	17,780	71.52	17,383
Indiana	29,442	59.67	21,061	11,506	41,835	31,507	101.83	28.01	13,661	1,911	74.04	1,593	--------	--------	--------
Iowa	35,874	72.58	30,724	8,780	32,203	24,205	132.29	36.07	12,781	1,457	87.51	1,491	--------	--------	--------
Kansas	29,545	77.32	27,618	5,841	21,904	17,121	132.58	35.35	8,863	606	85.02	612	4,203	81.79	4,086
Kentucky	57,203	43.27	28,909	20,807	74,846	56,259	72.39	20.12	17,966	3,167	44.03	1,657	8,001	44.11	3,983
Louisiana	124,614	66.13	97,692	24,277	98.831	76,559	89.32	21.94	25,639	2,613	76.31	2,316	15,356	53.77	9,541
Maine	11,882	65.04	8,723	5,656	19,845	14,593	95.78	27.30	6,119	463	69.13	361	1,838	70.89	1,339

Maryland	9,649	59.43	6,673	8,505	35,162	27,515	117.26	28.36	10,815	448	62.98	334	5,412	65.08	4,104
Massachusetts	81,934	96.62	96,257	14,439	48,198	36,079	147.12	44.07	25,846	2,122	117.35	2,869	10,025	116.06	13,455
Michigan	64,739	71.32	55,270	27,534	97,128	71,031	134.48	38.12	40,599	1,813	76.32	1,639	4,226	85.85	3,924
Minnesota	48,273	86.24	48,632	9,639	32,962	25,580	151.93	44.43	16,437	1,119	96.44	1,293	2,215	61.20	1,521
Mississippi	80,717	29.83	28,698	18,636	71,849	56,396	41.04	10.65	8,497	5,997	38.53	2,658	,8774	29.95	2,577
Missouri	119,367	55.87	80,836	25,983	98,038	74,122	90.16	23.90	25,833	5,193	65.00	3,835	15,458	57.94	10,521
Montana	7,276	63.61	5,692	1,854	6,820	5,318	122.11	33.20	2,785	351	74.64	320	1,430	70.76	1,232
Nebraska	15,675	67.98	12,732	2,819	10,481	7,966	102.82	27.65	3,528	926	82.95	935	1,570	70.32	1,254
Nevada	2,608	67.72	2,126	1,025	3,387	2,623	88.70	26.84	1,028	176	98.51	193			
New Hampshire	5,087	71.17	4,321	1,121	4,222	3,198	155.40	41.26	1,886	239	72.27	214	397	87.64	379
New Jersey	19,074	87.92	19,204	10,954	36,563	27,763	154.04	46.15	17,610	922	84.44	896	6,014	96.06	6,174
New Mexico	10,528	63.10	7,612	7,231	27,685	21,272	115.47	30.16	9,404	391	63.52	284	2,225	69.04	1,670
New York	85,719	103.47	104,211	66,145	257,042	193,432	164.06	42.22	129,625	4,007	111.55	5,144	37,994	102.36	45,465
North Carolina	50,270	40.82	23,488	26,565	105,039	80,965	76.72	19.40	22,659	5,111	51.93	2,954	17,884	47.47	9,252
North Dakota	7,429	83.55	7,422	1,745	6,473	5,025	142.30	38.36	2,914	95	68.85	84	1,061	92.94	1,156
Ohio	90,057	69.47	71,444	24,261	94,687	72,571	107.90	27.65	29,209	3,694	64.10	2,844	10,606	67.38	7,977
Oklahoma	91,779	76.38	80,629	17,416	60,594	45,954	110.28	31.70	21,508	1,883	93.96	2,027	8,920	85.78	8,531
Oregon	17,751	74.59	17,119	5,991	21,469	16,217	128.84	35.95	9,457	272	81.86	288	5,013	82.25	5,005
Pennsylvania	49,929	67.49	36,053	44,631	175,259	133,248	119.71	30.48	61,024	17,577	62.22	13,300	16,131	59.13	11,054
Puerto Rico	40,463	8.20	3,976	51,935	190,920	152,953	15.04	4.09	8,418	1,862	8.25	176	21,485	8.85	2,194
Rhode Island	6,963	74.48	6,267	4,552	16,439	12,324	127.78	35.38	6,792	127	72.96	112	2,726	80.35	2,432
South Carolina	33,918	37.87	15,685	9,674	38,460	30,244	55.82	14.04	6,293	1,733	42.19	882	7,876	34.79	3,227
South Dakota	9,218	58.63	6,196	3,123	10,691	8,061	99.79	29.15	3,594	164	57.92	115	1,097	61.17	702
Tennessee	56,744	43.74	28,937	21,975	81,082	61,108	70.44	19.09	17,756	2,887	47.86	1,610	7,859	48.30	3,730
Texas	223,409	52.06	136,197	24,658	102,344	78,044	70.90	17.08	21,272	6,382	57.04	4,224	5,126	52.75	2,662
Utah	8,208	66.43	6,661	3,470	12,289	9,153	131.44	37.11	5,280	205	70.34	178	2,199	72.29	1,745
Vermont	5,872	57.16	3,816	1,274	4,516	3,382	108.38	30.57	1,421	135	60.33	93	817	59.89	512
Virgin Islands	584	23.40	160	217	780	648	43.17	12.01	105	20	(2)	6	101	25.64	30
Virginia	15,195	41.12	7,214	9,279	37,292	29,262	82.48	20.52	8,620	1,228	46.52	661	6,085	47.03	3,174
Washington	51,915	89.90	57,539	11,732	41,004	30,718	160.95	46.05	22,407	748	105.90	907	6,079	106.80	7,431
West Virginia	20,435	34.28	8,950	20,482	78,846	61,343	87.37	22.70	21,531	1,049	39.84	513	7,423	35.83	3,389
Wisconsin	37,170	78.22	33,413	9,304	33,601	25,564	159.18	44.08	15,673	1,022	89.61	964	1,317	120.39	1,726
Wyoming	3,469	72.21	3,055	768	2,769	2,106	132.49	36.75	1,163	65	69.51	58	536	74.51	461

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

[2] 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 1959*

[Includes vendor payments for medical care; amounts in thousands; data corrected to Oct. 31, 1959]

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 from Federal funds	Amount	Percent from Federal funds	Amount	Percent from Federal funds	Amount	Percent from Federal funds
Fiscal year:													
1957	$1,586,361	$993,284	$443,210	$41,361	$108,506	$1,832,190	55.1	$776,479	58.0	$87,293	47.6	$211,171	51.3
1958	1,745,173	1,052,708	525,318	44,192	122,955	1,911,217	55.4	902,651	58.7	92,549	47.8	238,037	52.3
1959	1,957,098	1,132,194	626,546	47,619	150,739	1,973,089	58.3	1,056,618	59.1	96,806	49.6	273,290	55.3
Alabama	51,256	40,091	6,641	536	3,988	54,758	73.7	8,143	79.0	690	76.7	5,259	76.4
Alaska	1,715	719	945	51	----------	1,189	61.8	1,436	68.6	86	57.8	----------	----------
Arizona	13,333	6,776	6,114	443	----------	9,618	70.6	8,325	74.6	670	67.4	----------	----------
Arkansas	31,638	23,533	4,802	939	2,364	33,021	72.3	5,734	80.1	1,330	71.1	3,221	74.8
California	218,613	138,148	68,886	7,490	4,089	287,112	48.3	151,566	45.3	19,422	39.4	5,996	49.7
Colorado	34,589	24,547	7,034	175	2,833	61,658	40.7	11,303	62.7	325	54.1	4,703	62.5
Connecticut	15,180	7,504	6,398	155	1,122	21,664	37.0	14,485	43.0	420	39.5	3,653	32.4
Delaware	2,311	622	1,381	144	164	965	66.0	1,940	70.5	257	56.8	291	60.1
District of Columbia	7,262	1,736	4,133	116	1,277	2,651	60.7	6,716	59.9	207	58.6	2,344	55.3
Florida	54,122	32,271	16,837	1,263	3,751	47,130	68.4	21,114	79.0	1,888	67.2	5,703	66.4
Georgia	64,597	41,632	13,407	1,635	7,923	57,243	72.5	17,537	75.2	2,284	71.2	11,124	71.1
Hawaii	4,025	698	2,723	46	557	1,097	63.2	4,539	58.5	82	59.3	1,007	55.3
Idaho	6,687	4,078	1,969	99	541	6,181	67.5	3,617	53.5	156	63.3	870	62.6
Illinois	87,647	40,552	35,822	1,717	9,556	71,462	57.7	66,863	53.2	3,377	51.1	19,131	50.1
Indiana	24,710	13,338	10,347	1,025	----------	23,016	61.4	15,099	67.6	1,837	56.4	----------	----------
Iowa	28,566	19,406	8,341	819	----------	32,646	60.8	13,835	59.5	1,615	51.1	----------	----------
Kansas	24,681	16,264	5,701	347	2,369	29,384	56.0	9,619	58.9	658	52.4	4,410	53.4
Kentucky	41,583	22,263	14,985	1,275	3,060	30,200	73.8	19,218	77.3	1,735	73.5	4,337	69.8
Louisiana	99,013	67,936	21,853	1,432	7,793	102,424	67.0	28,647	74.7	2,461	58.7	10,860	68.4
Maine	12,275	6,216	4,847	248	964	9,163	69.5	6,493	73.3	377	67.7	1,465	65.0

Maryland	15,102	4,344	7,847	218	2,693	7,098	63.2	12,177	66.9	353	62.3	4,387	61.6
Massachusetts	61,898	42,531	13,050	1,051	5,266	102,747	42.9	28,625	45.2	3,036	35.9	14,811	37.1
Michigan	59,425	32,827	23,688	903	2,006	59,160	57.2	43,160	54.5	1,711	53.9	4,162	48.5
Minnesota	35,671	25,116	8,815	621	1,119	51,186	51.2	17,839	49.2	1,387	45.3	1,720	65.1
Mississippi	35,785	23,834	7,576	2,099	2,276	30,499	78.2	9,568	78.6	2,806	74.4	3,023	75.6
Missouri	85,716	55,987	20,170	2,238	7,320	84,312	66.6	27,618	73.1	4,171	54.2	11,226	65.8
Montana	6,693	3,775	1,922	197	798	6,128	62.9	3,094	60.8	368	57.3	1,378	58.1
Nebraska	12,834	8,640	2,787	547	860	13,642	65.2	3,829	71.1	1,000	54.0	1,401	62.4
Nevada	2,324	1,367	859	97		2,309	58.9	1,239	66.3	253	44.0		
New Hampshire	4,094	2,654	1,094	135	211	4,666	59.3	2,082	53.2	234	57.4	447	49.3
New Jersey	21,704	9,879	8,499	498	2,827	21,266	48.3	18,833	45.4	1,048	50.1	7,386	44.4
New Mexico	14,515	5,760	7,318	213	1,225	8,147	70.3	10,172	72.2	307	70.5	1,861	66.4
New York	141,529	45,511	72,588	2,344	21,087	116,122	41.5	150,627	49.0	6,057	40.4	52,703	42.4
North Carolina	46,767	18,467	18,686	2,344	7,270	24,741	74.5	24,338	78.3	3,349	70.2	9,966	72.2
North Dakota	6,625	4,160	1,794	60	610	7,970	53.4	3,178	56.4	97	61.4	1,272	48.0
Ohio	72,424	43,159	22,110	1,949	5,207	76,459	59.5	31,785	68.4	3,197	61.5	8,851	59.9
Oklahoma	71,966	50,311	15,614	1,026	5,015	83,018	61.1	22,539	70.4	2,098	50.5	9,063	55.4
Oregon	17,729	9,429	5,465	150	2,685	18,773	51.8	10,648	51.4	311	49.3	5,633	48.4
Pennsylvania	78,836	24,308	43,202	3,709	7,617	39,171	61.6	67,598	64.1	13,968	25.3	12,773	57.8
Puerto Rico	8,477	2,168	4,842	107	1,360	4,556	50.0	9,576	48.7	213	50.0	2,703	50.0
Rhode Island	9,229	3,562	4,185	68	1,414	6,724	53.8	7,293	57.1	123	55.5	2,678	50.7
South Carolina	21,360	12,379	5,581	699	2,701	16,626	74.6	6,887	79.6	949	72.9	3,575	74.7
South Dakota	7,961	4,481	2,845	89	546	6,664	69.8	3,924	71.2	129	69.0	791	68.8
Tennessee	41,762	22,500	14,986	1,232	3,044	30,699	73.2	19,199	77.8	1,706	72.2	4,125	71.6
Texas	123,197	99,169	18,658	2,999	2,371	140,064	70.8	23,214	79.6	4,395	69.6	3,141	68.2
Utah	9,135	4,456	3,419	118	1,141	6,968	66.9	5,745	58.6	187	63.8	1,832	62.4
Vermont	4,330	2,792	1,073	68	397	4,043	70.1	1,563	70.4	99	69.7	560	69.1
Virgin Islands	195	102	69	5	19	200	49.8	151	49.9	8	49.6	37	49.9
Virginia	16,276	5,751	7,453	527	2,545	7,982	73.1	9,628	76.3	764	70.0	3,607	70.7
Washington	42,045	27,145	11,360	387	3,153	59,827	45.6	23,697	45.8	952	41.1	7,813	40.2
West Virginia	26,562	6,771	16,762	384	2,645	9,349	75.0	22,139	75.4	538	73.5	3,636	73.5
Wisconsin	28,267	18,682	8,348	546	691	36,116	53.9	17,128	48.3	1,051	52.2	1,859	37.9
Wyoming	2,863	1,847	713	34	269	3,274	57.0	1,294	54.3	62	56.3	495	55.4

[1] Based on cash advanced for the year; may differ slightly from fiscal-year expenditures from Federal funds reported by States.

Table 9.—*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 1959* [1]

[In thousands]

State	Maternal and child health services	Crippled children's services	Child welfare services
United States	$16,494.1	[2] $15,170.6	$11,833.3
Alabama	547.8	462.5	369.6
Alaska	163.6	208.7	57.4
Arizona	148.7	----------	130.0
Arkansas	292.6	249.2	249.9
California	795.8	759.9	415.2
Colorado	329.3	176.8	146.8
Connecticut	246.3	213.7	116.1
Delaware	104.3	95.7	63.4
District of Columbia	246.5	171.7	40.0
Florida	449.7	302.7	252.8
Georgia	453.3	449.6	371.7
Hawaii	172.4	134.4	68.4
Idaho	137.8	119.2	59.8
Illinois	448.6	454.2	360.2
Indiana	315.1	253.5	129.0
Iowa	235.4	313.0	242.6
Kansas	205.1	213.8	185.6
Kentucky	369.6	384.5	357.1
Louisiana	353.6	358.2	289.4
Maine	135.6	120.2	108.7
Maryland	389.8	303.4	174.6
Massachusetts	423.7	309.0	115.2
Michigan	553.8	504.9	416.9
Minnesota	378.4	433.5	281.3
Mississippi	380.3	363.2	336.1
Missouri	317.8	306.9	282.0
Montana	117.6	151.3	103.9
Nebraska	107.0	134.4	117.2
Nevada	156.0	84.1	50.8
New Hampshire	103.2	98.6	73.4
New Jersey	239.5	206.4	126.0
New Mexico	216.8	152.8	115.5
New York	759.2	549.9	376.7
North Carolina	558.2	635.3	557.9
North Dakota	112.4	103.7	116.2
Ohio	572.6	531.2	473.7
Oklahoma	231.0	273.8	209.7
Oregon	152.9	168.7	166.1
Pennsylvania	743.8	652.7	524.2
Rhode Island	148.1	102.7	57.8
South Carolina	386.0	348.3	333.4
South Dakota	76.9	85.8	117.9
Tennessee	501.4	452.1	380.3
Texas	654.3	839.1	586.1
Utah	137.6	110.4	94.1
Vermont	107.2	92.1	78.1
Virginia	549.3	391.2	360.7
Washington	265.5	172.9	191.7
West Virginia	214.8	288.5	254.5
Wisconsin	226.3	320.9	315.8
Wyoming	101.8	88.7	65.1
Puerto Rico	367.4	386.4	324.9
Virgin Islands	92.4	86.2	41.8

[1] On checks issued basis less refunds.

[2] Includes $269,600 derived from $1.5 million supplemental appropriation to be used only for children with congenital heart diseases to remain available until June 30, 1960.

Table 10.—*Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding, Dec. 31, 1935–58* [1]

Year	Number of operating Federal credit unions	Number of members	Assets	Shares	Loans outstanding
1935	772	119,420	$2,372,100	$2,228,400	$1,834,200
1936	1,751	309,700	9,158,100	8,510,900	7,343,800
1937	2,313	483,920	19,264,700	17,649,700	15,695,300
1938	2,760	632,050	29,629,000	26,876,100	23,830,100
1939	3,182	850,770	47,810,600	43,326,900	37,673,000
1940	3,756	1,127,940	72,530,200	65,805,800	55,818,300
1941	4,228	1,408,880	106,052,400	97,208,900	69,484,700
1942	4,145	1,356,940	119,591,400	109,822,200	43,052,500
1943	3,938	1,311,620	127,329,200	117,339,100	35,376,200
1944	3,815	1,306,000	144,365,400	133,677,400	34,438,400
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
1953	6,578	3,255,422	854,232,007	767,571,092	573,973,529
1954	7,227	3,598,790	1,033,179,042	931,407,456	681,970,336
1955	7,806	4,032,220	1,267,427,045	1,135,164,876	863,042,049
1956	8,350	4,502,210	1,529,201,927	1,366,258,073	1,049,188,549
1957	8,735	4,897,689	1,788,768,332	1,589,190,585	1,257,319,328
1958	9,030	5,209,912	2,034,865,575	1,812,017,273	1,379,723,727

[1] Data for 1935–44 on membership, assets, shares, and loans outstanding are partly estimated.

Table 11.—*Federal credit unions: Assets and liabilities, Dec. 31, 1958, and Dec. 31, 1957*

Assets and liabilities	Amount			Percentage distribution	
	Dec. 31, 1958	Dec. 31, 1957	Change during year	Dec. 31, 1958	Dec. 31, 1957
Number of operating Federal credit unions	9,030	8,735	295		
Total assets	$2,034,865,575	$1,788,768,332	$246,097,243	100.0	100.0
Loans to members	1,379,723,727	1,257,319,328	122,404,399	67.8	70.3
Cash	154,257,791	135,115,485	19,142,306	7.6	7.5
U.S. bonds	94,897,483	90,921,596	3,975,887	4.7	5.1
Savings and loan shares	347,411,329	251,614,676	95,796,653	17.1	14.0
Loans to other credit unions	35,073,948	38,827,893	−3,753,945	1.7	2.2
Land and buildings	6,084,555	4,587,837	1,496,718	.3	.3
Other assets	17,416,742	10,381,517	7,035,225	.8	.6
Total liabilities	2,034,865,575	1,788,768,332	246,097,243	100.0	100.0
Notes payable	37,481,165	41,281,715	−3,800,550	1.8	2.3
Accounts payable and other liabilities	7,173,674	5,273,781	1,899,893	.4	.3
Shares	1,812,017,273	1,589,190,585	222,826,688	89.1	88.9
Regular reserve	75,810,826	62,344,129	13,466,697	3.7	3.5
Special reserve for delinquent loans	4,579,416	3,674,115	905,301	.2	.2
Other reserves [1]	3,881,182	2,536,571	1,344,611	.2	.1
Undivided earnings	93,922,039	84,467,436	9,454,603	4.6	4.7

[1] Reserve for contingencies and special reserve for losses.

Public Health Service

Health of the Nation

Cooperative effort is the key to American health. Private practitioners, universities and medical schools, hospitals and research laboratories, voluntary organizations and foundations, civic and community groups, and official agencies of government—these and other groups contribute their combined skills and resources to the struggle for better health in the United States. During the past year this vast partnership continued to grow, both in size and in strength.

The result was progress on many fronts. Disease and disability are stubborn enemies and yield ground slowly. Moreover, the character and tempo of modern life often create new health problems, even as solutions are found for the old ones.

Action in behalf of health must rest on a solid base of public interest, understanding, and support. The record of the past year indicates heightened public interest and the pursuit of measures designed to illuminate and strengthen every segment of the health front.

The Federal Government, through its principal health agency—the Public Health Service—was an active partner in these enterprises. Appropriations for PHS programs increased. New programs were established, and a number were expanded. Renewed emphasis was given to the health problems related to the modern environment; health research continued to grow; and continued attention was given to the development and training of health manpower. The pages that follow describe in detail these developments and other significant actions of the past year.

HEALTH RECORD

The health of the American people remained at a high level during the past year. The general death rate for 1958 [1] was 9.5 per 1,000

[1] All vital statistics are given for the calendar year.

population, slightly under the 1957 rate of 9.6. The rate has been below 10 per 1,000 population since 1948, reached its lowest level of 9.2 in 1954, and has varied between 9.2 and 9.6 since then.

The infant mortality rate for 1958 was 26.9 deaths per 1,000 live births, virtually unchanged from the 1957 rate of 26.3. The maternal mortality rate for 1958 was 3.5 per 10,000 live births, compared with 3.9 in 1957.

The average length of life for the entire population, based on mortality rates for 1957, was 69.3 years. The average life expectancy was 67.1 years for white males, 73.5 for white females, 60.3 for nonwhite males, and 65.2 for nonwhite females.

Chronic diseases continued to cause the majority of deaths in the United States. Together, diseases of the heart and blood vessels and cancer accounted for 70 percent of all deaths in 1958. The death rate for the major cardiovascular-renal diseases in 1958 was 524.0 per 100,000 population, and the cancer death rate was 145.6 per 100,000 population.

The mortality trend for accidents, with the exception of motor-vehicle accidents, has been downward since 1949. The death rate for motor-vehicle accidents remained at a high level. It was 22.3 per 100,000 in 1958, compared with 22.7 in 1957. For all other accidents, however, the rate continued to drop—from 33.2 per 100,000 in 1957 to 31.4 in 1958.

Deaths from most communicable diseases continued to decrease. The tuberculosis death rate was 7.0 per 100,000 population in 1958, compared with 7.8 in 1957. The principal diseases of childhood—scarlet fever and streptococcal sore throat, diphtheria, whooping cough, and measles—which caused about 4 deaths for every 100,000 youngsters in 1949, were responsible for only about 1 death per 100,000 in 1958.

BIRTHS, MARRIAGES, AND DIVORCES

An estimated 4,250,000 live births occurred in 1958, only 1.3 percent below the record high of 4,308,000 reached in 1957. The decline in the birth rate per 1,000 population, however, was somewhat larger, 3.2 percent. The birth rate dropped from 25.3 in 1957 to 24.5 in 1958. Since there were 9.5 deaths per 1,000 people in 1958, or a total of 1,647,000 deaths, the rate of natural increase came to 15.0 persons per 1,000—slightly lower than last year's rate of 15.7.

The estimate of marriages performed in 1958 was 1,445,000, or 4.7 percent less than the figure for 1957. The marriage rate was 8.3 per 1,000 population, compared with 8.9 in 1957.

The estimated number of divorces granted in 1958 was 380,000, less than 1 percent below the figure for 1957.

INFLUENZA AND POLIOMYELITIS

Although a recurrence of Asian influenza, which struck the United States in epidemic proportions in the fall and winter of 1957, was expected in this country in 1958, there were no reports of confirmed cases until February of 1959. Sporadic outbreaks of both Type A2 (Asian) and Type B influenza began to occur during that month, and continued to be reported for several months.

In 1958, the incidence of paralytic poliomyelitis was almost 50 percent higher than in 1957. This ended the steady downward trend in incidence since 1954. The total number of paralytic cases reported in 1958 was 3,697; in 1957, it was 2,499; in 1956, it was 7,911; and in 1955, the year the poliomyelitis vaccine first became available, it was 13,850. About 50 percent of the paralytic cases in 1958 occurred in children under 5 years of age, the group with the least amount of protection from the vaccine.

By the end of 1958, about 50 million people under 40 years of age had had three injections of poliomyelitis vaccine, and some had had a fourth injection. About 40 million people under 40, however, had had no vaccine at all. Therefore, the Public Health Service, in cooperation when the American Medical Association and the National Foundation, continued to promote vaccination programs.

Funds and Personnel

In 1959, there was a total of $894.2 million available to the Public Health Service (see table 1, page 136). Of this amount, about $755.8 million was in appropriations and authorizations. The balance was made up of reimbursements for services rendered to other agencies and in unobligated balances from previous years.

Grants to the States for health programs and for the construction of health facilities and sewage treatment plants amounted to 30 percent of the total funds obligated. Research, training, and construction grants to medical, dental, and research institutions represented 40 percent of the total. Thus, about 70 percent of the total amount available to the Public Health Service was allocated to agencies and institutions outside the Federal Government. The remainder supported the operation of Public Health Service hospitals, foreign and interstate quarantine, Indian health services, and other direct activities of the Service.

There were 25,050 full-time employees in the Public Health Service at the close of fiscal year 1959 (see table 2, page 138). This number included 1,564 members of the regular Commissioned Corps of the Service, 1,925 members of the Reserve Corps on active duty, 97 members of the Commissioned Reserve on temporary training duty, and

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21,464 full-time Civil Service employees. The Service continued its extensive recruitment program for professional personnel. A wide variety of measures were employed to create interest in permanent careers in the Public Health Service.

National Library of Medicine

On June 12, 1959, ground was broken for a new library building at the National Institutes of Health. This event brought to fruition a forty-year effort to secure adequate quarters for the National Library of Medicine.

A number of new sources for the procurement of publications from marginal areas of the world were located during the year, and the acquisition of Russian materials continued to improve. At year's end the steadily expanding collection of the Library numbered 1,028,296 pieces.

INDEXING SERVICES

Work neared completion on mechanization of copy preparation for publication of the Library's monthly index. Arrangements were concluded for participation with the American Medical Association in the joint provision of a comprehensive indexing service for the world's current medical literature. Under the new arrangement, beginning in January 1960, the *Current List of Medical Literature* will become the *Index Medicus* with annual cumulations published by the American Medical Association from copy provided by the Library.

PUBLICATIONS PROGRAM

The Library added a new title to its list of publications when it undertook the preparation of *Film Reference Guide to Medicine and Allied Sciences.* An annual publication prepared under contract with the Interdepartmental Committee on Medical Training Aids, the 1959 edition lists 1,800 films of interest to the medical programs of one or more of the member agencies of the Committee, which includes Army, Navy, Air Force, Veterans' Administration, and the Public Health Service. Other major publications issued or in press at the close of the year included: *National Library of Medicine Catalog; Bibliography of Medical Reviews; Current List of Medical Literature; Guide to Russian Medical Literature; Bibliography of Space Medicine; Staphyloccocal Infection; Psychopharmaca; Fungus Infections; Bibliography of Military Psychiatry.*

PROGRAM STATISTICS

During fiscal year 1959, the Library acquired 11,690 books, 68,532 serial pieces, and added 1,296 new serial titles. It purchased 828 old and rare items for its History of Medicine collections, cataloged 20,757

titles, and added 958 pictures and portraits to its art collection. There were 111,822 volumes circulated to users of the Library; 9,390 reference questions were answered; 326 bibliographies were prepared on special subjects; 21,272 main entries were published in the *National Library of Medicine Catalog;* 117,378 items were indexed and published in the *Current List of Medical Literature* from 1,633 journal titles. Almost 1.5 million pages of medical literature were microfilmed in response to 69,595 requests. An additional 1.5 million pages were microfilmed for preservation purposes.

Public Health Methods

The Division of Public Health Methods provides staff assistance to the Surgeon General, conducts studies on needs and resources which affect public health programs, and participates in cooperative projects with public and private agencies. The Division edits and publishes *Public Health Reports* and the Public Health Monograph series as a means of disseminating information about public health research, practice, and administration.

NATIONAL HEALTH SURVEY

The U.S. National Health Survey is designed to obtain health statistics needed by users in many fields, such as medicine, hospital administration, and health insurance. It is a continuing program of surveys which includes household-interview surveys, special surveys, and methodological studies. During the past year, two methodological reports were published and six reports based on household-interview data for the year 1957–58. Major attention was given to the development and pretesting of a standardized health examination to produce data which can be obtained in no other way—specifically, precise diagnostic information on certain chronic conditions and distributions of physical and physiological variables. Health examination pilot studies were conducted in Allen County, Indiana and Howard County, Iowa in preparation for the launching, in fiscal year 1960, of a series of examinations on a sample of the national population.

U.S. National Health Survey figures show that during the year July 1957–June 1958, illness and injury caused 3,370 million days of restricted activity among the civilian, noninstitutional population of the country. This amounted to about 20 days per person per year. Of the restricted activity days, about 1,310 million—or an average of 7.8 days per person—were bed disability days.

About 438 million acute illnesses involving either restricted activity or medical attention occurred during the same report year. Such illnesses average 2.6 for every person in the population.

During the same period, 46.9 million persons sustained injuries involving medical attention or restricted activity. This was an average of 27.9 persons injured per 100 persons in the population. The disability resulting from the injuries totaled 424 million days of restricted activity including 114 million days spent in bed.

STUDIES OF HEALTH RESOURCES

The Division provided the executive secretary and staff for the National Conference on Homemaker Services. Nearly 300 persons attended this two-day conference which was sponsored by 8 governmental agencies and 26 national voluntary organizations. Prior to the conference, the Division issued three publications on homemaker services—a directory of existing agencies, a statistical study of services, and a collection of descriptions of typical programs. The executive secretary and staff have the major responsibility for preparing and publishing the final report with the advice of an editorial committee chosen from the sponsors.

Another activity was the preparation of a chapter, "Health in Middle and Later Years of Life," for the forthcoming book, "Handbook of Social Gerontology." This handbook was developed for the Inter-University Training Project in Social Gerontology sponsored by the University of Michigan. Factual data from many sources on health status, resources, utilization, cost, and need for services for the aged were compiled and analyzed for use at various conferences and for program planning at both Federal and State levels.

For the past several years, the Division has maintained a "Clearinghouse" on sources of morbidity data. The six published listings are at present being coordinated and consolidated into a cumulative volume on morbidity statistics projects.

Division staff members are coordinating and editing a volume, "Guide to the Administration of Community Health Services," sponsored by the City Managers Association and the American Public Health Association. This volume, which consists of chapters written by some 28 different authorities in the field, will cover all phases of community health services.

The Surgeon General appointed a group of 22 national leaders in medicine, education, and public affairs as consultants to appraise existing data, plans, and proposals concerned with medical education and to recommend action which must be taken to achieve reasonable and acceptable goals in the next decade. The Division is providing the staff services for this consultant group whose report will be completed in the fall of 1959. Background information assembled for the Consultants has been prepared for publication in the Division's *Health Manpower Source Book* series. This publication shows current numbers, distribution, and educational facilities for physicians,

dentists, and nurses. Estimates of the future supply of personnel in these health professions are included.

Studies were also conducted by the Division staff in the broad area of health economics—medical care expenditures, health insurance, and economic costs of illness, for example.

The National Institutes of Health

In addition to conducting research in its own laboratories at Bethesda, Md., the National Institutes of Health supports research projects, training, and construction in institutions throughout the Nation. Its grants are awarded after careful review by non-Federal study sections composed of technical experts, and by advisory councils composed of leaders in science and public affairs.

In fiscal year 1959, Congress appropriated $294.4 million for the Institutes' research and training programs and $30 million for grants to finance the construction of research facilities. An unprecedented total of 9,166 research-project grants and 5,271 training grants and fellowships were awarded, totaling $20 million (Table 3).

During the year, increased efforts were made to appraise the present programs and their impact on the Nation's total research and training effort. The first in a series of staff studies surveyed the research needs and NIH support in 20 selected medical schools. The study revealed trends toward increasingly productive research through such measures as stronger training programs, balanced research support, and attention to the broader needs of institutions.

To meet growing responsibilities in training and international health programs, three major positions were established on the NIH Director's staff—Deputy Director, Associate Director for Training, and Special Assistant on International Affairs.

Substantial progress was made in such large-scale collaborative operations as the search for better chemical agents to treat cancer and the evaluation of drugs for the treatment of mental illness. After several years of preparation, a collaborative study of 40,000 mothers and their babies was activated in the search for causes of cerebral palsy, mental retardation, and related disorders.

Cooperation among NIH scientists in various fields led to new basic knowledge of neurostructural bases of behavior. Clinical studies in progress are designed to evaluate promising new compounds for the dietary control of dental caries and for the treatment of high blood pressure.

Among the more important achievements of the year were discoveries pertaining to the cancer-virus relationship. The induction of leukemia in mice by means of a virus extracted from a mouse sar-

coma lent further stimulus to investigations of the possible viral origin of some human cancers.

In an effort to accelerate progress in the increasingly important field of physical biology, 126 leading scientists attended a four-week study program sponsored by NIH at Boulder, Colo.

The Center for Aging Research, now part of the Division of General Medical Sciences, established at Yeshiva University the second of a series of long-term programs to coordinate aging studies, and increased its support of research projects in gerontology.

The mounting volume of grant applications in certain fields resulted in the creation of seven additional grant review boards. Through grants, research was stimulated in environmental health, gastroenterology, cystic fibrosis, schizophrenia, and staphylococcus infection.

Clinical Center

During fiscal year 1959, action was taken to keep physicians apprised of the mission, methods, and diagnostic needs of the NIH clinical program. Maximum utilization of the Clinical Center's 516 research beds was continued, with an average daily census of approximately 400 patients.

As a result of the national expansion of basic medical research during the past decade, the volume of clinical research is increasing rapidly throughout the country. Each year more hospitals become involved in evaluating the new concepts, devices, and compounds derived from laboratory study. Thus, the Clinical Center is assuming greater importance as a major national resource to other hospitals for knowledge concerning the techniques, problems, and safeguards involved in the large-scale study of sick people.

To this end, intensified efforts were directed toward making available to other hospitals knowledge which the Clinical Center has developed during its six years of existence.

Management of the NIH Visitor Program was assigned to the Clinical Center on January 1, 1958. Approximately 9,000 professional and pre-professional visitors were registered during the year, and individually planned schedules were arranged for more than 5,000 of these. In addition to regular annual lectures and symposia, a number of closed-circuit TV programs for the interchange of scientific knowledge were conducted.

Division of Biologics Standards

The Division is responsible for administering the control of biological products in interstate and foreign commerce. This regulatory

function is carried out through issuance of establishment and product licenses, following a determination that prescribed standards of safety, purity, and potency have been met. At the end of the year, 176 establishment licenses and 1,220 product licenses were in effect, the latter covering 275 specific products.

Tests continue to be performed at the rate of approximately 3,400 a year, ranging from relatively simple sterility tests to potency determinations involving both animals and tissue culture. In addition, approximately 4,000 vials of physical reference standards are prepared and distributed annually to manufacturers and to laboratories engaged in biological standardization.

An integral part of the Division's control activities is its research program, essential for the continuous improvement of licensed products and the licensing of new ones as they develop. During the year, Division scientists reported: the determination of ultraviolet inactivation rates of viruses as a potential aid to their identification; the discovery of a blood serum that can be used to test for the rare blood group Cellano; evidence that the biological material which experimentally transforms fibroma virus into myxoma virus is nucleic acid; a method using chicks instead of monkeys for measuring potency of killed polio vaccine; and determination of the comparative virulence for monkeys of the oral polio vaccines under study in field trials.

Division of General Medical Sciences

The Division of General Medical Sciences was created on July 16, 1958, to strengthen support of biomedical research and research training. A new organizational framework was thus provided for the conduct and continued development of NIH extramural programs in the general preclinical and clinical sciences, public and environmental health, medical care, and aging. At the same time, the NIH Center for Aging Research was transferred from the National Heart Institute to the new Division.

As the fiscal year closed, the Division was supporting more than 1,000 research projects at medical schools and other private research institutions. These projects are seeking basic information about biology and medicine under the following program headings: Chemistry of Life Processes, Fundamental Genetics and Human Development, Research in Public Health and Medical Care, Fundamental Clinical Investigations, Environmental Factors in Health and Disease, and Additional Fundamental Biomedical Research.

Program benefits are illustrated in several areas. In the Chemistry of Life Processes, for example, scientists are probing deeper into the origins of life. Primitive proteins have been made with amino acids

in experiments following the steps that probably led to formation of the first living substances. This work opens the way for further study of the processes by which living matter is formed, and suggests the possibility of producing synthetic proteins for dietary supplements.

In another field, Human Development, investigators are studying the processes by which antigens, antibodies, and nutrients are passed from the mother through the placenta to the fetus. This work is important in understanding congenital abnormalities. In related work, a grantee has chemically isolated relaxin, a hormone that assists women during childbirth.

The Division administers research grants in the area of environmental health, which includes accident prevention, air and water pollution, food toxicology, and occupational health. This work has become increasingly important in man's complex and rapidly changing environment with its many implications in health and disease.

One of the first tasks is to measure the extent to which man is actually endangered. Studies in air pollution, for example, have revealed that certain air pollutants can limit the reproduction rate of mice. In food toxicology, scientists have found that combinations of certain commercial insecticides on food products can pose serious hazards, not only for consumers but also for workers in food processing.

Programs of research training and fellowships in the sciences basic to medicine and biology underwent a marked growth during the year. In accordance with the original plan set forth by Congress, the program of Senior Research Fellowships increased an additional $1 million to a total 1960 level of $3 million supporting advanced training for 165 scientists over a 5-year period.

The Division's research training program has expanded during the past year from 88 projects to 176, providing training for nearly 1,000 scientists. The number of different training programs has grown from one, in Epidemiology and Biometry, to a total of nine, including Biochemistry, Genetics, Pathology, Dermatology, Pharmacology, Physiology, the Anatomical Sciences, and Experimental Embryology and Development.

CENTER FOR AGING RESEARCH

The NIH Center for Aging Research coordinates PHS research and training activities in the field of aging. During the year, grants for research on aging in the Nation's research institutions increased from 274 to 404.

The aging programs include nearly all disciplines and areas of interest, from studies of body tissues to research in nursing. In studies of the total human organism, it has been found that many health problems of the aged have an early origin, and that preparation for old age should therefore begin in youth. Other studies have shown

that a factor resembling the juvenile hormone, known to control the growth of insects, can appear in the human being. Still other findings pertain to the relation between age and reproduction, particularly among lower forms of life.

Division of Research Grants

The continued growth of NIH programs necessitated a major reorganization within the Division of Research Grants. Responsibility for administering the research and training grants program in areas basic to the biological and medical sciences was transferred from DRG to the newly created Division of General Medical Sciences. The realignment permitted DRG to strengthen and broaden its central services in extramural affairs to all NIH research programs.

Specifically, the reorganization enabled DRG to increase the number of study sections to process the increasing volume of research grant applications without sacrificing the traditional high quality of application review. The procedure for fellowship application review was changed to provide an expanded and more detailed appraisal of fellowship applications.

In 1956 the Congress authorized a three-year program of grants to aid in the construction of health research facilities. The program has awarded $90 million in grants in its three years of operation. In August 1958 the Congress extended the program an additional three years.

The program to promote the international exchange of scientific information and techniques through postdoctoral fellowship awards to promising scientists proved eminently successful during the year and was extended to include 30 countries.

Central Services

The Division of Business Operations provides central business management and plant safety services for the National Institutes of Health. The speed and accuracy of payroll and financial reporting activities were increased by transfer to an electronic computer. A simplified grants-payment system was installed, permitting issuance of a single monthly check to each grantee institution, regardless of the number of individual grants in effect. Further studies were under way at the year's end to develop similar improvements in such areas as large-scale storage and retrieval of research-grant information.

The Division of Research Services supports the NIH research programs by providing a wide range of technical, scientific, and

other skills. In 1959, the Division helped plan, build and maintain new research facilities on the grounds of NIH. Construction was begun, for example, on a new laboratory building for the National Institute of Dental Research; a research greenhouse was completed; and progress was made in developing special facilities for the care of germ-free animals.

A study was undertaken of factors affecting microbial content in patient-care and operating areas. The number of laboratory animals was increased, and several new species were added. Computer technology was applied increasingly to medical research problems.

Institute of Allergy and Infectious Diseases

One of the major areas of emphasis in infectious disease research continues to be the common respiratory infections, still the most prevalent illnesses. During the past year, virologists of this Institute defined two new agents among the para-influenza viruses and found them related to a large proportion of childhood respiratory illnesses ranging from mild febrile symptoms to croup and pneumonia. Cooperative studies with the Department of Agriculture provided evidence for a relationship between the para-influenza viruses and diseases in cattle, particularly shipping fever.

With the development of new virological techniques, Institute investigators studied for the first time the natural history of a mouse tumor (polyoma) virus. The distinction between this and other viruses was rigorously defined, and its presence in enormous amounts was demonstrated in infected mice.

The recent disclosure by the Institute's Rocky Mountain Laboratory of an alarming increase in the number of dairy herds infected with the rickettsia of Q fever implies a growing reservoir of human disease. Future studies are contemplated in several Western States, especially with regard to associated human infection.

In the field of immunology, laboratory scientists studying immune mechanisms demonstrated the precise conditions necessary for the maintenance of skin grafts among inbred guinea pigs. Other scientists from the same laboratory worked out a new technique for studying anaphylactic reactions.

Institute investigators in the Northwest, almost coincident with a California report of a human death due to bat rabies, revealed an instance of rabies transmission from bats to mice by biting.

The renewed emphasis on tropical medicine led to an intensified investigation of the arthropod-borne viruses. In one such study, field scientists of this Institute collaborated with research workers in Panama to elucidate many of the factors involved in an outbreak of eastern equine encephalitis among horses.

GRANT-SUPPORTED RESEARCH

Studies by an Institute grantee at the University of Miami resulted in an announcement of what may be the first successful systemic treatment of the superficial fungus infections in man. Response to oral therapy with the antibiotic griseofulvin was uniformly favorable, and infections of many years' duration seemed to respond readily.

Grantees at the University of Illinois obtained promising results in long-term clinical studies of the broad spectrum antibiotics. Oral administration of tetracycline has sharply reduced the number and duration of attacks of bronchitis and bronchiectasis.

At the Alabama Polytechnic Institute, a grantee reported the first systemic insecticide capable of eliminating certain disease-carrying parasites in domestic animals. The compound, DOW–ET–57, when administered in the food of cattle, circulates in body fluids and destroys common cattle grubs.

Long-term studies by grantees at Maimonides Hospital, New York, have resulted in findings that discredit the long-held view that candidiasis, a sometimes fatal fungus infection, may be transmitted by airborne means. As a result, the investigators suggest that spread of the disease may be prevented when infants are segregated within the general nursery and handled with strict aseptic techniques.

Other grantees studying fatalities associated with Asian influenza report that the influenza pandemic of 1957–58 was the first in which staphylococci played the dominant role almost universally in the complicating pneumonias. The fatal cases of staphylococcal pneumonia observed in these studies were generally marked by severe and rapidly progressing illness, less accurate diagnosis, and relatively ineffective antibiotic treatment.

Institute of Arthritis and Metabolic Diseases

One of the most significant and striking accomplishments of the year was the development, by Institute scientists, of a new synthetic pain-killing drug that is 10 times more powerful than morphine and 50 times more powerful than codeine. The new analgesic, which has been named phenazocine, was synthesized from simple coal-tar derivatives and gives promise of freeing this country from its present dependence on morphine-producing areas of the world.

Experience with phenazocine in over four thousand patients, at NIH and in other institutions, has confirmed its high pain-killing activity. More importantly, the drug is less addicting than morphine, although longer-term studies will be needed to determine exactly its addiction liability. In addition to high potency, the new analgesic causes less respiratory depression than morphine, has low toxicity, and gives

excellent results against certain forms of severe pain which morphine does not relieve.

An important phase of arthritis research at the Institute continues to be the clinical and metabolic evaluation of new antirheumatic steroid drugs. In recent years, Institute scientists and grantees have tested an increasing number of synthetic steroids developed by the pharmaceutical industry. One is dexamethasone, an antirheumatic drug that is found to be several times as potent as its chemical relative, prednisone. The first long-term trials of dexamethasone at the Institute have shown that the drug can relieve the painful symptoms of rheumatoid arthritis in patients who received little or no benefit from other steroids. Since it is not completely free from side effects, however, it must be used with the same caution employed with the older drugs.

The Institute is collaborating with the American Rheumatism Association and the Arthritis and Rheumatism Foundation in organizing a chain of arthritis clinics throughout the country to evaluate new drugs like dexamethasone. The continuing results of this program, expected to operate over several years, will provide reliable information about the relative merits and limitations of both old and new antirheumatic agents.

An improved treatment for gout has derived from basic studies of the metabolism of zoxazolamine, a drug that has been in use for several years as a muscle relaxant. At Mount Sinai and Goldwater Memorial Hospitals, New York, Institute grantees studying the breakdown of the drug in the body noticed that it also promoted the rapid excretion of uric acid. The drug was then tested in gout patients (since a characteristic of their diseases is the overproduction of uric acid), and it proved to be a more potent uricosuric agent than any others available. Another such drug, sulfinpyrazone, has also been clinically studied at the Institute and appears to be equally potent.

Basic research in rheumatic disease has highlighted the possibility that rheumatoid arthritis may be the result of an immune reaction to an as yet unidentified substance. This possibility is strengthened by the fact that the rheumatoid factor, which is present in the blood of arthritic patients, is apparently a gamma globulin, a type of blood protein known to contain antibodies.

In diabetes research, one of the most promising developments has been the use of the small-dose cortisone test for predicting diabetes susceptibility in relatives of known diabetics. An initial screening of the test, developed by grantees at the University of Michigan Medical School, indicates that it will provide an extremely reliable index of "pre-diabetes." A 5-year follow-up is now planned.

Diabetes research continues to be influenced by the new oral anti-

diabetic drugs, which have replaced insulin injections in one-third of the diabetics in the United States. The first of the new drugs was tolbutamide (Orinase), which became available in June 1957 after extensive trial by Institute grantees and other physicians. Two others, chlorpropamide (Diabinese) and phenformin (DBI), have also come into use. How these drugs act to lower blood sugar is not fully understood, but most evidence indicates their principal action to be stimulation of the beta cells of the pancreas to produce more insulin.

The Institute has continued to expand activities in new research areas—gastroenterology and physical biology. In gastroenterology—the medical specialty dealing with such disorders as peptic ulcer and ulcerative colitis—grantees at Cornell Medical Center and New York Hospital have developed a radio "pill" that broadcasts information about pressure changes inside the intestinal tract. Grantees at Northwestern University Medical School have developed a technique for taking motion pictures of fluoroscopic examinations.

Further developments in the field of physical biology—the research area utilizing the principles and methods of the physicist in studies of biology—have been stimulated by more than 80 research grants and nine training grants awarded by the Institute. Notable progress has been made in such studies as the biological effects of radiation, energy transfer in photosynthesis, and coding and information theory.

Cancer Institute

Among the major research accomplishments reported by scientists and grantees of the National Cancer Institute were results of studies dealing with viruses as cancer-causing agents, cytologic tests as an aid in the detection of malignancy, and chemotherapy—the treatment of cancer with drugs.

Virology assumed an increasingly important role in cancer research. A cancer virus was discovered in mice, as was a technique for preventing other animal virus tumors by vaccination. If further effort along these lines reveals that some human tumors result from viruses, it may be possible to develop vaccines against them.

Exfoliative cytology, the examination of cells that collect in body fluids, is now a well-recognized method for detecting uterine cancer prior to the appearance of symptoms and at a time when adequate treatment nearly always results in cure. Efforts to detect other forms of cancer by similar means have been encouraging and are being pursued. The Institute, moreover, has initiated a program to accumulate basic information that may facilitate the evolution of one or more generalized tests for cancer. A number of contracts have been signed providing for biochemical analyses of blood from both normal and

cancerous persons. This program is stimulating renewed scientific interest in the whole area of cancer diagnosis.

The broad program of the Cancer Chemotherapy National Service Center has attained full operation. Scientists and physicians throughout the United States and abroad are striving to find new and better drugs and to perfect techniques for using anticancer agents. Of the thousands of drugs screened, more than 100 were being evaluated in studies involving nearly 5,000 patients. Heartening results were reported, adding support to the belief that powerful drugs for the lasting control of cancer will be developed.

The progress in these three areas was made possible in part by the steady advance of knowledge concerning the biochemistry of cancer, the relationships between tumor and host, the mechanism of carcinogenesis, and other fundamental aspects of the cancer problem.

INSTITUTE RESEARCH

Scientists of the National Cancer Institute and the Division of Biologics Standards have continued their collaborative investigation of the agent that causes multiple tumors in mice, rats, and hamsters. In one study they demonstrated that the agent, polyoma virus, is a single organism rather than a group. They also reported that the development of such tumors in hamsters can be prevented with injections of a "neutral" mixture containing the virus and specific antibodies against it. Ninety-seven percent of hamsters so treated failed to develop tumors during a six-month period, whereas two-thirds of those that received the virus alone died of tumors within five months.

In another virus study, an Institute scientist extracted from the experimental mouse tumor, sarcoma 37, a virus that produces leukemia when inoculated into mice. The disease appears within 10 weeks in all mice injected on the first day of life. In contrast to other leukemia-producing viruses that affect mice, this agent elicits the disease in several different strains, is active in adults as well as newborns, and produces a disease indistinguishable from spontaneous mouse leukemia. Research is under way to determine the relationship, if any, between this agent and other mouse leukemia viruses.

An epidemiological study of lung cancer showed that the risk of this disease is as excessive in women who smoke cigarettes as in men smokers. This study, which confirmed the work of other investigators, suggests that there is no factor peculiar to men which contributes to the development of cancer of the lung.

Epidemiological research also produced valuable information on the declining rate of stomach cancer in the United States. Institute scientists reported: (1) the trend is observed in some foreign countries; (2) stomach cancer occurs more frequently in members of the lower socio-economic groups, but does not seem to be associated with

occupation; (3) there is no significant variation in the stomach cancer rate for urban and rural residents; and (4) stomach cancer rates are higher in the northern United States, paralleling the international distribution of this malignancy. The investigators suggest that future studies in this area might profitably be concerned with the role of heredity and diet in the etiology of gastric cancer.

Institute scientists reported continued progress in their study of the significance of tumor cells in the circulating peripheral blood. Specimens of blood from 100 diagnosed cancer patients and 200 presumably well persons were examined cytologically. Malignant cells were detected in 39 percent of the cancer patients, and the findings were considered suspicious in another 10 percent. Among the well persons, on the other hand, cells considered to be cytologically malignant were found in only one person, or 0.5 percent of the control group. The scientists suggested that this technique may help in establishing a primary diagnosis and in postoperative followup.

Staff scientists reported their observations of the use of the drug methotrexate in 27 patients with choriocarcinoma, a rare, highly malignant uterine tumor. All but five of the women were gravely ill on admission to the Clinical Center. Most of them showed spread of the disease to the lungs, and a few presented evidence of central nervous system involvement. Complete remissions, with no evidence of recurrence for 8 to 29 months, were observed in 5 patients. Eleven patients showed remission with persistent manifestations of disease, and the remaining 11 died.

GRANT-SUPPORTED RESEARCH

An Institute grantee at the Sloan-Kettering Institute for Cancer Research published a report on the effect of combustion temperature of tobacco on the production of suspected carcinogenic agents. Materials obtained by burning tobacco at temperatures of 880° C. to 560° C. were administered to mice and rabbits. The most highly carcinogenic material studied was that formed at 880° C., the approximate burning temperature of cigarettes. Tobacco burned at decreased temperatures was progressively less carcinogenic, and no activity was obtained from the 560° C. material. The author suggested that lowering the burning temperature of cigarettes to a range of 700° C. may provide a lead to a solution of the tobacco-cancer problem.

Another grantee, at Columbia University College of Physicians and Surgeons, reported the results of a study leading him to suggest that tobacco smoke and air pollutants may act in combination to produce lung cancer, thus accounting for the higher incidence among urban, as compared with rural, residents. In a two-year study, the backs of mice were treated with various combinations of tobacco tar and known carcinogens—croton oil and the air pollutant benzpyrene. The ani-

mals were observed for the development of benign and malignant tumors. All procedures eventually yielded benign skin papillomas that sometimes progressed to malignancy. However, the combination of tobacco tar and benzpyrene produced a greater percentage of malignant carcinomas than did any other treatment. The problem of lung cancer and the various environmental factors that appear to be associated with it are being studied by a number of grantees.

A team of Institute grantees at the University of Wisconsin School of Medicine reported the results of clinical trials with 5-fluorouracil (5–FU), an anticancer agent first described in 1957. Of 35 patients who received an adequate therapeutic dose of 5–FU, 9 showed regression of tumors of the breast, liver, rectum, and other sites. The majority of the treated patients reported subjective improvement and lessening of pain. This study is being continued as part of the national cooperative program of chemotherapy research.

In another of the cooperative clinical studies, a grantee at the Mayo Clinic undertook to evaluate a derivative of testosterone propionate in the treatment of advanced breast cancer. Previously, testosterone propionate had been the most effective of the male sex hormones. The derivative, however, produced a significantly higher percentage of temporary regressions. In addition, the new drugs appeared to produce less masculinizing effects than did testosterone propionate, suggesting that therapeutic value may not be directly correlated with male hormonal activity.

Institute of Dental Research

The program of the Dental Institute is concerned with research investigations and training in matters relating to the cause, prevention, diagnosis, and treatment of disease and abnormalities of the oral cavity and its associated structures. The continuing high prevalence of oral diseases, particularly dental caries and periodontal disease, and the lack of basic knowledge concerning their cause, gave impetus to broad-spectrum laboratory and clinical studies in 1959.

Investigations using the germ-free technique in the testing of pathological effects of microorganisms on oral soft tissue have demonstrated that tartar-like deposits can occur on the molar teeth of germ-free animals. This challenges the recognized concept that bacteria cause, in some way, the formation of tartar, a suspected causal factor in periodontal disease.

In studies of nutrition and oral disease, certain dibasic phosphates have proved effective as dietary additions for the control of experimental dental caries. A clearer understanding of this relationship

and its possible application to dental public health practices is being explored in large-scale cooperative clinical tests.

In the field of epidemiology, group population studies of periodontal disease continues in many parts of the world, including most recently Ethiopia, Peru, and Ecuador. Preliminary findings point to a periodontal disease profile somewhat different from that seen in this country. The differences are being fully evaluated from an environmental, nutritional, and biochemical standpoint.

Studies with experimental animals have produced data suggesting that dental caries is closely related to the establishment of a specific bacterial flora. It might therefore be considered a transmissible disease under certain conditions.

Clinical studies of dental caries continue to advance knowledge of the types of microorganisms involved, the chemical aspects of the disease process, and the relationship of caries to the body as a whole. Other study areas include biologic effects of high-speed instrumentation procedures, periodontal disease, psychosomatic factors in oral disease, and oral and facial abnormalities.

The Institute increased its support of dental research projects in institutions in this country and abroad. Further extension of awards in the area of training continued in an effort to meet the urgent need for scientific manpower oriented in dentistry.

Heart Institute

Fundamental and clinical research, at the Heart Institute and in the institutions it aids through grants, continued to reveal facts essential to the understanding and control of cardiovascular disease. Programs aimed at increasing the number and quality of skilled investigators, teachers, and physicians were initiated. The application of existing knowledge was expanded in many areas.

Atherosclerosis still receives a major share of Heart Institute efforts. In this disease, fatty materials accumulate in the walls of blood vessels and narrow them. Complete obstruction of a vessel frequently results in a blood clot. When atherosclerosis obstructs blood vessels supplying the heart, it is responsible for coronary occlusion, or heart attack. Obstruction of blood vessels supplying the brain leads to strokes. Because fatty deposits are primary to these conditions, the Heart Institute is studying fats in the body, including the processes by which they enter and leave the blood.

A new technique now being applied to this problem is vapor phase chromatography. Heart Institute laboratories have made substantial contributions to instrumentation and methodology in this field. The

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technique permits minute amounts of chemical substances to be separated and their components to be identified and measured. Thus fatty components of blood and atherosclerotic lesions are being individually examined.

The effect of various diets on blood cholesterol are a continuing interest. Attempts, as yet unsuccessful, have been made to diminish the cholesterol-elevating properties of the fatty acids in milk. In other studies the purported beneficial effects of certain margarines are being evaluated.

In the field of hypertension, intensive efforts are being made to develop and clarify the role of drugs for controlling the blood pressure. Certain derivatives of reserpine, the active component of Indian snakeroot, can lower blood pressure as does reserpine, but without producing tranquilization. Institute scientists have found that these derivatives deplete peripheral nerve endings of their supply of norepinephrine, the transmitter substance for blood vessel constriction, while leaving relatively unchanged the concentrations of transmitter substances in the brain. This indicates that the effects of reserpine on blood pressure are due to action at peripheral vascular sites and are unrelated to the tranquilizing activity in the central nervous system.

A striking example of a therapeutic advance derived from basic studies arose during the year in the treatment of hypertension. Biochemical research undertaken several years ago was aimed at clarifying the mechanisms by which certain physiologically active substances are produced and destroyed in the body. Thus the chemical pathways by which serotonin and epinephrine are produced and metabolized were defined. Heart Institute workers showed that an enzyme known as monoamine oxidase plays a central role in the destruction of these substances. It was also observed that chemicals with ability to inhibit the enzyme markedly lower the standing blood pressure. Trial of a highly active monoamine oxidase inhibitor in Clinical Center patients has indicated that unless unpredictable side effects develop, the drug should prove valuable in the treatment of severe hypertension.

In the past few years, as more and more congenital and acquired heart defects have become amenable to surgical correction, various methods of catheterizing the chambers on the left side of the heart have been developed. Left heart catheterization is frequently essential to precise diagnosis and evaluation of patients to determine the advisability of surgery. In right heart catheterization (for which a Nobel prize was awarded in 1956) a catheter is simply introduced into a vein and passed directly into the right heart chambers. But easy access to the left heart has not been available. The safest ap-

proach hitherto in use—puncture of the windpipe through a bronchoscope—entails considerable discomfort for the patient, and other procedures involving puncture of the heart wall are not without hazard. During the past year a new and promising procedure was developed in the Heart Institute's Clinic of Surgery. First a right heart catheterization of the usual type is made, and then a needle is passed through the catheter and through the thin partition separating the right and left auricle to reach the left side of the heart. The procedure is performed without discomfort to the patient and appears to carry even less hazard than the bronchoscopic approach.

GRANT-SUPPORTED RESEARCH

Data from a number of studies have indicated that substitution of vegetable oils for most of the animal fats in human diets reduces the serum cholesterol level. Dietary regimens based on these findings, in which the substitution is made essentially as medication, are being evaluated. Also under investigation are the effects of varying the protein-fat ratio, types of protein ingested, caloric balance, and intake of certain vitamins.

Research investigators at several institutions are exploring the possibility of augmenting the body's clot-dissolving mechanism as an approach to disorders in which blood clots obstruct the circulation. Considerable evidence indicates that the normal balance of coagulation and dissolution is upset in blood-clotting diseases. Ways of enhancing the dissolving mechanism by use of plasminogen, plasmin, streptokinase, or other activating enzymes are being investigated. Studies in animals have shown promising results, and limited trials in human patients have been encouraging. Further clinical studies with more potent and more purified agents are in progress.

A valuable diagnostic advance during the year is a new technique for visualizing the coronary arteries by injecting a contrast substance into the aorta during induced arrest and blockage of the ascending aorta. The method, proven safe and effective in animals, is being used clinically.

At Mount Sinai Hospital in New York, animals studies have shown that X-rays applied to the heart in successive, small doses raise survival rates following experimental coronary occlusion, and suggest that cardiac irradiation may increase the supply of blood to the heart.

A new technique for experimental production of inborn cardiac defects was reported by a grantee at Northwestern University Medical School. Congenital heart malformations were produced in rats by exposing their mothers to an atmosphere of increased carbon dioxide concentration during an early stage of pregnancy. The findings suggest that altered blood gas levels in pregnancy may lead to similar defects in humans.

Institute of Mental Health

The past year witnessed a sizable expansion of the Institute's support of mental health research and training. Broad programs of research were supported in a number of critical areas. Over $4 million was expended for support of 180 projects in the field of psychopharmacology. A total of 93 mental health project grants, amounting to over $2¾ million, supported pilot studies and demonstrations designed to develop new methods of care, treatment, and rehabilitation of the mentally ill. There was a substantial increase in the number of investigations on problems of schizophrenia, alcoholism, and mental retardation.

A large number of studies continued to be concerned with such basic problems as the biology and biochemistry of mental illness, the role of psychological and social factors in normal and abnormal behavior, child development, the epidemiology of mental illness, juvenile delinquency, aging, and mental retardation. Investigations were supported in almost all the biological, psychological, and social sciences relevant to mental illness.

Among the more noteworthy advances during the past year has been the emergence of new pharmacological agents potentially useful in the treatment of depression and the discovery of new psychosis-producing drugs which should prove valuable in biochemical research on the function of the brain.

BASIC RESEARCH

In the Institute's basic research program, scientists in several major disciplines have been working on key problems, ranging from mechanisms which regulate hormone production, genetic transfer, and energy release, to the effect of community organization and attitudes on mental health and disease.

Research on the limbic system (the so-called primitive forebrain) has aided in identifying brain loci responsible for activity vital to preservation of the species and of the individual. A series of experiments on poisons affecting different regions of the brain has led to knowledge with implications in brain damage associated with chronic alcoholism. The Addiction Research Center has been studying biochemical factors in drug addiction, and has been evaluating drugs that modify mental processes and behavior.

The Institute's multidisciplinary program of research on biological factors in schizophrenia moved into full operation during fiscal year 1959. This program has been characterized by careful attention to scientific design and to sources of false-positive errors common to such research. Many of the concepts underlying these controlled studies are becoming widely accepted by other institutions.

CLINICAL INVESTIGATIONS

The opening of the Clinical Neuropharmacology Research Center, a collaborative research program with Saint Elizabeths Hospital, marked the beginning of a broad series of studies on the impact of drugs on mental illness. It augments a major interdisciplinary program of studies on the biological aspects of behavior.

Another area of intensive interest involved studies of the psychological and social forces which influence behavior and personality development. These include expanded activities in the field of normal child development; the inception of a program designed to elucidate the psychological basis for successful adaptation and creativity; and studies of the dynamics of family relationships. The program for the study of hyperaggressive children progressed to the point where it was possible to discharge the patients to treatment in a school setting.

COMMUNITY SERVICES

Probably the most far-reaching development in community mental health during the past few years has been the enactment of State legislation providing for continuing State grants-in-aid to localities. There has been rapid and extensive expansion of local services. All States now provide mental health consultation to nonpsychiatric agencies and groups. Several localities have established experimental programs to handle psychiatric emergencies more effectively and to develop facilities which will obviate the need for long-term hospitalization. The number of general hospitals accepting psychiatric patients rose from 43 in 1939 to almost 1,000 in 1958.

Demonstrations and studies designed to improve the care, treatment and rehabilitation of the mentally ill increased considerably during the past year. By the end of the year, 102 of these projects had been approved and were being supported.

More attention was given to consultation activities in such important mental health areas as school mental health, alcoholism, and mental retardation. Greater use was made of Technical Assistance Projects, through which States and localities are assisted in developing new approaches to mental health problems.

TRAINING

Substantially increased funds for mental health training enabled the Institute to expand and inaugurate several programs. Support was extended for training biological and social scientists who wish to prepare for research careers in mental health, and increases were made in the programs designed to train personnel for research in psychiatry, psychology, and social work. A new program of support in the basic sciences of human behavior at the undergraduate medical school level, announced in August 1958, acquaints the future physi-

cian with knowledge about the interrelations among social, psychological, and biological factors in health and disease.

The general practitioner training program, initiated with a special Congressional allocation of $1,300,000, is expanding the Nation's psychiatric resources in two ways. It supports psychiatric residency training for practicing physicians who wish to become psychiatrists, and it enables medical schools, hospitals, clinics, and professional societies to offer postgraduate courses and seminars in psychiatry for physicians who are not specializing in this field.

BIOMETRICS

Important research studies on the epidemiology of mental illness were completed, including one on admissions to 11 State mental hospital systems. The first national summary of characteristics of outpatient clinic patients was completed, and historical material showing trends in mental hospitalization for the period 1939 to 1955 was compiled from extensive data. Several field studies on clinic and hospital populations in Maryland were initiated, and the Model Reporting Area was expanded so that it now includes 21 States.

Institute of Neurological Diseases and Blindness

Neurological research at the present time appears to offer outstanding opportunities at the extremes of the life cycle—infancy and old age. Among the disorders of infancy and childhood are cerebral palsy, mental retardation, congenital malformations, muscular dystrophy, and epilepsy. In later life, Parkinson's disease and cerebrovascular diseases occur. Disorders of sight, speech, and hearing are pronounced both in childhood and old age.

During the past year, artificial induction of seizures in epileptic patients has made it possible to locate more accurately the area of the brain involved. This has increased the accuracy of surgical removal of epileptic foci from which the seizures originate. In the chemical control of seizures, it has become clear that hormonal factors may play a part in influencing seizure threshold and susceptibility to convulsions.

Investigators are encouraged by research findings relating to the biochemistry of multiple sclerosis. Synthesis of sphingosine, previously reported, has been followed by discovery of a biological mechanism that yields a precursor of sphingosine. More has been learned about butylcholinesterase, an enzyme related to demyelinization. Inhibitors of this enzyme are reported to cause loss of myelin in fowl.

Among the most difficult neurological problems have been the disorders of muscle. It is known that in dystrophic muscle the protein content is abnormal. The distribution of this protein is being studied

by means of fluorescent-labelled elements, radioactive tracers, and the development of specific antibodies which carry a dye directly to the protein molecules under investigation. Through such studies, it will be possible to distinguish the actual abnormal molecules in the diseased muscle, and perhaps to find ways to modify them.

Major advances have gradually been made in knowledge of the basic structure of the ear and of the pathways over which sound is conducted to the central nervous system. Through electrophysiological techniques, the passage of a sound impulse can be traced from the eardrum to the nerve receptor organs in the internal ear, and then to the area of the brain where the sound is received and interpreted. A new approach employs animals trained to respond to a sound with a highly organized pattern—one designed to test the animal's ability to recognize pitch, loudness, quality, or location of the source. In these animals, the deficit resulting from surgical removal of specific areas of the brain can be determined.

The most common causes of blindness are cataract and glaucoma, and the incidence of these disorders is increasing with the longevity of the population. At present, there is no medical means of treating cataracts. Surgical removal of the lens, however, has been greatly improved. The most recent advance has been the discovery that the supporting ligaments of the lens can be weakened or dissolved by an enzyme, alpha-chymotrypsin. Thus the lens can be removed without tearing the connecting tissues.

A new method of sealing retinal breaks has been devised, utilizing an intense light which produces a burn at its point of focus. Thus the retina can be sufficiently scarred to seal it to the underlying choroid.

GRANT-SUPPORTED RESEARCH

The most recent development in the Institute's total program has been the creation of the collaborative research area, designed to coordinate studies that would be difficult to carry on within a single institution. The largest such program is the collaborative project for the study of perinatal pathology, officially begun in January. This project is of fundamental importance in relation to cerebral palsy, mental retardation, and congenital forms of vision and hearing loss. It is also concerned with the normal processes of conception, pregnancy, delivery, and growth of the newborn child. Many of the methods were carefully pretested during the year, and collection of data in accordance with this protocol is now under way.

Cooperative projects continue in cerebrovascular diseases. Several institutions are studying aneurysms—the dangerous ballooning of blood vessel walls—and their correction by surgery before fatal hemorrhage. Another project explores the effects of anticoagulant

drugs on several hundred patients. A clinical study of the narrowing of brain arteries of various sizes was completed.

Bureau of Medical Services

The Bureau of Medical Services operates hospitals and outpatient clinics, foreign quarantine activities, and the health program for American Indians and Alaska Natives. It aids in construction of community hospitals and health facilities and in the development of the Nation's dental and nursing resources.

Research is carried on in hospital design and management, epidemiology and treatment of tuberculosis and other infectious diseases common among American Indians and Alaska Natives, control of yellow fever and the mosquitoes that transmit it, measurement of dental malocclusion, and many phases of nursing practice. National, regional, and State studies are made of the present and future supply and demand for dentists and nurses. The PHS hospitals conduct clinical investigations in the treatment of leprosy and of narcotic addiction, and in many other aspects of modern medical practice. They are among the Nation's primary resources for the training of physicians, nurses and other health personnel.

Hospitals and Outpatient Facilities

The Division of Hospitals operates the medical care program for legal beneficiaries of the Public Health Service. Besides American seamen, these patients include officers and enlisted men of the Coast Guard, officers and crew members of the Coast and Geodetic Survey, commissioned officers of the Public Health Service, civil service employees of the Federal Government injured in performing their work, active duty and retired members of the Uniformed Services and their dependents, and several other groups.

In 1959, the Division maintained 16 hospitals, 26 outpatient clinics, and 99 outpatient offices. Twelve of the hospitals provide general medical and surgical services; one is exclusively for patients with tuberculosis; two are for the treatment of narcotic addiction and other neuropsychiatric disorders; and one provides care for persons with leprosy. The general hospitals are in major port cities, such as Boston, New York, Baltimore, New Orleans, Chicago, Detroit, San Francisco, and Seattle. In certain other places, depending upon the concentration of beneficiaries, outpatient clinics and outpatient offices have been established. The clinics, staffed by full-time personnel, provide comprehensive medical, dental, and allied health services.

Local physicians conduct the outpatient offices in their private facilities on a part-time basis, as needed.

VOLUME OF SERVICES

Inpatient admissions in all of the Public Health Service hospitals during 1959 totaled 49,786—a 1.9 percent increase over 1958. In addition, 720 babies were born in these hospitals in 1959, as compared with 650 the year before. The average daily census was 5,140, a decrease of 2.7 percent. Meanwhile, the number of outpatient visits to hospitals and clinics rose 1.7 percent—to 1,108,751.

General hospitals.—The general hospitals admitted 45,072 patients in 1959, a 3 percent increase over the 43,760 admissions in 1958. The average daily patient load at 2,703 was off 1.5 percent. Days per admission at the general hospitals in 1959 averaged 21.9 as compared with 22.9 in 1958.

Tuberculosis.—The Division's tuberculosis hospital at Manhattan Beach, Brooklyn, N.Y., admitted 309 patients in 1959, a decrease of 18 percent. The average daily census dropped 14.8 percent.

All the accepted new drugs in the treatment of pulmonary tuberculosis are used at the hospital, and the staff keeps abreast of the status of experimental drugs and of therapeutic and surgical procedures for diseases of the chest.

Leprosy.—The U.S. Public Health Service Hospital at Carville, La., is the only hospital in the continental United States devoted exclusively to the treatment and rehabilitation of patients with leprosy.

Admissions at Carville totaled 62 in 1959 as compared with 73 the year before; the average daily census decreased from 296 to 277.

Throughout the year, efforts were intensified toward realizing Carville's potential as a principal center for training of personnel and investigation in the field of leprosy. An apportionment to the hospital earmarked for research permitted reorganization and expansion of the laboratory branch. The research effort was chiefly directed toward some of the still unknown characteristics of M. Leprae and the group of bacteria to which this organism belongs. Cooperative projects with research workers elsewhere were continued. A 15-minute scientific film, "Recognition of Leprosy," was completed.

More than 8,000 visitors came to the hospital during the year. Many were physicians, nurses, and other health workers from all over the world who came to observe and learn the method of treatment.

Narcotic addiction.—The U.S. Public Health Service Hospitals at Lexington, Ky., and Fort Worth, Tex., have been in operation since 1935 and 1938, respectively, primarily for the treatment of narcotic addicts, as defined by Federal law. They also admit mentally ill patients entitled to care as beneficiaries of the Federal Government.

In 1959, these hospitals admitted 4,343 patients, a 6.4 percent decline from 1958. Addict admissions fell from 4,317 to 3,979; "nonaddict" admissions rose from 324 to 364. The average daily census of addict patients was off 2.9 percent from 1,367 to 1,328. Voluntary patients accounted for 86 percent of the addict admissions.

MEDICARE

The Dependents' Medical Care Act, which became effective December 7, 1956, authorized Public Health Service hospitals and clinics to admit active duty and retired members of Federal Uniformed Services and their dependents, and the dependents of deceased members of these services. Patients eligible under this MEDICARE program made increased use of Service facilities during the past year. For example, admissions of Uniformed Service personnel and dependents to USPHS hospitals in June 1959 totaled 1,253, an 11.3 percent increase over June 1958; the 33,997 outpatient visits in June 1959 was 16.8 percent greater. The June 1959 average daily census of Department of Defense beneficiaries in USPHS hospitals totaled 242. The number of dependents of PHS beneficiaries in Army, Navy, and Air Force hospitals averaged 115 during the same month.

TRAINING MEDICAL CARE PERSONNEL

Over 280 physicians, dentists, pharmacists and dietitians participated in internship and residency training programs in U.S. Public Health Service hospitals during fiscal year 1959. Ten of the hospitals are approved for post-graduate medical training by the American Medical Association's Council on Medical Education and Hospitals. Residency training is offered in a dozen medical specialties. Nine of the hospitals have approval by the American Dental Association to conduct dental internships. Approved dental residencies in oral surgery and prosthodontia were in progress at the Service hospitals at Staten Island and Seattle, respectively.

Affiliations with colleges and technical schools afford practical experience and clinical instructions to more than 100 undergraduates in physical therapy, occupational therapy, vocational therapy, social service, and medical technology. During the year, an affiliation in dental hygienist training was initiated by the USPHS Hospital in San Francisco with the University of California School of Dentistry's Division of Dental Hygiene. Similar programs were in progress at the USPHS Hospital in Seattle, cooperating with the University of Washington's Oral Hygiene Department, and with the dental assistant training program of the Edison Technical School. The USPHS Hospital in Baltimore, Md., has an approved 1-year course in medical record library science, and the USPHS Hospital on Staten Island, N.Y., provides the clinical nursing portion of the hospital corpsmen training given by the Coast Guard.

Early in the year, the USPHS Hospital in Chicago, Ill., received a Certificate of Merit signed by the Secretary of the Army and the Commanding General of the Fifth Army for "whole-hearted aid rendered to the 801st General Reserve Hospital in support of food handlers' and X-ray technicians' training * * *."

CLINICAL INVESTIGATIONS

In 1959, the Division of Hospitals approved 59 clinical investigation projects to be conducted at 10 of its hospitals. These investigations include clinical trails and evaluations of newly developed drugs and procedures, further inquiries on heart, kidney and liver pathology, diagnosis and treatment of cancer, and studies of dental procedures.

Dedication of the Seamen's Memorial Research Laboratory at the U.S. Public Health Service Hospital in New Orleans, marked the first instance of a Service hospital allocating a structure exclusively for research purposes. Formerly used as quarters for employees, the renovated building contains laboratory space and equipment to facilitate the hospital's performance of clinical investigative projects in basic sciences and in such fields as cancer, heart disease, and tropical diseases. Initial research activities in progress represent cooperative effort among the hospital, local medical schools, and the Service's National Institutes of Health.

FEDERAL EMPLOYEE HEALTH PROGRAM

The Federal Employee Health Program closely parallels the practice of occupational health. Public Health Service medical and nurse officers in this program have responsibility for planning and conducting employee health activities designed to maintain optimum health and well-being among Federal employees, including public health, preventive health, and emergency medical care.

On a reimbursable basis, the Program operates 30 health units for Federal agencies that request this service. Located in Washington, D.C., Denver, Colo., New York, Kansas City, Boston and Waltham, Mass., and Belle Meade, N.J., these units are available to a population of over 50,000 Federal workers.

During the year, several health units cooperated in tests and demonstrations for visual acuity, glaucoma, and diabetes. They also participated in vaccination projects against poliomyelitis and influenza.

Twenty-six units which participated in the new Executive Health Maintenance Program gave 449 physical examinations to key employees holding executive positions in Federal agencies. This program, begun in January 1958 in one health unit, was expanded to its present scope during fiscal 1959 by the addition of contract physicians, serving one or more clinic sessions per week, to most of the units which previously provided only nursing services.

FREEDMEN'S HOSPITAL

Outpatient visits at Freedmen's Hospital in Washington, D.C., reached 97,298 in 1959, more than 2,000 above the previous year. Inpatient admissions increased slightly, totaling 14,051.

Freedmen's serves as the clinical teaching resource for junior and senior students of the Howard University College of Medicine. The hospital also offers approved internship and residency training as well as accredited educational programs in other professional categories, such as nursing, X-ray technology, and medical social work.

During 1959, a total of 46 residents received advanced training in 13 medical specialties. In addition, there were 16 medical interns, 2 dental interns, and 7 research fellows.

The School of Nursing graduated 22 students on September 12, 1958, bringing its grand total of graduates to 1,374. Three members of the class subsequently scored "cum laude" on State Board Examinations.

Four X-ray technology students were graduated from the hospital's recently approved course and all passed the qualifying examination conducted by the American Board of X-Ray Technology. Two pharmacists and ten dietitians also completed internships. The Social Service Department trained one student for field work practice in medical social work.

Over 40 clinical research projects were under active study at the hospital during the year. Approximately 35 scientific articles by staff members were either already published or in press at year-end.

Foreign Quarantine

Protection of the United States against diseases that may be brought in from other parts of the world continues to be a major responsibility of the Public Health Service.

In spite of the increasing danger caused by the increased speed and volume of international traffic, no quarantinable diseases were introduced into the United States in 1959. For the sixth consecutive year, the Nation was free from smallpox, despite outbreaks throughout the world.

There was an outbreak of smallpox in Heidelberg and East Berlin, Germany, and a recurrence of the disease in Liverpool, England. Scattered cases of smallpox occurred near the Red Sea and the Persian Gulf, including the countries of Kuwait, Qatar, Iran, Iraq, and Egypt. These are areas of epidemiological importance because of commerce with the Middle East oil fields.

In the Far East, smallpox remained endemic and epidemic. An outbreak occurred in Thailand where for 30 years there had been only scattered cases. The disease remained at a low endemic level

in most countries of Africa, but occurred in the port of Dakar, French West Africa, an important crossroad of international traffic. In South America, there was an outbreak of smallpox in Brazil which might have been a threat to the United States except for protection given by the staff of the Division of Foreign Quarantine.

Smallpox is a potential danger to the United States because of the wide distribution of the disease, the constant increase in number of Americans traveling to remote areas of the world, and the continued reduction in travel time between countries by air transportation. It is a disease which can be controlled by maintaining a vaccinated population, including the moving population of persons in international traffic.

Cholera continued to be confined to the Far East. It reappeared in Thailand in 1958 and remains at an endemic level there. An epidemic of cholera was reported in Nepal.

Yellow fever was reported during the year in a forest area of Trinidad—its second occurrence there in the past 5 years. Because of a vigorous vaccination program and other control measures, it did not spread to other areas.

Sixteen additional yellow fever vaccination centers were designated in the United States, making a total of 138 in Public Health Service facilities and in medical facilities of health departments and private organizations. The majority of these centers offer service to the general public.

The Division's program to control the yellow fever mosquito was extended to cover international traffic areas of Puerto Rico and the Virgin Islands where the index of the *Aedes aegypti* mosquito was high. Thus the *aegypti* population in many international airports and docks was greatly reduced.

Breeding of this mosquito was also reduced in international traffic areas of the yellow fever receptive zone across the Southern States.

Aircraft, ships, and land conveyances arriving in international traffic channels were examined for presence of arthropods that can carry disease, and insecticides were applied in many cases.

A case of vivax malaria in a crew member of an alien ship was detected by quarantine personnel at Tampa, Fla., and treatment was begun. This action prevented recurrence of the disease in an area where malaria has been successfully eradicated.

VOLUME OF INTERNATIONAL TRAFFIC

Inspections of aircraft for quarantine or immigration-medical purposes increased again, from 68,703 in 1958 to 70,607 in 1959. Inspections of ships decreased slightly, from 34,120 in 1958 to 33,271 in 1959.

Travelers arriving in the United States from abroad, including the interior of Mexico, who are subject to quarantine examination in-

creased from 5,217,627 to 5,264,354. Largely because of the occurrence of smallpox in Germany and England, 607 persons were detained in isolation at ports of entry, compared with 124 in 1958. The number of incoming travelers who were allowed to continue on to their destinations in the United States, but were subject to medical observation for a time, was 117,310 as compared with 58,083 in 1958.

MEDICAL EXAMINATIONS

General program.—The number of aliens examined abroad by medical officers continued to decrease, from 190,526 in 1958 to 155,068 in 1959; those examined were mostly immigrants. Aliens examined upon arrival at United States ports increased from 2,503,740 to 2,669,768; these included tourists, business men, and students. Of the aliens examined abroad, 2,776 were found to have diseases or conditions excludable under the immigration law. Among those examined at ports in this country, 2,695 were found to have excludable diseases or defects; many had been so diagnosed abroad, but were admitted under special provisions of the immigration law.

Immigration of aliens with tuberculosis.—The immigration of certain aliens who have tuberculosis continued for the second year under a provision of Public Law 85–316 which allows this privilege to those who are close relatives of American citizens or resident aliens. If the disease is in the communicable stage, they remain in isolation while aboard ship and while traveling to hospitals where care has been arranged for them. Under this law, quarantine officers abroad examined 1,073 aliens with confirmed or suspected tuberculosis during the year, and officers at U.S. ports examined 1,445.

Migratory farm labor.—Under an agreement with the Department of Labor, the Division is responsible for medical examinations of Mexican migratory farm laborers who cross the border to work on farms and ranches in the United States. Preliminary examination and vaccinations are given at three migratory centers in Mexico. Further medical examination, including X-raying and serologic testing for syphilis, is given at five reception centers along the Mexican border in the United States. In 1959, the eighth year of this program, 437,920 laborers were examined, with 8,370 rejections, at the three centers in Mexico; 489,477 examinations were made, and 5,215 laborers were rejected, at the reception centers on the border.

Use of the plasma reagin test developed by the Public Health Service's Communicable Disease Center for the rapid testing for syphilis was extended to all five reception centers; 339,064 serologic tests were performed and 20,693 positive reactors were identified. With few exceptions, laborers showing positive reactions were treated with penicillin.

OTHER QUARANTINE ACTIVITIES

A new office was opened in Montreal, Canada, to handle quarantine activities for traffic in the St. Lawrence Seaway. The visa medical examination program for Eastern Canada was reorganized, and supervision was placed under the Toronto office.

Rat control in port areas and on vessels in international commerce was continued, with good results, as part of the sanitation program. This program was broadened to include measures to improve food sanitation on vessels from foreign ports.

In response to a request made through the International Cooperation Administration, the Government of Iran received technical advice from the Public Health Service in surveying, reorganizing, and modernizing its quarantine program.

Health Services for Indians

In November 1958, eyesight was restored to a 16-year-old Eskimo girl in the Public Health Service Hospital at Anchorage, Alaska, which serves beneficiaries of the Indian health program. This was the result of the first corneal transplant ever performed in Alaska.

The successful conclusion of this complicated operation holds deep significance for the Indian and Alaska Native people. It is an example of the steady progress being made in the improvement of their health services, a symbol of the joint effort of public health, modern medicine, and the people to raise the levels of Indian health.

Health officials classify such an operation as "elective surgery"—medical service provided to improve the value of human life as distinguished from that essential to the actual preservation of life. While elective surgery is not wholly new in the Public Health Service's Division of Indian Health, there has been little opportunity to provide this type of service in the past. The hospitals serving Indians and Alaska Natives were for years so overburdened with efforts to save lives that they were in no position to undertake costly and difficult procedures to bring a better life to many who could be benefited.

Shortages still exist, but throughout the program, with its hundreds of health facilities that reach from above the Arctic Circle to the Mexican Border, the major emphasis in 1959 has been on improvement in the quality of health services.

A larger health staff, improved facilities, more funds for contract patient care and specialist services, and wider opportunities for staff training are key factors that make possible the increases in elective surgery, more effective protection of the Indian and Alaska Native populations from disease, and better treatment for illness of all types.

About 345,000 Indians and 37,500 Alaska Natives depend to vary-

ing degrees for their essential health services on the Indian health program. Many of them know no other source for these services. To meet their needs for both preventive services and medical care, the Division of Indian Health conducts the largest and most comprehensive civilian health program within the Federal Government. Services of this program are provided through its 53 hospitals and its system of field health clinics and other facilities at about 300 locations. In addition, beneficiaries of the program are served extensively through contractual arrangements with non-Federal hospitals, private physicians and dentists, and other health agencies.

The 1959 appropriation for Indian health activities amounted to $42,327,000. An additional sum of $6,010,000 was appropriated for construction of new health facilities, staff housing and hospital improvements.

NEW AND IMPROVED HEALTH FACILITIES

A new regional hospital and medical center is now being built at Gallup, N. Mex. Participants in the ground-breaking on May 20, 1959, included representatives of the Indians whose health needs will be better served by the new facility, planners, administrators of Indian health and Indian affairs, physicians who may be called upon as specialists, and residents of the non-Indian community.

In this setting, construction started on the largest and most ambitious of many projects under way to provide better facilities for Indian health. Nearly a hundred miles to the north, at Shiprock, N. Mex., another Indian hospital is approaching completion. This 75-bed hospital will be ready for use by December 1959.

On January 30, 1959, a contract was awarded for construction of the new 50-bed hospital being built at Kotzebue, Alaska. Replacing an old, unsafe, and inadequate hospital at the same location, this facility is one of the Nation's only two hospitals located above the Arctic Circle.

Just before the close of the fiscal year, a contract was awarded for construction of a new 50-bed hospital at Sells, Ariz. During the year, engineers of the Division of Indian Health and the Geological Survey of the Department of Interior succeeded in finding beneath the rocky crust of the Sonoran Desert—in which Sells is located—a suitable water source for the hospital. The lack of a source of water had long delayed the construction of the sorely needed hospital for the Papago Indians.

All 4 major hospital modernization projects authorized were underway at the year's end. Contracts were let for five additional modernizations. Of five major hospital alteration projects, one had been completed prior to the beginning of the year, and four were underway at the close of fiscal 1959. In addition, 14 new health centers and

field health clinics were completed; and contracts were awarded for 21 new staff housing units.

Under the terms of Public Law 85–151, enacted in 1957, 77 new beds for use by beneficiaries of the Indian health program are being provided in community hospitals now under construction for joint use by Indians and non-Indians. This law authorizes the Public Health Service to participate financially in the construction of such joint use facilities. The new beds for Indian use are in 10 hospitals located in California, Minnesota, Montana, North Dakota, and Wyoming.

TRENDS IN THE PROGRAM

Closer coordination of Federal, State, and local health services for Indians is resulting in better use of community health resources. Largely as a result of grants under the Hill-Burton program, many smaller communities in Indian Agency States now have excellent community hospitals which are close to Indian reservations and settlements. To an increasing degree, modern health services provided by these facilities are being utilized to augment the services provided through the 53 hospitals operated directly by the Indian health program. At the close of the year, contracts or arrangements for reimbursement for treatment of Indians were in effect with approximately 225 non-Federal hospitals.

Hospital services were discontinued at the small, uneconomical hospital in Nespelem, Wash., and at the one in Juneau, Alaska. Inpatient care for beneficiaries at these locations was shifted wholly to up-to-date community hospitals under contract. The Nespelem hospital was converted into an Indian health center providing both preventive and therapeutic services for outpatients. Upon closure of the hospital at Juneau, an outpatient health center for beneficiaries in that community was established at the St. Ann's Hospital.

Approximately $8 million was spent in 1959 on patient care provided through contracts with community hospitals and by individual physicians and dentists. Increasing sums were spent for specialist services which otherwise would have been unavailable.

Reflecting the dramatic successes achieved in efforts to cut tuberculosis incidence and death rates, arrangements were made to terminate operation of the 330-bed Indian tuberculosis sanatorium at Tacoma, Wash. The smaller numbers of tuberculosis patients needing hospital treatment in this area now receive care in contract facilities closer to their homes.

HEALTH PROBLEMS OF THE INDIANS

Most of the beneficiary populations live in relative isolation, without the health resources and services available to most of our population. Tens of thousands of Indians and Alaska Natives have had little

or no opportunity to learn the essentials of individual or community health protection. Nor have they the means for adhering to recommended health practices, even where these are understood. The majority do not even have access to toilets or sanitary privies. Too often, their foods are insufficient in kind or amount to permit nutritionally adequate diets. In many cases, their food is contaminated. Overcrowded and inadequate housing is commonplace.

Domestic water supplies used by Indians and Alaska Natives generally are grossly inadequate. Many thousands of these people must haul water a mile or more, often from polluted sources.

It is not surprising, then, that many of them die of diseases which pose no serious problems in most well-protected American communities. Their deaths from such preventable diseases as influenza, pneumonia, tuberculosis, and gastroenteritis are 3 to 9 times higher than in the general population. Average age at death among the Indians is 22 years earlier than the national average of 62. One-fourth of all Indian deaths occur among infants, compared with only 7 percent among the infants of the Nation as a whole.

SERVICES PROVIDED

Partly as a result of the declining tuberculosis patient load and the increasing volume of services to outpatients, hospital admissions showed a relatively small gain in 1959. Nevertheless the total number of admissions—more than 73,000—established an all-time record. Of these, 18,700—primarily general patients—were to contract hospitals, representing an increase of 12.5 percent over last year.

Throughout 1959, disease prevention continued to receive heavy emphasis. The outpatient departments of the Service-operated hospitals recorded 605,000 visits for treatment and preventive services, an increase of 5 percent over 1958. Indian health centers and field health clinics are providing a steadily increasing volume of preventive and therapeutic services in response to rising demands.

Dental examinations were provided for more than 67,000 patients. More than 164,000 patients were given dental treatments, including 9,500 treated by contract dentists. In addition, nearly 10,000 children received topical fluoride treatments to inhibit tooth decay.

The vast majority of program beneficiaries need dental care. However, limitations in the program make it impossible to serve more than about 20 percent of this population, with major attention being provided for children. Of those who do receive treatment, less than one-half of their dental needs can be met.

Qualitative improvements in services are not in all cases revealed in operating statistics. Today, for example, it is possible for a beneficiary to obtain the skilled help of a medical social worker in dealing with problems which, if unsolved, impede recovery or even stand in

the way of discharge from the hospital. Nutrition services are making headway against dietary problems which affect large segments of the beneficiary population. Health education, now including the production of modern teaching aids aimed specifically at tribal groups, is making a greater impact. Public health nursing, special services for mothers and children, and medical record and referral services were strengthened during the year.

ENVIRONMENTAL SANITATION

Of the major factors contributing to high disease and death rates among Indians and Alaska Natives, none is more significant than the unfavorable environment in which most of them live. This environment has been subjected to careful study in the field, and the extent of environmental health hazards is well defined.

Field surveys confirm the general use of unsafe water, dangerous disposal of human and other wastes near living quarters, contamination of food, infestations of rodent and insect pests, and grossly overcrowded and substandard housing. These factors are major causes of the high infant death rate, and the excessive death rates among all age groups resulting from infectious diseases such as tuberculosis and gastroenteritis.

Intensive efforts, directed by the program's sanitary engineers and carried out with the help of many Indian and Alaska Native sanitarian aides trained by the Public Health Service, are helping the beneficiaries to overcome their unfavorable environmental conditions. With this guidance and their limited resources, the Indians and Alaska Natives are developing new and safe water sources and are building sanitary waste and refuse disposal facilities.

On July 31, 1959, Congress enacted Public Law 86–121, which authorized the Service to provide sanitary facilities for beneficiaries of the Indian health program. Included are domestic and community water supplies and facilities, drainage facilities, and facilities for sewage and waste disposal. The law permits the Service to make joint arrangements for participating in such projects with tribal groups, local authorities, and other public and nonprofit agencies, both in construction costs and in subsequent operation and maintenance. The Service also is authorized to acquire necessary lands, accept contributions, and transfer completed facilities to State or local authorities or to the tribal groups concerned for continued operation and maintenance.

Hospital and Medical Facilities

The dollar volume of hospital and health facility construction started in the United States, both with and without Federal aid,

reached new peaks in fiscal 1959. However, there was little change in the total numbers of hospital beds and health facilities currently needed. Over the past decade substantial progress has been made in meeting needs for general and community hospitals, but progress in constructing other kinds of health facilities has been less rapid. Rising building costs, population growth, and the obsolescence and abandonment of old facilities are among the factors affecting the general rate of progress.

In addition to administering the Federal share of the construction program, the Division of Hospital and Medical Facilities conducted research and planning projects to bring about better use of hospital resources and services. To develop working principles for planning the hospitals and medical facilities of the future, four regional conferences were held in cooperation with the American Hospital Association.

An agreement was made with the Office of Civil and Defense Mobilization to develop plans for hospitals illustrating methods of protecting patients, personnel, and facilities from blast and fallout.

The Baptist Memorial Hospital in Oklahoma City was the first facility to benefit from the legislation of 1958 authorizing the making of construction loans in lieu of grants. The Baptist General Convention of Oklahoma, sponsor of the $4,533,355 project, received a loan of $507,568. The hospital was opened on April 15, 1959.

CHANGING NEEDS AND EMPHASES

Inventories from the States showed that 77 percent of the need for general hospitals was met in 1959, as compared with 75 percent in the previous year and 59 percent in 1948 when State inventory records first became available. The Nation's greatest need in health facilities continues to be additional chronic disease hospitals and nursing homes; the need met is only 15 percent and 35 percent, respectively.

There has been little change in the need for mental hospitals. There still are fewer beds in proportion to requirements than were reported in 1948—52 percent as compared with 55 percent.

For all types of hospitals, the Nation still needs 867,000 additional beds according to State plans on record January 1, 1959. In addition, 252,000 additional nursing home beds are needed for skilled nursing care, or 65 percent of the total requirements in this field.

RESEARCH—HOSPITAL ADMINISTRATION

Studies in "progressive patient care"—the better organization of hospital services around the medical and nursing needs of the patient—continued to take the spotlight, with special research designed to analyze hospital staffing patterns, bed allocations, and costs.

A project was begun to find ways to provide effective, economical hospital care in metropolitan areas. Some of the questions to be answered are how to measure the relative obsolescence of the hospital plant of major central cities and the need for additional services in areas of urban sprawl, and how to develop methods that will coordinate services in major metropolitan areas.

An evaluation and appraisal project—begun in 1957 to determine the effect of the small hospital on a rural community and the value of Public Health Service guide material in architectural and equipment planning—was completed in April 1959 and an analysis of the findings was under way as the fiscal year ended.

At the request of the Pennsylvania Department of Public Welfare, a joint study was begun of the cost of providing care in Pennsylvania nursing homes. It is designed to provide: (1) cost data on facilities of varying levels of service, for use in determining equitable public assistance payments; and (2) guide material for administrators of nursing homes.

Two architectural and engineering studies were completed, on the problem of controlling noise in hospitals and on requirements of rehabilitation facilities; and a third was in progress on the adequacy of lighting in patients' rooms.

Research completed shows that persons with comprehensive hospital and medical care insurance use hospitals less than persons whose policies cover only hospital care. This indicates that community planning of health facilities must take into account the kind of prepaid care as well as the amount of hospitalization insurance of those who may be served. Another study shows the need for a new pattern for organizing a community program for the care of the aged: facilities for those in good health and for those needing medical care should be located in close proximity and should be under the same administrative management.

A study of the advisability of physicians locating their private offices in hospitals showed that this practice results in efficient use of time and good use of the hospital's scientific facilities.

SCOPE OF OPERATIONS

Since the first appropriation in 1948, the amount of grant funds available annually for construction of hospital and medical facilities has varied from $65 million to $185 million. The 12-year (1948–59) average was $104 million annually. The Federal share has averaged about one-third of the cost of Hill-Burton projects.

On June 30, 1959, there were 1,458 projects in the construction or preliminary planning stages. These will provide 63,230 beds for inpatient care and 432 health units for outpatient care. Health units

include public health centers, State health laboratories, diagnostic and treatment centers, and rehabilitation facilities. The estimated total cost of these projects now underway was $1.485 billion. This level of activity was higher than in any previous year. The national volume of all new construction started for health facilities was rising and in terms of current dollars had exceeded the postwar peak attained in 1951. Recent increases in construction costs, however, offset this high volume considerably in net capacity produced. The volume of all work placed in fiscal 1959 was $1.021 billion, an increase of 11 percent over 1958. The volume of federally aided work placed in fiscal 1959 was $416 million, as compared with $320 million in 1958.

From the beginning of the Hill-Burton program through June 30, 1959, 4,625 projects had been approved for Federal assistance. Of these, 3,167 projects, providing 135,080 beds, had been completed and were in operation; 1,206 projects, which will add 52,337 beds, were under construction. The remaining 252 projects were in the preconstruction stage; these will provide 10,893 beds. A grand total of 198,310 hospital beds and 1,245 health units for outpatient care will be available as a result of these projects.

The Hospital and Medical Facilities Survey and Construction Act was amended to authorize a State to transfer to another State a portion of its allotment for construction of hospitals and public health centers.

Dental Resources

The number of dentists who were graduated from dental schools in 1958 fell below the number required simply to maintain the Nation's already inadequate supply. The fact that too few dentists are being trained, coupled with increases in numbers of persons seeking dental care and in amounts of care they want, emphasizes the need for orderly expansion of educational facilities, better use of skills, and greater understanding of demands for service.

To provide facts needed for the realization of these goals, the Division of Dental Resources conducted studies in 1959 on manpower supply and requirements, educational methods, and the growth and effects upon demand of various dental payment plans. It continued field tests of an epidemiological measurement for malocclusion.

MANPOWER STUDIES AID SCHOOL PLANNING

The New England Board of Higher Education recommended that both Massachusetts and Connecticut begin plans for new dental schools, and that a third new school in New England be considered; it recommended further that two existing schools in Massachusetts

be expanded. These recommendations were based on a Division study of manpower trends in New England. The Board's report, published in October 1958, shows that New England's dentist supply, previously adequate, is beginning to decline.

A similar study prepared for the University of Illinois revealed that the Great Lakes region has a greater immediate need for dentists than any other region in the United States and that the deficits in Ohio and Michigan are among the largest in the Nation. As a result of these findings, the University of Illinois plans additional dental school facilities, and other States are analyzing their requirements.

The Division had under way a similar study in the Midwest and made plans for one in the Middle Atlantic States. These will complete the series of regional studies which are to be used as the basis for analyzing long-term national trends.

One way of extending dentists' services is by employing auxiliary personnel. Continuing a 4-year program begun in 1957, the Division cooperated with six dental schools in training undergraduate students to work effectively with chairside assistants. Results already show increases in the amount and quality of dental work by the students. Better methods of providing this training are being developed. Findings may also serve as guides to changes in curriculum content and timing of courses, as well as in establishment of standard training courses for chairside assistants.

NEW APPROACHES TO THE PURCHASE OF DENTAL CARE

One reason for expecting marked increases in dental demand is the steady growth of various types of dental payment plans. By making services available at a planned expense, or by providing care through special facilities, these programs reduce a great barrier to the demand for care—the cost.

The Division conducted a series of studies during the year designed to fill a demand for information on the administrative structure of payment programs and on the extent and type of service utilization by beneficiaries. Budget payment plans, through which patients may borrow money at moderate interest rates to finance care, are covered in two reports: (1) an analysis of utilization of the Nevada State Dental Society's plan, by age, sex, and income groups, which was published; and (2) a similar study of a West Virginia plan, not completed by the end of the fiscal year. Work was continued on a report of a dental service corporation's initial experience in operating a dental program for public assistance beneficiaries in Washington State. A glossary of terms for use by groups interested in developing dental payment programs was completed.

Three studies of the types and amounts of care given by group clinics to different population groups were in process. One analyzes the dental services provided by outpatient clinics in Washington, D.C., to Public Health Service and Coast Guard beneficiaries. Another offers similar information on families who paid annual premiums to enroll in a communitywide dental plan offered by a private clinic in California. A third covers the dental program of Group Health Association, Inc., of Washington, D.C.

TECHNICAL RESEARCH

Field tests of an epidemiological measure for malocclusion developed by the Division were expanded to include examinations of adults and elementary school children. Dentists on the Division staff also played a major part in developing and standardizing a dental examination form for use in the National Health Survey.

Nursing Resources

The Division of Nursing Resources was established in 1949 to attempt solution of the national problem of nursing shortages. State surveys conducted between 1949 and 1952 showed that inadequate nursing services were due as much to misuse of nursing skills as to scarcity of nurses.

The Division therefore developed the nursing activity study, a method by which hospitals could find out for themselves how their nurses actually distribute their time, and how they may save professional nurse time by delegating messenger or clerical duties to nonprofessional staff. "Design for Statewide Nursing Surveys" and "How to Study Nursing Activities in a Patient Unit," two Division publications, describe methods for surveys and activity studies.

Since 1954, this Division has conducted basic research to arrive at new knowledge about nursing practice and patient needs. In 1955, with the establishment of the Research Grants and Fellowships Branch, the Division's scope broadened to include support of research outside the Public Health Service. A year later, there was further expansion to include the Professional Nurse Traineeship Program. This program supports advanced education to qualify graduate nurses for teaching, supervision, and administration.

APPLIED RESEARCH

Hospitals are becoming increasingly aware of the benefits to be derived from nursing activity studies. A hospital in Tennessee reports these gains: head nurse time with the patient has been doubled; nursing aide time (nonprofessional) with the patient has gone down 46 percent. The yearly saving on nursing services—in one shift of a single unit—has been considerably over $1,000.

In previous years the Division has conducted statewide surveys of nursing resources. Now that survey techniques have been developed, the Division is changing its policy in regard to specific technical assistance. Nurse consultants will travel to the field to advise States on the kinds of activities which surveys require and to help State leaders focus on the kinds of questions which a State wants answered. The Division plans also to provide direction to States for the writing of survey reports. The great demand for consultation will require an increased number of nurse consultants in the field.

This year the States of Connecticut and Texas completed their nursing surveys. Surveys in Kansas and Massachusetts got under way.

Each of this year's completed surveys tells a different story. Connecticut is short of nurses, although it has 431 nurses per 100,000 population. The problem in this State is not of supply but of distribution. In Texas, the present ratio of nurses to population is only 128 per 100,000. The projected increase in the State's aging population may be expected to further aggravate an already precarious nursing shortage. The problem in Texas is not primarily one of distribution, but rather of recruitment.

The overall national goal is to have approximately 300 nurses per 100,000 by 1970; the 1958 ratio was 268 per 100,000.

BASIC RESEARCH

An intramural research project entitled "Study of Student Perception of Patient Attitudes," inquired into the ability of student nurses to detect their patients' feelings about certain aspects of nursing care. Some 400 students in seven schools of nursing participated. The findings show that freshmen and seniors alike had difficulty in estimating the degree of importance which various aspects of hospital care had in the eyes of patients. In cases where students' responses disagreed with those of patients, the students had overestimated the importance of social environment and underestimated the importance to the patients of information, assurance, and items of physical care. This study is expected to have special interest for teachers and supervisors in planning for the learning experiences of student nurses.

A study was undertaken in cooperation with Bellevue Hospital to find out whether premature infants who were given an artificial back support fashioned of a rolled diaper made more rapid progress that those who were not given this extra nursing attention. Findings show that the diaper roll did not affect weight gain. An important byproduct of this research is a 61-point checklist for the objective recording of feeding behavior.

Out of the research on premature infants grew a study, also conducted at Bellevue, on the response of infants to unheated formula.

The Cold Formula Study provides reason to reconsider traditional practices in infant feeding. Over a period of 13 weeks, a group of 20 babies was fed cold formula; another group of 20 was fed heated formula. The cold formula group accepted the unheated nourishment readily and there were no visible differences in the progress or behavior of the two groups.

Twenty-six nurses have been interviewed to find out what prevents them from enjoying or getting satisfaction from the time they spend with patients. Analysis of the data may provide clues to nurse dissatisfaction.

"A Study of Supervisors: Personality, Perception and Behavior," begun this year, seeks to determine what characteristics supervisors have in common, and whether supervisors, as a group, are able to give sufficient time to duties they consider important. It is hoped that the data may lead to a more precise understanding of the supervisory function and to ways of increasing work satisfaction.

Nurses have traditionally classified patients by medical diagnosis rather than by individual patient care needs. As yet in the developmental stage is the "Comprehensive Nursing Care Study," which proposes to provide nurses with a guide for classifying patients according to their nursing care needs. Such a guide would facilitate assignment of nurses on the basis of abilities and experience.

SUPPORT OF EXTRAMURAL RESEARCH

The Research Grants and Fellowships Branch, in cooperation with the Division of General Medical Sciences, National Institutes of Health, supports grants for research in nursing outside of the Service and also supports fellowships for training in nursing research.

During the year there were 37 grants for nursing research: 13 on nursing care, 6 on administration of nursing services, 7 on nursing as an occupation, 9 on nursing education, and 2 for the stimulation of nursing research. Awards were made for 16 full-time and 36 part-time fellowships for research training in nursing.

The Research Grants Branch has been able to meet only about one-fourth of the demands from the field for consultation on the kinds of nursing studies that need to be undertaken, for assistance with the formulation of nursing research projects, and for assessment of research facilities. The quality of applications for grants is improving. In June 1959, the Nursing Research Study Section for the first time recommended approval for as many as two-thirds of the applications under consideration.

STIMULATION OF NURSING EDUCATION

The Professional Nurse Traineeship unit has extended its program to include traineeships for nurses who already had some experience in teaching, administration or supervision, and who were within a year

of completing a nursing program leading to a baccalaureate degree. An additional 28 schools have come into the program, bringing the total number to 88. Awards were made to the schools for 1,756 traineeships for the year ending June 30, 1959. The traineeship staff made visits to 14 schools to improve their knowledge of program operations.

The Division conducted a national conference (August 1958) to evaluate the effectiveness of traineeships in preparing nurses for teaching, administrative, or supervisory positions. There were 68 conferees, representing principally education—nursing and general—medicine, nursing service, and hospital administration. The conference recommended that the traineeship program be extended for 5 years beyond the original termination date of June 30, 1959.

Medical Services for Federal Agencies

The medical care programs of the Federal prisons, the Coast Guard, the Maritime Administration, and the Bureau of Employees' Compensation were carried on by Public Health Service officers who are assigned to these agencies on a reimbursable basis.

UNITED STATES COAST GUARD, TREASURY DEPARTMENT

The health and medical services of the U.S. Coast Guard were provided by 85 Public Health Service officers—doctors, dentists, nurses, and others. Medical officers served on vessels engaged in operations of ocean weather station VICTOR in the Pacific and stations BRAVO and COCA in the Atlantic, and on other cruise ships as needed. Doctors and dentists served on the ship making the Bering Sea Patrol and the icebreaker used in operation DEEP FREEZE IV.

A dietitian was added to the staff of the Coast Guard Academy in New London, Conn., serving personnel of the school as well as cadets hospitalized in the infirmary.

After extensive study of artificial resuscitation, the Coast Guard adopted the mouth-to-mouth and mouth-to-airway methods as preferred. Recent scientific studies have shown these methods to be superior in providing rapid oxygenation of the blood. The techniques are easily learned, and were adopted at small additional cost.

MARITIME ADMINISTRATION, DEPARTMENT OF COMMERCE

Medical and dental care for the 740 cadet midshipmen and 216 faculty and staff members of the U.S. Merchant Marine Academy, Kings Point, N.Y., was provided by Public Health Service officers assigned to the Maritime Administration.

There were 749 admissions to the Academy's Patten Hospital, 28,273 outpatient treatments and services, including examinations and inoculations of cadets going on sea cruises, and 3,957 dental visits.

Research was begun into the incidence of dental caries among cadets entering the academy and progression of these conditions in the ensuing four years.

The Medical Officer in Charge of the U.S. Public Health Service Hospital on Staten Island continued to act in an advisory capacity to the academy in connection with the health program. The chief dietitian at Staten Island reviewed the academy's dietary service.

At Washington headquarters, the Public Health Service physician serving as Chief Medical Officer of the Maritime Administration gave professional counsel to the insurance department and the Office of Seamen's Services in preparing clinical abstracts.

BUREAU OF PRISONS, DEPARTMENT OF JUSTICE

The Public Health Service provides medical, psychiatric, psychological, dental, nursing, and related health services for the 22,000 Federal prisoners, in 31 institutions throughout the country.

During the past year, the extensive prison medical care program required the services of 244 full-time employees, including 54 physicians, as well as 212 consultants in the various medical specialties. In addition, approximately 900 inmates were assigned to the medical services of the various prison hospitals, where they received training and assisted with the hospital care program.

During the past fiscal year the medical staffs performed 735 major operations and 5,080 minor operations. A total of 827,664 treatments were given in the Outpatient Departments.

One of the most important developments during the year has been the increasing tendency of the courts to refer more cases to the medical staff for psychiatric study before final sentence is passed. Provisions for such referrals are provided by law.

A comprehensive study of 450 patients examined at the Medical Center for Federal Prisoners, Springfield, Mo., in connection with "mental competency" proceedings was completed during the year. Significant psychopathology was found in a large percentage of the cases, with more than 40 percent diagnosed as actively psychotic. The results of the study have proved to be of great value to the courts in sentencing prisoners.

In the institutions for young prisoners, age 18 to 25, the chronic shortage of psychiatrists and psychologists is being met with appreciable success through the education of custodial staff in the simpler techniques of managing persons with difficult mental and emotional aberrations. It appears that the program may be of great value in the rehabilitation of young offenders.

Medical research in the Federal prisons during the year included such projects as studies of the hallucinogenic drug, D-Lysergic Acid, by the Emory University hospital staff in Atlanta, Ga.; development

of a more potent vaccine for whooping cough undertaken by the Communicable Disease Center of the Public Health Service, also at Atlanta; a study of the chemistry of the normal knee-joint fluid by the Rackham Arthritis Institute; studies at Danbury, Conn., and Terre Haute, Ind., by Pfizer Laboratories to improve the efficacy of influenza and polio vaccines.

BUREAU OF EMPLOYEES' COMPENSATION, DEPARTMENT OF LABOR

Medical officers of the Public Health Service assigned to the Bureau of Employees' Compensation administer the medical care program for beneficiaries of the Federal Employees' Compensation Act. Medical care, including direct treatment and vocational rehabilitation services, is provided by facilities of the Public Health Service, by other Federal hospitals, and by designated physicians. Medical officers also provide technical advice to the Director of the Bureau in the adjudication of cases. They assist in the program of vocational rehabilitation and in the Bureau's staff training activities.

During fiscal year 1959 there was an increase of approximately 4 percent in the total number of work injuries reported to the Bureau. The number of fatal cases decreased approximately 15 percent because of legislation which removed members of the reserve force of the uniformed military service from Federal Employees' Compensation Act benefits as of January 1, 1957.

Medical officers of the Public Health Service assumed an increasingly prominent role in staff training activities of the Bureau of Employees' Compensation. One of the outstanding activities was the arrangement by the Medical Director for a series of six discussions on disability evaluation. The discussions were presented by specialists in the Public Health Service and private practice on diseases frequently encountered in compensation work.

Bureau of State Services

The Bureau of State Services is the unit of the Public Health Service which has primary responsibility for working with the States in disease control and the improvement of public health programs. It provides assistance to the States through consultative services, training, the conduct of demonstrations and pilot programs, and financial aid. The Bureau also conducts specialized research and field studies in programs related to public health services.

General Health Services

The programs administered by the Division of General Health Services are: the Arctic Health Research Center, the National Office of

Vital Statistics, program development, public health education, State grants, and professional training and traineeships.

STATE GRANTS

For fiscal year 1959, a total of $267,475,000 was available for grants-in-aid to States and Territories to conduct public health programs and to build hospitals and other health facilities. This total reflects an increase over the preceding year of $65 million for hospital and medical facilities construction and an increase of $700,000 for venereal disease special projects. Funds for tuberculosis control, however, were decreased by $500,000. The amounts of actual payment and the purposes for which they were made are as follows:

General health services	$14,924,302.00
Venereal disease special projects	[1] 2,389,659.92
Tuberculosis control	3,994,970.00
Mental health activities	3,986,362.00
Cancer control	2,171,242.00
Heart disease control	2,075,219.00
Construction of community facilities in defense impact areas	25,000.00
Hospital and medical facilities construction	135,133,829.78
Waste treatment works construction	36,429,071.08
Water pollution control	[2] 2,847,867.00

[1] Includes $575,444.27 in supplies and services furnished in lieu of cash.
[2] Includes $256,876.00 paid to interstate agencies.

Other funds used to help strengthen State and local health programs were: $1,972,848.13 for traineeships for professional public health workers; $199,936.79 for training and demonstration projects in air pollution control; and $442,300 for grants to schools of public health for the provision of public health training.

Additionally, Alaska was paid $638,000 in grant funds for disease and sanitation investigation and control activities and $1 million for its mental health program. Upon Alaska's formal admission to statehood in January 1959, an arrangement of annual transitional grants was made to facilitate an orderly assumption of certain responsibilities previously performed by the Federal Government.

The Territory of Guam received grants-in-aid for the second year for public health programs and obligated $97,333 of Federal grant funds for hospital construction.

ARCTIC HEALTH RESEARCH CENTER

The Arctic Health Research Center in Anchorage, Alaska, investigates problems associated with life in low temperature areas and cooperates with the Alaska Department of Health and other agencies concerned with the improvement of Alaska's public health and medical services.

The Center's research projects span a wide range of arctic and sub-

arctic health problems, including: a study of human burcellosis among Alaska Natives which indicates that reindeer and caribou may be potential reservoirs of this disease; a pilot study of corneal scarring; and various studies dealing with the ecology of enteric viruses, ambulatory chemotherapy for tuberculosis patients, physiological adaption to cold, and sero-immunology of Asian influenza in Alaska Natives.

Sanitation studies continue to be productive in improving water supply systems, waste disposal systems, and experimental housing and in adapting ideas and materials to meet the singular environmental conditions of Alaska.

NATIONAL OFFICE OF VITAL STATISTICS

The two-volume publication, *Vital Statistics of the United States, 1957*, and 17 *National Summary* reports of 1957 data were issued. Current data were regularly published in the *Weekly Morbidity and Mortality Report* and the *Monthly Vital Statistics Report.* In the *Selected Studies* series, reports were issued on birthweight and the survival of newborn infants; child-spacing; birth rate trends; and death rates from selected causes. Also completed were: a release of current data on illegitimacy and a projection of illegitimate births to the year 1970; a classification and listing of institutions in which births and deaths occur; and, in cooperation with Canada, England, and Wales, a study of the comparability of cause-of-death classification.

The following sampling survey studies were conducted in cooperation with the specified agencies: lung cancer (National Cancer Institute); bone sarcoma (Atomic Energy Commission); cystic fibrosis (Children's Bureau); and poliomyelitis vaccination (Communicable Disease Center).

The Marriage Registration Area, inaugurated by the National Office of Vital Statistics 2 years ago, now includes 36 States, with the admission of Kentucky during the year. Two States, Maryland and Kansas, were admitted to the Divorce Registration Area, started in January 1958 by NOVS; the total now includes 19 States.

Comprehensive surveys of registration and statistical programs were conducted in four States, and cause-of-death coding training was given in three States. Through an Interagency Committee, the NOVS cooperated with other Federal agencies and the States in developing procedures for registering births occurring outside the civil jurisdiction of the United States.

PROGRAM DEVELOPMENT

The Program Development Branch of the Division of General Health Services helps to stimulate research in public health practice

by State and local health departments, voluntary health agencies, and schools of public health. It is also the focal point within the Service for work on school health, rural health, and the health of agricultural migrant workers.

TRAINING

In 1959, the third year of the traineeship program under Title I of the Health Amendments Act, 654 persons received advanced training in public health—bringing the total for the 3-year period to 1,682. A National Conference on Public Health Training, called by the Surgeon General in July 1958 to evaluate the program and make recommendations to the Congress, endorsed the extension of the traineeship program to increase the supply of trained professional workers.

PUBLIC HEALTH EDUCATION

Through consultation, research, and training, the Public Health Education Branch assisted States and local health departments, units of the Public Health Service, educational institutions, and other organizations in developing health education programs designed to encourage desirable health habits. Consultants in health education are now stationed in 6 of the 8 regional offices of the Department.

The Branch also conducted or assisted in a number of behavioral science studies. During the year six studies were completed on a cooperative study of the effects of the Asian influenza epidemic on community life in five cities. Another study considered why people fail to seek vaccination for poliomyelitis. Current research includes studies on: (1) construction of a psychological instrument to measure people's health concerns; (2) factors affecting decisions to accept or reject free testing for cervical cancer; and (3) why people use or fail to use available free dental services.

Public Health Nursing

The Division of Public Health Nursing was established in August 1958, replacing the Public Health Nursing Branch of the Division of General Health Services.

Promotion of public health nursing services with special emphasis on expansion into the newer programs, such as chronic disease, was carried on through field consultation, teaching, and committee work.

Information on the distribution of visiting nurse associations in cities of 25,000 population and over was obtained as a basis for planning, with State and local health departments, for expansion of services to include nursing care of the sick.

A study to identify methods of documenting the results of public health nursing service to patients was initiated in one health depart-

ment in February 1959. Criteria were developed for evaluating nursing services in maternal and child health, and tuberculosis control programs; other programs will be included during 1960.

The Division also plays a major role in career development of public health nurses. It assisted in the assignment of 21 nurses, 6 of whom were new recruits.

Special Health Services

The Division of Special Health Services is the unit of the Service which works with State health agencies and other groups in developing programs related to personal health maintenance. The Division administers special programs in accident prevention, medical aspects of air pollution, occupational health, and control of cancer, heart disease, tuberculosis, and other chronic diseases.

CANCER CONTROL

The Cancer Control Program, created in the Division of Special Health Services a year ago, completed its organizational and staffing pattern during the year. Working with public health authorities and private physicians, the Cancer Control Program staff explored the potentialities for cancer control activities throughout the country. Formal conferences in six regional areas of the Department were attended by 217 physicians in private practice, public health, and voluntary agencies. Minimum standards were also developed for community services in cancer control work.

During the year, the Washington Cytology Unit—a demonstration and training unit in screening for cervical cancer—was transferred from the National Cancer Institute to the Cancer Control Program. In addition to screening Federal beneficiaries, the Program studied methods of increasing the number of medical technologists in this field and of improving laboratory techniques in the processing of slides.

HEART DISEASE CONTROL

The Heart Disease Control Program during 1959 contributed to the advances being made throughout the country against cardiovascular disease by: (1) helping apply current knowledge concerning heart disease, and (2) conducting community studies designed to learn more about the epidemiology and control of cardiovascular disease.

Responding to mounting requests from States for professional assistance in this field, the Program assigned 23 medical and nurse officers to 21 State and local health departments to stimulate and extend work in heart disease control.

Primary prevention of rheumatic fever—one of the most serious

and crippling diseases of childhood—may be a step closer through use of the fluorescent antibody technique in diagnosis. Validation tests of the new method, first step in the application of this research finding, were initiated by the Program in Colorado, North Dakota, and Montgomery County, Md.

To combat stroke, one of the major cardiovascular diseases of the older years, the Program promoted new and expanded stroke rehabilitation activities in various parts of the country, including demonstrations, clinics, outpatient and home care measures.

In an attempt to learn more about the contributing factors and causes of cardiovascular disease, States are conducting epidemiological studies with Program support. Cardiac-in-industry surveys, mobile cardiac diagnostic clinics for children, new case-finding techniques, and continued expansion of community studies in atherosclerosis are other examples of heart program activities.

CHRONIC DISEASE CONTROL

The number of State and Territorial health departments with active public health programs to prevent the occurrence of the disabling effects of chronic disease reached a new high during fiscal year 1959. Thirty-six health departments now have organized units responsible for diabetes casefinding and glaucoma detection, as well as community services and nursing care programs for the chronically ill and aging. Five years ago there were only 27 such units in the Nation.

Early detection of diabetes and glaucoma through individual and multiple screening methods which are now feasible continues to be emphasized by the Chronic Disease Program. A small, hand-operated diabetes blood-testing device was developed which enables small health departments to carry out a diabetes detection program.

Strike Back At Stroke, a booklet produced by the Chronic Disease Program as a guide to physicians in prescribing effective restorative treatment for stroke patients, received national acceptance. A number of programs are now under way to promote early mobilization of stroke patients, and medical schools are using the booklet for student instruction.

The first program undertaken by Federal, State, and local official and nonofficial agencies to bring needed restorative services to residents of rural communities was started in North Carolina.

Dental care for homebound chronically ill and disabled people was started by a New York City hospital as part of the Public Health Service's evaluation of a portable dental equipment kit enabling a dentist to give complete treatment at the bedside.

TUBERCULOSIS CONTROL

In fiscal year 1959, $4 million was appropriated by Congress for tuberculosis grants to the States. In addition, the Tuberculosis Pro-

gram, by collecting, analyzing, and disseminating a wide variety of information, by assigning personnel to trouble spots, and by offering specialized consultation, aided the States in putting their resources against tuberculosis to good use.

Today tuberculosis patients spend less time in the hospital than they used to. Current recommendations are usually for six to eight months of hospitalization followed by several years of drug therapy; some patients receive all their treatment outside the hospital. The health department, therefore, now carries a major share of the responsibilities for the medical care of tuberculosis patients. Many health agencies, however, do not have adequate resources to provide the new services required. The provision of medical care for patients outside the hospital is the most pressing current problem in tuberculosis control, and much of the Tuberculosis Program's staff time is spent in helping State and local health agencies to improve their services to these patients.

Another difficulty in the changing situation is casefinding. As the number of people with tuberculosis declines, unknown cases are increasingly difficult to locate, and health departments must carefully select not only the populations to be screened but the screening techniques themselves. The Tuberculosis Program aided health departments in establishing priorities for their casefinding activities and in training nurses in tuberculin testing techniques. The program is also actively promoting the use of dual reading of screening films to increase yield and reduce radiation.

Casefinding has been further complicated by the discovery of the so-called "atypical" mycobacteria which cause cross reactions to tuberculin. The Program played a major role in investigating these organisms and in conducting research on their epidemiology. Other operational research conducted by the Program is concerned with the evaluation of various drug regimens in tuberculosis therapy and with the evaluation of the prophylactic effects of isoniazid.

OCCUPATIONAL HEALTH

To help safeguard the health of American workers, the Occupational Health Program carries out field studies, laboratory research, technical assistance, and training.

A major study in the Federal Prison Industries seeks to develop standards for the control of noise. Recent findings show that workers with less than 6 months' noise exposure almost completely recovered their hearing acuity, following temporary removal from the noise. Recovery was less complete in workers having over one year of noise exposure.

The medical phase of the continuing, joint Public Health Service-U.S. Bureau of Mines study in metal mines completed its first year,

with examinations of 3,000 workers in 8 Western mines. Preliminary findings reveal a surprising occurrence of pneumonoconiosis in men with relatively short periods of exposure to silica dust, despite the general availability of control measures. The study will yield valuable clues as to why silicosis persists as the leading occupational disease, in terms of disability and compensation cost.

A long-term study points to a possible occupational factor in deaths of uranium miners. Of approximately 80 deaths, 6 were caused by lung cancer.

To assist in the detection of occupational diseases, work is under way to develop more rapid and efficient analytic procedures. As the result of a need demonstrated by a study of the phosphate industry, a rapid, simple procedure was developed for the separation of fluoride from fresh urine samples by an ion exchange method. The new procedure will permit a tenfold increase in the number of analyses performed within a unit of time. It can be readily performed in an industrial plant laboratory.

Emergency and special consultative services included studies ranging from toxic and allergenic properties of Haitian voodoo dolls to outbreaks of illness among dock workers handling castor bean pomace used in fertilizer. To help meet personnel training needs of public health agencies, 18 training courses and 6 technical seminars were presented, attended by 665 persons.

AIR POLLUTION MEDICAL PROGRAM

During the year, the Air Pollution Medical Program was reorganized to deal with the growing problems arising from air pollution. New sections were created to conduct laboratory investigations and community studies in this field.

Laboratory studies are under way on the biochemical effects of air pollution, the physiological effects of air pollution upon animals, and the effects of long-term exposures of plants, animals, and human beings to irradiated auto exhaust components. Community studies include the physiological effects of air pollution upon man, the possible causation or aggravation of chronic disease, and the possible relationship between air pollution and other environmental influences.

The National Conference on Air Pollution, conducted in cooperation with the Air Pollution Engineering Program in November, 1958, was attended by more than 1,000 representatives of industry, State and local governmental agencies, universities and research organizations. In addition to focusing public attention on air pollution problems, the Conference adopted resolutions which outline necessary research and control objectives for the immediate future. Increased emphasis on automobile exhaust studies and improved application of presently known control methods were among the Conference recommendations.

ACCIDENT PREVENTION

During the year, the Accident Prevention Program continued to develop plans and techniques designed to help State and local health agencies reduce accidental injuries and deaths. Emphasis was given to traffic safety and the prevention of home accidents. The Program also conducted epidemiological studies of accidental fires and explosions and of accidents among children and older persons.

The number of local poison control centers continued to grow. There are now 289 such centers throughout the country, compared to 158 a year ago. These centers help control accidental poisoning by providing, primarily to physicians, a quick source of up-to-date information on the ingredients, toxicity, and recommended treatment of poisoning by potentially hazardous products. Through the National Clearinghouse for Poison Control Centers, maintained by the Public Health Service to coordinate this effort, information about new poisons encountered by any of the local centers is made available to all other centers.

There was widespread concern during the year about the increase in alleged accidental suffocations among children caused by plastic garment bags. Since January 1, 1959, 49 such incidents were reported to the Accident Prevention Program. Investigation revealed that most of the deaths were associated with the use of the plastic bags as bedding for small infants. A few suffocations were also caused by use of the bags as toys and playthings. An intensive educational campaign directed toward parents was launched by the plastic bag and dry cleaning industries, in cooperation with the Public Health Service and professional organizations, to prevent these needless fatalities.

A study by Cornell University has shown that the use of seat belts in automobiles substantially reduces the risk of accidental death and the severity of injury from crashes. During the year, the Accident Prevention Program launched, in cooperation with the National Safety Council and the American Medical Association, a national campaign to encourage widespread use of automobile seat belts.

Radiological Health

The Division of Radiological Health, now in its second year of operation, grew in response to the increasing importance of radiation as a public health problem. In fiscal year 1959, the Division operated on a budget of $634,000 compared to $393,000 a year ago. There was a corresponding expansion in program activities.

The Division helps State and local health departments to start and maintain radiological health programs and develops public health

measures to reduce exposure from radiation-producing devices in medicine, industry, and other sources. It conducts research, including the accumulating epidemiological data on long-term effects of radiation on human beings. In addition, the Division monitors weapons testing; maintains surveillance of radiation levels in air, water, milk; and conducts training for health personnel in various aspects of radiological health.

In April 1959, the Surgeon General called a radiological health conference to review current developments in radiological health with the State and Territorial Health Officers, representatives of the Food and Drug Administration, the Children's Bureau, the Atomic Energy Commission, and members of the National Advisory Committee on Radiation. Discussions centered on emerging problems and trends in this field. The group considered Federal-State relationships in radiological health, medical X-ray protection, radiological training and research, standards relating to environmental contamination with radioactive materials, and legislative and regulatory aspects of radiological health. Finally, there was an evaluation of the needs of the States in developing and implementing radiological health programs.

During the year, the Division completed an inventory of the radiological health programs in 32 States. At the request of the Florida State Health Department, a team of PHS scientists assisted in setting up a project to survey diagnostic medical X-ray sources in Dade County, Fla. It was hoped that this project would also serve as a demonstration of the techniques of measuring radiation that may be applicable to other areas in the United States.

Under an agreement with Joint Task Force 7 and the Atomic Energy Commission, the Service continued to carry out its radiological off-site monitoring activities during weapons testing (Operation HARDTACK, Phase I and II) at the Pacific Proving Grounds and at the AEC Nevada Test Site, respectively.

Cooperation in radiological health and safety activities was continued with the Maritime Administration on its nuclear powered merchant ship program and with the Navy on its Nuclear Propulsion Program. In each case, a Public Health Service team is assigned to the agency to assist in developing radiological safety practices.

The Public Health Service, in cooperation with the Atomic Energy Commission, initiated a joint study of radiological protection and surveillance programs appropriate to the various types of reactors under development at the National Reactor Test Site (NRTS) at Idaho Falls, Idaho.

The Service initiated a study of biological samples collected in the vicinity of the Nevada Test Site to determine body burdens of radioactivity and to obtain related radio-epidemiological data. Radio-

chemical analyses of samples are made by the radiological health research staff at the Robert A. Taft Sanitary Engineering Center.

During fiscal year 1959, 15 training courses in radiological health were presented at the Sanitary Engineering Center. About 450 people attended these courses, including representatives of State and local health departments, industry, and Federal agencies.

Engineering Services

The Division of Engineering Services works with State and local health departments, industry, and other groups on health problems associated with the modern environment. Division programs include the engineering aspects of air pollution, milk and food sanitation, the sanitation of interstate carriers, and advanced professional training in sanitary engineering.

ROBERT A. TAFT SANITARY ENGINEERING CENTER

The Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio, is the Nation's primary facility for research, technical assistance, and training in the following fields: air pollution, water supply and pollution, milk and food sanitation, and radiological health. Research is conducted through the staff operations at the Center. The training program offers a wide variety of resident and field training courses for scientific and administrative personnel engaged in sanitary engineering work.

ENGINEERING RESOURCES

The Division works to increase the supply, improve the utilization and develop the professional status of sanitary engineers and related personnel. This is done through inservice training, traineeships, research fellowships and research grants, and through close liaison with universities and professional and technical organizations. In cooperation with the National Science Foundation and the Conference of State Sanitary Engineers, work continued on a roster of sanitary engineering manpower in the United States.

GENERAL ENGINEERING

Special citations were awarded to 19 vessel companies and 8 railroads for meeting Public Health Service criteria on all operating units. Increased attention was given to sanitation problems created by the introduction of jet aircraft on commercial airlines. Major modification and expansion of servicing facilities are involved. Some 162 of 168 aircraft constructed were given Certificates of Sanitary Construction. Vessel construction continued at a high level, with 41 of 55 new or reconstructed vessels qualifying for such certificates.

Surveillance was maintained on interstate railroads and buses.

One major outbreak of food poisoning aboard a carrier was investigated.

The Division worked with the American Public Works Association in the preparation of a textbook on *Refuse Collection Practice.* Also under preparation is a companion text on disposal practice.

During the year, the Division compiled material for a manual designed to evaluate environmental health problems in urban and metropolitan areas. Cooperative projects were begun with several national organizations interested in metropolitan area planning.

MILK AND FOOD SANITATION

A recommended sanitation ordinance and code which establishes standards for Grade A dry milk used in the commercial preparation of fluid milk products was issued.

The Public Health Service makes monthly analyses of milk samples from 12 milksheds of the Nation for the presence of radioactivity. The yearly averages for radioisotopes in the samples collected remained below the permissible concentrations published by the National Committee on Radiation Protection and Measurement.

Participation in the Cooperative State-PHS Program for Certification of Interstate Milk Shippers continued to increase for the ninth consecutive year.

Studies were initiated at SEC to determine ecological factors in the prevention of foodborne disease.

Model ordinance provisions on inspection of poultry were distributed to the States, and a related manual was published jointly with the Food and Drug Administration.

The Service continued to participate with the States, the shellfish industry, and the Government of Canada in the voluntary program for the certification of interstate shippers of fresh or frozen oysters, clams and mussels. The Public Health Service Shellfish Sanitation Laboratory was moved from Florida to the State of Washington where a long-range study of the bacteriological properties of West Coast shellfish will be undertaken in cooperation with the Washington State Department of Health.

AIR POLLUTION ENGINEERING PROGRAM

Established after the National Conference on Air Pollution, at the request of the Secretary of Health, Education, and Welfare, an ad hoc Committee on National Goals for Air Pollution Research is currently completing a report which will recommend desirable levels of support for air pollution research by government, industry, universities and other groups.

Major emphasis in research centered on the auto exhaust problem. A joint Engineering-Medical auto exhaust study unit, established at

the Sanitary Engineering Center, will permit more precise research in this area than has heretofore been possible.

Significant projects completed included improvements in instruments for air pollution sampling and analysis, including the development of a portable particle counter and size analyzer for field use. Full-scale field operations were carried out during a detailed study of community air pollution in Nashville, Tennessee.

Progress has been realized on work concerning chemical and physical methods for air pollution analysis. Multiple gas samplers, developed by the Program to fill an important gap in knowledge of air pollution, have been put into limited field use for evaluation.

A new time-saving method has been developed for the analysis of polycyclic hydrocarbons which will greatly facilitate study of the carcinogenicity of air pollutants.

In cooperation with the National Cancer Institute and the University of Southern California Medical School, a special air sampling program for carcinogens was continued.

Water Supply and Pollution Control

A separate Division of Water Supply and Pollution Control was created on April 1, 1959, reflecting intensified efforts in these environmental health fields.

An agreement between the Department of the Army and the Department of Health, Education, and Welfare calls for assistance to the Army Engineers in determining supply, demand and economic value of municipal and industrial water supplies from reservoirs authorized by the Water Supply Act of 1958. A joint public-government Advisory Committee was appointed to revise the United States Public Health Service Drinking Water Standards, with special attention to setting limits for radionuclides and synthetic organics and other chemicals.

Studies were begun to determine pollution effects of large-scale use of agricultural insecticides in the Southeastern States. In the Southwest, field operations were readied to pinpoint and block off or divert sources of manmade and natural salt pollution of the Arkansas and Red Rivers to make the flow of the rivers available for domestic and industrial uses. Other major areas of attention included the Lake Michigan diversion problem, the international outfall sewer on the California-Mexico Border, and ground-water pollution near the Rocky Mountain Arsenal near Denver.

A 52-station Water Quality Network was established, resulting in the first long-range, continuous study of pollution of the major interstate waters of the Nation, including radioactive pollution. Regular

announcements of radiation levels of the waters were issued. Research at the Sanitary Engineering Center and other field investigations were concentrated on problems created by manufacture of hundreds of new chemicals and synthetic products.

As of June 30, 1959, Federal grants under Public Law 660 in the amount of $131.6 million had been made to 1,583 communities in support of sewage treatment works construction totaling $685 million. There were 545 construction grants made in fiscal year 1959, totaling $46 million, as compared with 592 in 1958 totaling $47 million, and 446 in 1957 totaling $38 million. This 3-year total of 1,583 projects will provide adequate treatment for municipal wastes equivalent to a population of approximately 25 million, and reduce municipal pollution in an estimated 19,000 miles of streams. Of the 1,583 grants made, 97 percent was for communities of less than 125,000 population. Increasing impetus was given during the year to enforcement procedures under the water pollution control law. These involve, (1) round-table conferences to map out problem areas and remedial measures; (2) a formal cease-and-desist hearing should the round-table method fail; and (3) possible court action. By July 1, 1959, there had been 10 conferences and two hearings involving eight major waterways, 215 industrial establishments, 83 municipalities, and 1,553 miles of watercourses. Estimated cost of sewage treatment facilities to remedy pollution in areas where enforcement action has been taken exceeds a half billion dollars.

The first Federal enforcement action to control contamination of interstate waterways by radioactive wastes resulted in a voluntary action by the Vanadium Corporation of America to prevent radium from its Durango, Colo., operations from discharging into the Animas River.

Communicable Disease Center

The Communicable Disease Center, located in Atlanta, Ga., with laboratories and field stations in various parts of the United States, is the specialized national resource for the prevention and control of infectious diseases. The Center carries out extensive epidemiological, field, and laboratory studies, coordinates communicable disease activities, and provides technical assistance to the States.

Through representation on World Health Organization expert advisory panels and committees, the center participates in worldwide programs for the eradication or amelioration of many diseases. Its laboratories function as the national, regional, and sometimes the international, diagnostic center.

CDC gave epidemic aid in 44 instances, involving 22 different dis-

eases. Ten of these requests involved vector control following epidemics or disasters in 8 States.

REPRESENTATIVE FIELD AND LABORATORY STUDIES

Venereal diseases.—The upward trend in the incidence of primary and secondary syphilis in the United States accelerated, with 8,000 reported cases reflecting an increase of 20 percent over 1958. More than one-fifth of all reported cases of infectious venereal disease occurred in persons 19 years of age and younger. In general, increased incidence of venereal disease was higher in urban areas.

Federal funds of $2.5 million supported 89 venereal disease projects in 41 States, Puerto Rico, and the Virgin Islands. Other assistance included the assignment to States of 1 nurse, 15 physicians, and 274 paramedical personnel.

A fluorescent antibody method was developed at CDC for diagnosis of gonorrhea in males and possibly in females, and the plasmacrit test proved practical in screening for syphilis. Results from an evaluation program, with 15 laboratories participating, indicate that the best testing procedure for syphilis should include a good nontreponemal test supplemented by the treponemal Reiter-protein-antigen test. A standard VD epidemiologic report form developed by the Center was adopted by 35 States and the Armed Forces.

Because veneral diseases are rising, training in control activities is a vital part of the national program. More than 1,800 interviewers were trained in permanent schools, in the mobile school, and in the Mahoney Training Center for Nurses. An additional 547 persons were trained in laboratory courses in Atlanta and in field workshops.

Staphylococcal disease.—Following the first National Conference on Hospital-Acquired Staphylococcal Disease, sponsored jointly by the Public Health Service and the National Academy of Sciences and held in Atlanta in September 1958, a series of conferences were held for key health groups in each of the regions of the Department of Health, Education, and Welfare. In a number of subsequent Statewide meetings, responsible individuals and organizations were alerted to the problem and apprised of the services and information available to them. Most States have now inaugurated staphylococcal control programs. Cooperative investigations were initiated to establish and evaluate surveillance and control techniques in individual hospitals of various sizes, among groups of hospitals, and in the community.

Another national conference on the relation of the environment to hospital-acquired staphylococcal infections revealed that the role of environmental factors is poorly understood. Emphasis was placed on the immediate application of known sanitation measures and studies are being directed toward the acquisition of new knowledge and the development and perfection of improved techniques.

In the diagnostic area, CDC is serving as a National Reference Center for Staphylococcus Phage Typing.

Poliomyelitis and aseptic Meningitis.—More paralytic polio was reported in 1958 than in 1957, despite the decreasing trend in total reported cases since 1955. The greatest occurrence of disease was in the youngest group of unvaccinated children, often non-white, in the lower socioeconomic group. There was no break in vaccine safety.

At CDC, a rapid survey procedure was developed to provide data on the extent of poliomyelitis vaccination among urban populations and was adapted to local health department use. Surveys in 38 widely scattered cities showed the proportion of adequately immunized persons to be least in low socioeconomic areas and greatest among school children between the ages of 5 to 14. Many local health departments opened community campaigns to eliminate soft spots in the immunization picture.

The laboratory diagnostic program within the States was reinforced through direct support in the form of funds, reagents, training, and consultation. Contract laboratories also attempted isolation of virus from cases with aseptic meningitis so that a constant sampling of the active viruses was available to CDC from scattered areas.

Encephalitis (arthropod-borne).—CDC assisted in 3 epidemics, the largest an outbreak of Western encephalitis with 47 human and 191 equine cases. This disease was widely distributed in the West, particularly in irrigated areas. St. Louis encephalitis was prevalent in the Central States but not in the sharp localized outbreaks typical of recent years. No human cases of Eastern encephalitis were seen, and there was only 1 equine case. Principal concern in CDC's studies is to determine the ecologic factors responsible for persistence of these diseases and to devise ways for preventing or curtailing outbreaks.

Rabies.—Wildlife rabies studies were conducted in the Southeast, Southwest, and in the newly established Midwest Rabies Investigation Station at Poynette, Wis. As control programs continue to reduce the urban rabies problem in dogs, measures are being sought to reduce the large wildlife reservoir of infection in skunks, foxes, and bats.

Respiratory diseases.—CDC continued as the World Health Organization International Influenza Center for the Americas, correlating the work of its own and other participating diagnostic laboratories. In the face of widespread infections of influenza B virus in Europe and the threat of its international spread, the Center alerted all collaborating laboratories and obtained representative isolates for strain studies. Evaluation of reagents already distributed showed them suitable for the present outbreak. Most of the virus isolates submitted for study were found to be closely related either to the Asian

strain or to the B strain prevalent in Europe. Evidence of type B infections was seen in 26 States and Asian in 8.

Enteric infections.—Over 600 cases of acute diarrhea in the Phoenix, Ariz., area have been studied exhaustively. Shigella organisms were isolated from about one-fourth of the cases and enteropathogenic *Escherichia coli* from another one-fourth. Available methods failed to isolate pathogens from nearly one-half of the cases. A serologic method for identifying healthy carriers of the typhoid agent was developed and used successfully.

Plague.—CDC assisted in investigating 3 cases of human bubonic plague, 1 of which was fatal, that occurred in the West during the late spring and early summer of 1959. Wild rodent plague is endemic in 15 Western States, and the cases apparently resulted from contact with infected wild rodents or their fleas.

Schistosomiasis.—A multifactor approach to the control of schistosomiasis involving a coordinated program of water supply improvement, domestic sanitation, snail destruction, limited chemotherapy, and health education is proving effective in heavily endemic areas in Puerto Rico. A predator snail is eliminating the molluscan intermediate host of *Schistosoma mansoni* in certain areas.

VECTOR CONTROL

When dusted directly on human volunteers, the organic phosphorus insecticide malathion was found safe and effective against body lice resistant to the chlorinated hydrocarbon insecticides currently used for louse control throughout the world. In cooperative tests with the Pan-American Sanitary Bureau and the International Cooperation Administration in El Salvador, residual deposits of malathion have given excellent results against dieldrin- and DDT-resistant *Anopheles albimanus*, an important mosquito vector of malaria.

Preliminary tests indicate that the vapors from small closed bags of DDVP, the organic phosphorus insecticide developed by CDC, will kill malaria mosquitoes in ventilated huts for 1 to 2 months. This residual fumigation technique is a new, potentially revolutionary approach for eradicating malaria and other vector-borne diseases.

LABORATORY SERVICES AND NEW TECHNIQUES

Approximately 55,000 specimens were referred to the CDC laboratories by State and local health departments, Federal agencies, research groups, and foreign countries.

The Center produced and distributed, in addition to the amounts required in its own programs, some 767,000 milliliters of diagnostic reagents and 7,800 shipment-lots of tissue cultures.

Outstanding among further applications of the fluorescent antibody (FA) method were work on rabies, infantile diarrhea, streptococcal infections, and arthropod-borne viruses. The fluores-

cence-inhibition test, an advanced application previously worked out for toxoplasmosis, is under study as a serologic test for amebiasis.

TRAINING

Over 4,500 persons from State and local health departments, Federal agencies, academic institutions, industry, and numerous organizations, and an additional 165 individuals from other countries, received organized training from CDC in various aspects of communicable disease control.

Dental Public Health

The Division of Dental Public Health is concerned with the field testing and application of methods for the prevention and control of dental diseases.

It provided assistance to State and local health departments in such fields as the fluoridation of public water supplies, in-service training, recruitment of personnel, administration of dental health programs, planning and conducting field studies on topical fluoride applications, dental care for the chronically ill and aged, community dental clinics, behavioral problems associated with the prevention and treatment of dental diseases, and periodontal diseases.

Of the 118 million people in the United States using central water supplies, 35.6 million in 1,814 communities, or about one person in every three, were using water containing fluoride added by municipalities during fiscal 1959. In fiscal year 1958, 34.5 million people in 1,709 places drank fluoridated water. In addition, 1,903 communities with a population of 7 million people use naturally fluoridated water.

A study was begun in Pennsylvania to determine the effects of fluoridating school water supplies in the prevention of dental cavities. Studies in Georgia and Virginia were started to measure the effectiveness of various concentrations of stannous fluoride applied to the teeth of school children.

In Pennsylvania, a study was initiated to provide data for use in developing an apparatus to automatically feed the proper amount of fluoride into water supplies and to show continuously the fluoride concentration maintained. Another engineering study was started in Illinois to further refine the procedure for using calcium fluorspar, the cheapest of all fluoride compounds, as a fluoridating agent.

In New York, a social-psychological study was begun to explore some of the causes of the use and non-use of dental facilities.

International Health

Through the Division of International Health, the Public Health Service contributes to the advancement of world health through

participation in activities of international health organizations, by providing program and policy guidance to the Department of State on international health matters, by administering education and training services in health and medicine for U.S. Government and International agencies, and by providing technical aid to the International Cooperation Administration and its overseas missions.

During the year ending June 30, 1959 there was increased interest in the United States in international health activities, marked by introduction of a number of pieces of legislation, including a proposal for an International Health and Medical Research Year and one for establishment of a National Institute for International Health and Medical Research. This interest by the Congress and the Administration in international health activities led to a reappraisal of the role of the Public Health Service in international health and brought about the establishment of the position of Assistant to the Surgeon General for International Health. The expansion of the activities of the Division necessitated the transfer of four medical officers and two sanitary engineers from foreign or domestic assignments to the Division staff.

The emphasis on international health during the period under review was reflected in the Service's participation in the work of international organizations in health and related fields. The Surgeon General again served as Chairman of the U.S. Delegation to the World Health Assembly, and other officers served on official delegations to the governing bodies of WHO, the Pan American Health Organization, and the South Pacific Commission. Through the Division of International Health, the Service assisted the Department of State in developing United States policy on international health questions which come before these and other international organizations whose activities include health programs, such as the United Nations Children's Fund, the Food and Agriculture Organization, and the International Labor Organization.

Public Health Service personnel also served international health organizations in an advisory capacity in their technical specialties. During this reporting period, 75 Service staff members served on WHO expert panels in 36 health fields and the Service granted frequent requests for short-term assignments of its officers as technical advisers to the World Health Organization and the Pan American Health Organization. In addition, 140 Public Health Service commissioned officers were assigned to ICA for service abroad, providing technical assistance to health administrations of foreign countries.

The Division arranged and supervised training programs in the United States for 644 foreign health workers from 75 countries during the period under review. These trainees—doctors, nurses, sanitary engineers, public health administrators, among others—were trained

in United States schools of public health, nursing or engineering, or placed in in-service training at hospitals and laboratories, depending upon the objectives of their training programs.

Through this Division the Service played an active role in the exchange of public health missions between the Soviet Union and the United States. Reciprocal missions in biochemistry, endocrinology, the physiology and pharmacology of the central nervous system, and antibiotics were exchanged during the year ending June 30, 1959. During this period, the Division's International Epidemiology Program completed health studies of Libya, Brazil, Israel, Greece and Ireland, making a total of 17 epidemiological surveys completed under this program, which began in 1956.

Table 1.—*Statement of appropriations, authorizations, and obligations, fiscal year 1959*

[In thousands]

Appropriations	Funds available for obligation				Total funds available	Amounts obligated
	Appropriations and authorizations	Net transfers between appropriations	Repayments for services	Prior year unobligated balances		
Total	$755,846	$1,080	$30,482	$99,203	$894,178	$752,396
Appropriations, PHS	755,693	1,080	30,482	99,060	886,315	745,745
Control of tuberculosis	6,386	115	22		6,523	6,510
Control of venereal diseases	5,400				5,400	5,386
Assistance to States, general	23,639		338		23,977	23,846
Communicable disease activities	6,890		379		7,269	7,258
Grants and special studies, Territory of Alaska	2,165	23	27		2,215	2,213
Sanitary engineering activities	12,789	441	1,166		14,396	14,207
Foreign quarantine activities	4,348		278		4,626	4,616
Construction, mental health facilities, Territory of Alaska	6,500				6,500	
Equipment, communicable disease center	1,700				1,700	908
Hospitals and medical care	50,474		4,909		55,383	55,286
Dependents' medical care	384				384	382
Salaries and expenses, hospital construction services	1,600	35			1,635	1,626
Indian health activities	42,169		727	[1] 510	43,406	42,359
Construction of Indian health facilities (1959–60)	4,124				4,124	2,018
Construction of Indian health facilities (1958–59)				2,490	2,490	2,331
Construction of Indian health facilities (no year)	1,886			7,637	9,523	8,422
Grants for hospital construction (1959–60)	186,200				186,200	90,472
Grants for hospital construction (1958–59)				76,337	76,337	75,562
General research and services, National Institutes of Health	28,974				28,974	28,957
National Cancer Institute	75,268		11		75,279	69,409
Mental health activities	52,419		42		52,461	49,931
National Heart Institute	45,613				45,613	45,468
Dental health activities	7,420		1		7,421	7,406
Buildings and facilities, Cincinnati, Ohio				11	11	6
Arthritis and metabolic disease activities	31,215		358		31,573	31,484
Allergy and infectious disease activities	24,071		5		24,076	24,044
Neurology and blindness activities	29,403				29,403	29,033
Operations, National Library of Medicine	1,415	111	11		1,537	1,533
Construction of library facilities	6,975				6,975	4,734
Grants for waste treatment works construction (1959–60)	45,000				45,000	36,558
Grants for waste treatment works construction (1957–60)	657			9,670	10,327	9,670

[1] Liquidation of contract authorization obligated in 1958 fiscal year.

Table 1.—*Statement of appropriations, authorizations, and obligations, fiscal year 1959*—Continued

[In thousands]

Appropriations	Funds available for obligation				Total funds available	Amounts obligated
	Appropriations and authorizations	Net transfers between appropriations	Repayments for services	Prior year unobligated balances		
Construction of Biologics Standards Laboratory Building				$598	$598	$544
Construction of surgical facilities	$335			1,548	1,883	1,575
Construction of Dental Research Building	3,700				3,700	2,507
Grants for construction of health research facilities	30,000				30,000	29,960
Construction of animal quarters				154	154	
General office building	9,687				9,687	135
Construction of research facilities				105	105	1
Retired pay of commissioned officers	1,627	[2] −$51			1,576	1,576
Salaries and expenses	5,260	406	$55		5,721	5,703
National Institutes of Health management fund			22,153		22,153	22,109
Appropriations, special project funds made available by other agencies					7,567	6,529
Salaries and expenses, Bureau of Prisons (transfer to HEW, PHS)					1,921	1,920
American Sections, International Commissions, State (transfer to HEW, PHS)					70	69
Salaries and expenses, Office of Civil and Defense Mobilization (transfer to HEW, PHS)					170	170
Research and development, Office of Civil and Defense Mobilization (transfer to HEW, PHS)					356	120
Farm labor supply revolving fund, Bureau of Employment Security (transfer to HEW, PHS)					651	616
General administrative expenses, section 411, Mutual Security Act, executive (transfer to HEW)					51	49
Special assistance in joint control areas in Europe, executive (transfer to HEW)					3	3
Technical cooperation, general executive (transfer to HEW) (annual)					2,132	1,956
Technical cooperation, general executive (transfer to HEW) (no year)					1,734	1,166
Defense support, general executive (transfer to HEW)					312	298
Special assistance, general, executive (transfer to HEW)					153	148
Salaries and expenses, Office of Civil and Defense Mobilization (transfer to HEW, Office of Secretary)					14	1
Gift funds donated for general and specific purposes	152.9			143.4	296.3	122.4
Patients' benefit fund, Public Health Service hospitals	37.3			15.3	52.6	32.1
Public Health Service unconditional gift fund	27.3			46.1	73.4	15.6
Public Health Service conditional gift fund	88.3			82.0	170.3	74.7

[2] Adjusted by Treasury warrant.

Table 2.—*Commissioned officers and civil service personnel as of June 30, 1959*

	Full time						Part time			
	Grand total full time	Commissioned officers	Civil Service				Total part time	When actually employed	Without compensation	Other
			Total	Washington metropolitan area	States	Outside United States				
Public Health Service	25,050	[1] 3,586	21,464	9,134	12,176	154	1,310	[2] 750	192	368
Office of the Surgeon General	597	46	551	510	41		26	12	7	7
Immediate Office of the Surgeon General	28	8	20	20			6	6		
Division of Finance	131		131	129	2					
Division of Administrative Services	139	9	130	94	36		1	1		
Division of Personnel	140	16	124	124			6			6
Division of Public Health Methods	110	3	107	104	3		12	5	6	1
Offices other than divisions (Emergency Plans and Requirements Information, and, Executive)	40	1	39	39			1		1	
Details to other agencies	9	9								
Bureau of Medical Services	12,800	1,702	11,098	1,350	9,652	96	683	438	45	200
Office of the Chief	30	3	27	27			1	1		
Division of Dental Resources	22	5	17	17			61	61		
Division of Foreign Quarantine	585	48	537	31	429	77	34	18	6	10
Division of Hospitals and Medical Facilities	113	11	102	100	2		8	8		
Division of Hospitals	6,326	1,032	5,294	219	5,056	19	354	242	17	95
Freedmen's Hospital	797		797	797			38		10	28
Division of Indian Health	4,549	396	4,153	112	4,041		187	108	12	67
Division of Nursing Resources	50	12	38	38						
Details to other Agencies	328	195	133	9	124					
Bureau of State Services	4,066	1,023	3,043	1,007	2,025	11	281	119	123	39
Office of the Chief	115	7	108	108			13	1	11	1
Communicable Disease Center	1,195	229	966	5	957	4	69	24	40	5
Division of Dental Public Health	58	19	39	38	1		8		5	3
Division of General Health Services	375	31	344	286	58		75	24	50	1
Division of International Health	71	12	59	59			2		1	1
Division of Radiological Health	133	62	71	31	40		4	1		3
Division of Engineering Services	577	121	456	117	339		45	31	5	9
Division of Special Health Services	608	154	454	323	124	7	61	38	11	12
Division of Public Health Nursing	16	9	7	7						
Division of Health Mobilization	16	5	11	11						
Division of Water Pollution Control	39	23	16	15	1					
Regional Offices	704	192	512	7	505		4			4
Details to other Agencies	159	159								
National Institutes of Health	7,373	815	6,558	6,062	449	47	318	181	17	120

Office of the Director	49	7	42	42			2	1	1	
National Cancer Institute	1,092	174	918	740	178		45	21	2	22
National Heart Institute	500	103	397	318	79		29	12		17
National Institute of Allergy and Infectious Diseases	529	93	436	266	146	24	16	12	2	2
National Institute of Arthritis and Metabolic Diseases	439	89	350	348	2		34	30	3	1
National Institute of Dental Research	131	29	102	101		1	6	4		2
National Institute of Mental Health	623	83	540	497	43		56	28	2	26
National Institute of Neurological Diseases and Blindness	323	38	285	263		22	20	18		2
Clinical Center	1,544	126	1,418	1,418			73	37	6	30
Division of Biologics Standards	190	22	168	168			3	1	1	1
Division of Business Operations	749	1	748	748			4			4
Division of Research Grants	278	11	267	267			16	12		4
Division of Research Services	872	36	836	835	1		9	1		8
Division of General Medical Sciences	54	3	51	51			5	4		1
National Library of Medicine	214		214	205	9		2			2

[1] Includes 1,564 Regular Corps officers, 1,925 Active Reserve officers, and 97 Commissioned Reserve officers on temporary training duty.
[2] Excludes those part-time employees not in pay status during the month of June 1959.

Table 3.—*Research grants and awards, fiscal year 1959*

Program	Research project grants		Construction grants		Fellowships				Training grants		Traineeships	
					Full time		Part time [1]					
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Total	9,166	$142,627,730			1,771	$9,491,949	1,052	$681,696	1,956	$49,204,409	492	$2,503,322
Institutes:												
Allergy	1,150	14,530,124			202	865,814			76	1,787,096		
Arthritis	1,406	18,828,522			51	336,838			185	4,076,939	62	358,038
Cancer	1,635	29,741,748			301	1,250,356	272	176,256	203	5,098,535	285	930,267
Dental Research	340	3,483,647			41	247,214	270	174,960	28	649,992		
Heart	1,571	25,069,871			391	2,108,520	84	54,432	295	7,254,677		
Mental Health	900	17,093,434			289	1,145,175			740	19,635,242		
Neurological Diseases	1,009	17,021,566			99	474,352	94	60,912	219	4,421,865	145	1,215,071
Division of General Medical Sciences	1,155	16,858,818			397	3,063,680	332	215,136	210	6,280,063		
Division of Research Grants			211	$32,012,999								

[1] Part-time fellowship grant to institutions sponsoring part-time fellowship appointments are as follows: NIH total, 152: Cancer, 38; Dental Research, 45; Heart, 11; Neurological Diseases, 14; and General Medical Sciences, 44.

Table 4.—*Payments to States, fiscal year 1959*

[In thousands]

STATE	Venereal disease special projects	Tuberculosis control	General health	Mental health	Cancer control	Heart disease control	Water pollution control	Hospital and medical facilities construction	Waste treatment works construction
Total [1]	[2] $2,390	$3,995	$14,924	$3,986	$2,171	$2,075	[3] $2,591	$135,134	$36,429
Alabama	55	91	411	82	52	57	60	4,073	816
Alaska [4]		27	59	24	6	13	16	12	
Arizona	23	57	121	25	14	3	24	982	854
Arkansas	97	68	267	40	33	23	42	2,292	666
California	66	283	887	260	151	120	139	5,453	2,249
Colorado	24	34	160	37	24	27	30	1,047	891
Connecticut	8	40	124	46	26	26	30	1,272	578
Delaware	15	16	28	26	5	11	31	578	33
District of Columbia	78	36	51	25	9	15	24	399	249
Florida	90	85	362	83	47	44	59	3,610	839
Georgia	181	87	429	94	56	62	25	3,812	313
Hawaii		21	56	26	8	16	25	594	41
Idaho	10	15	88	26	13	17	20	503	568
Illinois [5]	200	224	618	199	88	75	86	5,348	1,654
Indiana		79	348	93	46	51	67	2,827	949
Iowa	6	37	256	63	11	30	39	2,764	795
Kansas	30	33	197	48	31	30	36	1,359	795
Kentucky	53	108	357	76	49	53	57	4,779	325
Louisiana	55	77	338	75	45	49	54	3,519	694
Maine		19	103	23	15	13	26	1,202	35
Maryland	37	79	209	62	34	36	52	1,840	364
Massachusetts		103	340	98	64	44	78	2,746	257
Michigan	91	143	531	163	88	71	91	5,021	1,679
Minnesota		49	300	74	39	39	51	2,476	883
Mississippi	82	62	360	63	45	52	52	3,021	324
Missouri	47	99	357	95	60	53	60	2,574	697
Montana	6	20	81	26	13	16	19	786	245
Nebraska	11	17	147	20	25	15	21	1,298	614
Nevada	6	13	44	26	3	9	9	294	105
New Hampshire		14	54	25	10	15	25	297	229

New Jersey	54	107	350	116	64	54	79	2,404	1,062
New Mexico	37	32	112	26	15	20	22	1,621	708
New York	225	376	995	313	190	137	174	6,828	1,234
North Carolina	143	89	524	105	66	69	80	3,978	1,474
North Dakota	11	16	100	26	14	18	21	933	426
Ohio	33	167	630	195	104	88	116	3,611	1,575
Oklahoma	25	55	237	52	34	35	37	3,542	878
Oregon	5	33	162	38	14	16	31	1,593	671
Pennsylvania	94	229	835	241	109	81	138	9,334	2,132
Rhode Island		23	54	24	11	15	29	666	174
South Carolina	119	61	312	62	38	47	53	2,597	424
South Dakota	7	13	101	23	12	7	22	1,266	128
Tennessee	74	110	408	87	44	53	64	5,114	789
Texas	160	178	835	209	116	110	88	8,260	2,170
Utah	5	14	74	19	11	12	23	1,092	701
Vermont		16	54	26	9	14	20	1,024	128
Virginia	42	103	360	88	50	39	60	3,400	884
Washington	2	53	214	57	34	32	40	2,451	424
West Virginia	30	54	224	49	31	36	37	3,637	498
Wisconsin		58	250	84	49	38	63	2,992	855
Wyoming	6	10	52	26	6	13	16	610	228
Guam			1	9	1	2			
Puerto Rico	30	154	350	62	38	51	25	1,403	125
Virgin Islands	17	8	7	26	1	3	5		

[1] Additional amounts as follows were paid during fiscal year 1959: $1,973,000 under title I, Public Law 911, for the public health traineeship program; $200,000 under Public Law 159 for air pollution training and demonstration programs; $442,000 under Public Law 85-544 to schools of public health for the provision of public health training.

[2] Includes $575,000 in services and supplies furnished in lieu of cash.

[3] Excludes $257,000 paid to water pollution interstate agencies under Public Law 660 as follows: $14,000 to New England Interstate Water Pollution Control Commission; $46,000 to Interstate Commission on the Delaware River Basin; $28,000 to Interstate Commission on the Potomac River Basin; $58,000 to Interstate Sanitation Commission; $111,000 to Ohio River Valley Water Sanitation Commission.

[4] Additional payments of $638,000 and $1,000,000 were made to Alaska under Public Law 85-580 and Public Law 830 for disease and sanitation investigation and control activities, and the mental health program, respectively.

[5] An additional payment of $25,000 was made to the Moline Hospital, Moline, Ill., under Public Law 139, which provided for construction of community facilities in defense areas.

Office of Education[1]

Introduction

FROM ALMOST EVERY PERSPECTIVE the fiscal year of 1959 was one of progress for American education. The criticisms of former years gradually were, for the most part, taking a more constructive turn, with frank appraisal and action resulting. American educators, school administrators, and informed laymen, knowing their schools were not perfect, were seeking without employing crash programs or overemphasis, to strengthen the broad foundation of public education so that every child could develop his potentialities to the fullest.

What were the influences which brought about this determination and the resultant achievements?

For a number of years, critics—laymen and professionals, informed and uninformed—had pointed out what they thought were weak spots in American education. Some of the criticisms were justified; others were not. During this period many bills designed to aid or support education were considered by the Congress and other legislative bodies.

Out of this criticism and from the debate on educational legislation, there came a sharper public and professional awareness of some of the basic deficiencies in the Nation's schools, which required concerted action to correct.

[1] The U.S. Office of Education was established by Congress in 1867 for the purpose of collecting and disseminating statistics and facts, and promoting the cause of education. The Office had approximately 920 employees at the end of fiscal year 1959. Its budget for salaries and expenses was $6,927,500. Federally appropriated amounts were administered by the Office for the following Federal programs: Vocational education, $40,888,412; land-grant colleges, $5,051,500; school assistance to federally affected areas, $225,400,000; cooperative research, $2,700,000; library services, $6,000,000; and defense education activities, $115,300,000.

While ways to remedy deficiencies in key areas were being sought, the American people would not forget the broad basis upon which their educational system is built. Results of the White House Conference on Education were fresh in the minds of schoolmen and laymen as they worked to improve all aspects of the educational program.

Fresher still were the recommendations of the President's Committee on Education Beyond the High School and the proposals of a task force on higher education appointed in 1957. These studies formed the basis for administration proposals which were introduced in both branches of Congress in January 1958. The legislation that emerged as the "National Defense Education Act of 1958" was a compromise, incorporating features of several bills.

NATIONAL DEFENSE EDUCATION ACT FILLS A CRITICAL NEED

The Act was signed into law by President Eisenhower on September 2, 1958. In it the needs of both education and national defense are served in the recognition "that in a free society the individual is the first line of defense."

What were the needs which the provisions of this Act sought to alleviate? A look at the following statistics reveals a few of the conditions which existed in the fall of 1958. Some of these indicate healthy growth; others indicate deplorable lags, shortages, and omissions. But they all reveal basic needs which, in part, the programs of the Act sought to meet. First, some desirable increases:

- The 1958–59 school and college enrollment totaled 44,540,000, or about 26 percent of the Nation's population, an alltime peak and an increase of 2,096,000 over 1957–58. Of the total United States population of persons between 6 and 17 years old in October 1958, 96.4 percent were enrolled in school.
- Public and nonpublic elementary schools—kindergarten through grade 8—enrolled 32,010,000 children, an increase of 1,340,000 over the previous year; secondary schools—grades 9 through 12—enrolled 8,940,000, an increase of 516,000; institutions of higher education, 3,590,000, an increase of 210,000. Enrollment increase over the previous year in the secondary grades was 6.1 percent and in the elementary grades, 4.4 percent.
- At the beginning of the 1958–59 school year there was an estimated increase over the previous year of 8,900 new qualified elementary and secondary teachers.
- Degree granting institutions of higher education conferred a total of 440,304 degrees in 1957–58, 7.1 percent more than in 1956–57.

But, unfortunately there were many undesirable conditions in some of the schools of the Nation:

- During the 1956–57 school year, only about one-third of the high school students in the grades where the courses are usually offered took chemistry or intermediate algebra; about one-fourth took physics.
- It is estimated that approximately 10 million public elementary and secondary school pupils attended overcrowded or double-session classes during the past year because of the need for 182,000 additional qualified teachers and more than 140,000 classrooms.
- Only eight State departments of education had full-time consultants in science; only three in mathematics; and only three in foreign languages.

- Only six States required their schools to maintain cumulative records of their pupils.
- The estimated current shortage of high school counselors was 15,000. More than 50 percent of all high school counselors were located in only seven states serving about one-third of the nation's secondary students, and an estimated two-thirds of these counselors did not meet minimum certification requirements.
- Few, if any, schools and colleges in the United States taught the languages spoken by more than three-fourths of the earth's population.
- In spite of an estimated need last year for a minimum of 30,000 new college teachers, only about 13,400 were recruited. Fewer than one-half of the approximate 9,000 persons who earned doctoral degrees, chose college teaching as a profession, and less than 2,000 entered college teaching for the first time.
- In the fields of mathematics and engineering, less than one-fourth of the new college teachers were Ph. D.'s.

Into such a flood of needs the National Defense Education Act was launched in the fall of 1958.

The administration of the National Defense Education Act, which was committed to the Office of Education with the exception of title IX, required an unusual amount of planning and action. Furthermore, it was urgent to implement the provisions of the Act with all possible haste as the school year was already beginning when this law was signed by the President. Activities relating to the National Defense Education Act, therefore, occupied a priority position among Office activities during the year.

CONTINUING OFFICE ACTIVITIES

Large as were the responsibilities inherent in administering the National Defense Education Act during the fiscal year, these activities were carried on in addition to the basic and continuing responsibilities of the Office of Education.

In fulfilling these responsibilities, Office staff members prepared scores of articles for the Office of Education periodicals *School Life* and *Higher Education* and for the professional journals of many educational organizations. Specialists from all branches of the Office cooperated with Federal agencies and other national organizations in projects of mutual concern to education. Consultative services were provided to State and local agencies on problems such as the improvement of personnel administrative practices, detailed procedures of recording and reporting educational data, current school and children's library problems, and educational legislative measures. Consultative services were also provided to private educational institutions.

Through its regular program of gathering, interpreting, and disseminating basic data, through its surveys of educational programs at all levels, and through research in organization and administration problems, the Office of Education endeavored to meet the needs for information and assistance. In performing these services, the Office

sought to focus attention on educational problems whose solution appeared to be essential to the national welfare.

The National Defense Education Act of 1958

In the National Defense Education Act of 1958 (Public Law 85–864) the Congress recognized that the defense and the security of the Nation are inseparably bound with education. The Act was another landmark in the history of Federal concern for education. It followed such historical educational legislation as The Ordinance of 1785, the Morrill Land-Grant Acts of 1862 and 1890, the Smith-Hughes Vocational Education Act of 1917, the Bankhead-Jones Act of 1933, the George-Barden Act of 1946, and Public Laws 815 and 874 of 1950.

The National Defense Education Act authorized the appropriation of over a billion dollars during its 4-year life. The programs which these funds inaugurate were wisely designed by the Congress to affect the entire system of education from the elementary grades through the graduate school. The prompt and effective implementation of these programs constitutes an impressive testimony to the untiring and dedicated efforts, not only of the staffs of the State departments of education and of the institutions for higher learning, but also the staff of the Office of Education.

ORGANIZATION AND PLANNING

Upon approval of the legislation, the Commissioner solicited the active cooperation of the chief State school officers and the presidents of colleges and universities, and advised with other leading educational officials and consultants, including personnel from State agencies and heads of national organizations, for the developing of guidelines and policies to implement the National Defense Education Act. More than 500 educators cooperated in this work. Within the first few months, a detailed explanation of the Act was made to approximately 4,000 key administrators in higher education.

The Commissioner designated four divisions of the Office of Education to assist with the administration of the measure. The Divisions assigned primary responsibility are as follows:

1. *Division of Higher Education:* Title II.—Student Loans; Title IV.—National Defense Fellowships; Title V, part B.—Guidance Institutes; Title VI.—Language Development.
2. *Division of State and Local School Systems:* Title III.—Financial Assistance for Strengthening Instruction in Science, Mathematics, and Modern Foreign Languages; Title V, part A.—Grants to States for Guidance, Counseling, and Testing Programs; Title X.—Grants to States for Statistical Services.

3. *Division of Statistics and Research Services:* Title VII.—More Effective Utilization of Communications Media.
4. *Division of Vocational Education:* Title VIII.—Area Vocational Programs.

In order to accommodate and centralize the activities growing out of some of the titles of the Act, sections of the Office were shifted and combined, and new branches were created. Twelve of the chief career administrators of the Office of Education were transferred to leadership positions in NDEA programs and about 30 experts recruited.

During the year numerous regional meetings were held under the sponsorship of the Office of Education. Great interest and enthusiasm were shown by State and local agencies, representatives of institutions of higher education, and by leaders in educational, scientific, and related organizations.

The meetings encompassing State programs were arranged in cooperation with State supervisory personnel. As a result of these sessions, mutually helpful channels for working relations between the U.S. Office of Education personnel and State and local supervisors were opened, misunderstandings were clarified, further interpretations were provided for, opportunities were given for State supervisors to explore common problems with Office personnel, and needed services which the Office of Education can provide were determined.

Similarly, regional meetings encompassing higher education programs were held in the fall of 1958 with representatives of higher educational organizations and institutions. Office specialists supplied information on the provisions of the various titles of the Act and on details for implementing the provisions. Consequently, these programs were in operation much sooner than would otherwise have been possible.

Broad plans for launching programs for more effective educational use of mass communications media were discussed at a major conference called by the Office of Education in October 1958, and held in Washington, D.C. At a second conference in January 1959, representatives of several major professional educational organizations and associations met to discuss ways and means of implementing the programs. Throughout the year Office staff participated in the meetings of national professional organizations to explain the provisions of title VII. Regional conferences are planned for 1960.

The National Defense Education Act is not to be regarded as a single specific program, nor as a string of isolated provisions. It is, rather, a mighty complex, in which each part reinforces the other, and all parts join to strengthen education across the board. In this report, however, an account of accomplishments under each title of the Act administered by the Office of Education will be given.

NATIONAL DEFENSE EDUCATION ACT IN FISCAL 1959

Title II.—Loans to Students in Institutions of Higher Education

Funds authorized for fiscal 1959: $47.5 million.
Appropriation for fiscal 1959: $31 million.
Basis: Institutions must provide $1 for each $9 in Federal funds.

This program is designed to help public and nonprofit private colleges and universities establish or increase student loan funds so that more able students can complete their higher education.

Accomplishments

- By the end of June 1959, the Office of Education had obligated $30,882,663 million to 1,197 institutions of higher education for student loans. With the institutions' own contributions to the loan funds, more than $34 million in Federal and institutional funds were made available to worthy students in fiscal 1959.
- A new set of guidelines was formulated for the evaluation of all 1959–60 student-loan applications by a special consultant panel composed of 12 distinguished college administrators. The new formula allowed the institutions more latitude in establishing their requests for funds, while at the same time it safeguarded the use of the funds in line with the statutory responsibility of the Commissioner of Education.
- Twelve regional workshop conferences on the student-loan program were held. These were instrumental in clarifying the provisions of the title, especially in identifying the degree of financial need of institutions.
- Regional representatives reported enthusiastic reception of the student-loan program in all parts of the country. Administrators in institutions of higher education were eager to talk with them. A rising tide of interest in the program was registered throughout the year by an ever-increasing number of inquiries that came to the offices of administrative heads, regional representatives, and to the Office of Education itself. These reports from the field indicated that institutions manifested a commendable ingenuity in the use of loan-program information and funds to attract talented students, to stretch institutional scholarship funds, and otherwise to make it possible for many students without funds to continue their education.

Title III.—Financial Assistance for Strengthening Science, Mathematics, and Modern Foreign Language Instruction

Funds authorized for fiscal 1959: $75 million.
Appropriation for fiscal 1959: $57.35 million.
Basis: Fifty-fifty matching required for equipment purchases and minor remodeling; no matching for State supervisory and related services in fiscal 1959 (fifty-fifty matching is required in the following years).

This program provides financial assistance through (1) grants to States for local elementary and secondary schools for the purchase of laboratory or other special equipment in the areas of science, mathematics, and modern foreign languages and for minor remodeling of laboratories; (2) loans to nonprofit private schools on the same level and for the same purposes; and (3) grants to States for expansion or improvement of supervisory or related services in public elementary

or secondary schools in the same subject areas, and for administration of the State programs.

Accomplishments

- State plans outlining programs under which funds would be expended for equipment and minor remodeling, were submitted for approval by 50 States and outlying parts of the United States, and 49 were approved by the end of the fiscal year. From an appropriation of $49,280,000, a total of $32,617,341 was certified for payment to States for this purpose.
- Of 132 completed applications for loan funds submitted by nonprofit private schools, 88 were approved by the close of the fiscal year. The sum of $6,720,000 was appropriated for the year, and of this amount $1,104,919 was approved for loans. The loans varied in amounts from less than $1,000 to more than $50,000.
- The States, upon being advised that their plans had been approved, augmented their professional and administrative staffs in order to supervise the programs. From an appropriation of $1,350,000, a total of $1,130,756 was certified for payment to the States for this purpose in fiscal 1959. The States established procedures for local educational agencies to follow in submitting their projects for approval, and standards for equipment to be purchased. They held conferences with representatives of local school systems to explain the Act and the requirements for participation.
- Under the leadership of the Council of Chief State School Officers and with the cooperating assistance of the Bureau of Standards and the Office of Education, a valuable book entitled *Purchase Guide* was published, and 44,000 copies were distributed free to schools. The *Guide* contains valuable aid to local school systems in making application to State educational agencies for assistance in purchasing items of equipment in the fields of science and mathematics and on new methods and materials for teaching modern foreign languages.

Title IV.—National Defense Fellowships

Funds authorized for fiscal 1959: Sums sufficient for 1,000 fellowships.
Appropriation for fiscal 1959: $5.3 million.
Basis: No matching required.

This program is designed to assist in the expansion and improvement of facilities for graduate education and to increase the supply of well-trained college and university teachers.

Accomplishments

- The 1,000 fellowships authorized in 1959 were administered through 272 programs in 123 graduate schools. These programs were chosen from among 1,040 proposals submitted by 169 graduate schools, and called for 6,000 fellowships. Because of the time necessary to process these applications, it was impossible for any fellows to begin study before summer, and the great majority began their work in September 1959.
- The total cost of the fellowships approved in fiscal 1959 was estimated at $5.3 million. Of this amount approximately half was for fellowship stipends and dependency allowances and half was for grants to participating institutions to provide the cost of educating the fellows.
- College and university heads were enthusiastic over the fellowship program. They encouraged teachers on their staffs with less than the doctor's degree and promising young men who were just finishing their undergraduate work, to make application for graduate fellowships.

Title V.—Guidance, Counseling, and Testing; Counseling and Guidance Institutes

Part A—State Programs for Guidance, Counseling, and Testing

Funds authorized for fiscal 1959: $15 million.
Appropriation for fiscal 1959: $7.4 million.
Basis: No matching for 1959. Fifty-fifty matching for the following years.

This program provides for testing programs in secondary schools to identify students with outstanding abilities and a program of guidance and counseling in the public secondary schools.

Accomplishments

- During the fiscal year, 47 of the States and outlying parts of the United States submitted plans involving total funds in the amount of $6,238,538, which were approved for payment to the States submitted in time for use in the spring of 1959.
- States participating in title V(A) spent an estimated 18 percent of the funds for State supervision and related services; 38 percent for testing; and the remaining 44 percent for local guidance and counseling programs.
- Under the provision whereby nonpublic schools may receive funds for testing their students, 728 applications involving 54,693 students were filed from 26 States and the District of Columbia. Funds for this purpose in the amount of $50,752 were withheld from State allotments.

Part B—Counseling and Guidance Institutes

Funds authorized for fiscal 1959: $6.25 million.
Appropriation for fiscal 1959: $3.4 million.
Basis: No matching required.

This program is designed to increase the supply of qualified guidance and counseling personnel and to improve the competence of those now working in the counseling field.

Accomplishments

- Fifty counseling and guidance training institutes located in widespread geographic areas of the country were operated during the summer of 1959. These enrolled approximately 2,210 secondary school counselors. The estimated cost of operating the institutes was $2,248,319.
- Seven institutes were authorized to be held during regular sessions, beginning in the fall of 1959. It is estimated that in these institutes more than 300 persons with little or no previous training will receive instruction at a cost of more than $1.1 million.
- More than 300 institutions advised the Office of Education that they wanted to participate in this program. Approximately $5 million, available for the coming fiscal year, will make it possible to operate institutes in an estimated 98 of these institutions.
- In spite of the excellent geographical dispersion achieved in locating these institutes, teachers in many areas found it impossible to travel the distance to attend. It is hoped that the benefits of this title will soon be extended to those areas where few counseling programs exist.

Title VI—Language Development

Part A—Language and Area Centers, Fellowships, and Research

Funds authorized for fiscal 1959: $8 million.
Appropriation for fiscal 1959: $3,416,000.
Basis: Fifty-fifty matching required for centers; not matching required for students receiving stipends.

This program provides for centers for teaching foreign languages rarely taught in this country; for modern foreign language fellowships; and for research related to more effective and extensive methods of teaching languages and to the development of specialized teaching materials.

Accomplishments

- Agreements for the establishment of 19 language and area centers were completed with 14 institutions. These centers are providing instruction not only in the languages themselves but also in the economic and cultural aspects of the countries or areas in which the languages are spoken. From the 1958–59 appropriation, approximately $500,000 was obligated for this purpose.
- From 354 applications the Commissioner awarded 171 foreign language fellowships for advanced study and research in 25 institutions of higher education. These are distributed as follows: 22 in Arabic, 32 in Chinese, 10 in Hindustani, 24 in Japanese, 14 in Portuguese, and 69 in Russian.
- Eleven of the awards were for summer-session 1959 studies; 25 were for studies beginning in the summer and continuing through the 1959–60 academic year; and the remaining 135 awards were for the 1959–60 year only. An estimated $500,000 has been allocated for these fellowships.
- Twenty research and development projects (studies and surveys, 6; research of more effective teaching, 6; and development of specialized materials, 8) were under contract with institutions of higher education, organizations, and individuals. These projects ranged in character from sending an American scholar to the Near East to make recordings of a critical but little-known Asian language to a massive 3-year program for developing instructional materials in 25 Ural-Altaic languages. A typical project was a 3-year survey of all aspects of modern language instruction in the United States. A total of $2,415,749 from 1958–59 funds was obligated for these studies.

Part B—Modern Foreign Language Institutes

Funds authorized for fiscal 1959: $7.25 million.
Appropriation for fiscal 1959: $1,594,617.
Basis: No matching required.

This program provides for institutes to be established in institutions of higher education to improve the skills and effectiveness of elementary and secondary school teachers of modern foreign languages.

Accomplishments

- Twelve summer-session institutes were established from among 251 proposals submitted. At the first institute to get underway 1,500 language teachers applied, of which 100 were enrolled. Approximately 1,000 teachers attended

these institutes which ranged from 6 to 8 weeks in length and provided instruction for elementary and secondary school teachers of French, German, Spanish, and Russian.

- Four academic-year institutes were planned for operation during the 1959–60 school year. At one, 20 secondary school teachers will study Russian; at a second, 20 secondary school teachers of Spanish will further their studies; at a third, 20 secondary school teachers of French will study; and at a fourth, 35 elementary teachers of modern foreign languages will continue their studies.
- The total cost of the language institutes program for fiscal 1959 was about $1.5 million.

Title VII.—Research and Experimentation in More Effective Utilization of Communications Media

Funds authorized for fiscal 1959: $3 million.
Appropriation for fiscal 1959: $1.6 million.

This program provides for research and experimentation in the educational uses of television, motion pictures, radio, and related media, and for the dissemination of information on these media to State and local educational organizations and to other educational institutions.

Accomplishments

- After evaluating more than 350 proposals, the Advisory Committee approved 69 of these. The Office of Education gave grants amounting to $1,349,985 to 23 of the 69 successful applicants. Complete funding of all activated projects, requiring a total of more than $5,353,000, must wait availability of funds in the future.
- Of the 65 proposals which have been approved, and on which negotiations are complete, 19 are concerned with an investigation of the types of content suitable to teaching via the new media, 20 are investigating methods of using the media in teaching, 17 will examine the quality of education resulting from the use of the media, and 9 are making direct comparisons between the effectiveness of the media and of traditional methods of instruction.
- The Office of Education contracted 14 dissemination projects for a total expenditure of approximately $250,000. These dissemination projects were concerned with one or more of the following purposes: to provide information about research completed, in process, or projected; to provide more information about significant programs and teaching practices; to increase the accessibility and availability of the new media by bibliographic and direct means; to improve directly the educational use of the media and the training of teachers for such use; and to develop national goals, standards, and guidelines for improved educational uses of the media.
- Total obligations under title VII were $1,599,935.

Title VIII.—Area Vocational Education Programs

Funds authorized for fiscal 1959: $15 million.
Appropriation for fiscal 1959: $3.75 million.
Basis: Fifty-fifty matching by State and/or local funds.

This program is designed to fit young people and adults for useful employment as highly skilled technicians in recognized occupations requiring scientific knowledge, as determined by the State Board for each State, in fields necessary for the national defense.

Accomplishments

- Forty-six States, Hawaii, Puerto Rico, and the District of Columbia participated in programs under this title during fiscal 1959.
- Approximately 47,500 persons were enrolled in more than 660 title VIII programs and courses during the fiscal year.
- Offerings during the year provided training for highly skilled technician occupations in fields such as electronics, drafting and design, tool and die design, instrumentation, industrial chemistry, business data processing, and computer programming. Since extensive day-school courses could not be established quickly, most of these vocational courses were of the extension type.
type.

Title X.—Section 1009: Improvement of Statistical Services of State Educational Agencies

Funds authorized for fiscal 1959: $2.75 million (not to exceed $50,000 for any one State).
Appropriation for fiscal 1959: $489,383.
Basis: Fifty-fifty matching.

This program is designed to help the States improve the accuracy, speed, and scope of their statistical services so that nationwide data on the condition and progress of education will be greatly improved.

Accomplishments

- Plans from 42 States, the District of Columbia, Hawaii, and the Virgin Islands were approved. Twenty-nine of the States and outlying parts of the United States completed their applications in time to receive funds amounting to $365,927 during fiscal 1959.
- A variety of ways of improving statistical services were revealed in these plans. Forty-two States planned to add personnel; 41 to adopt standard terminology, definitions, and units of measure; 26 to improve their State agency statistical services organization; 17 to speed the process of collecting, analyzing, and reporting by the installation of data processing machines; 18 to add data-processing machines to those already in use; 37 to issue manuals and handbooks for use of local school personnel who record and report statistics; 43 to provide workshops and conferences in local communities for the inservice training of these local school personnel; 41 either to broaden their data collection systems or to close the gaps in their present ones.
- These plans will make it possible for the States to improve the adequacy and accuracy of data and to speed the collecting, processing, and reporting of educational information. Many of the States will conduct conferences, workshops,

and other kinds of inservice training activities to increase the efficiency and competency of local and State personnel engaged in recording and reporting educational data.

- Furthermore, 43 of the States planned comprehensive and intensive evaluations of their entire statistical services in order to provide wisely for future needs. A large number of States analyzed their statistical reporting services with a view to improving public relations techniques along these lines.

Statistics and Research

EDUCATIONAL STATISTICS

Besides carrying on 34 recurring surveys and cooperating with educational specialists throughout the Office of Education, the statistical branch of the Office continued its traditional advisory and consultative responsibilities—greatly increased by NDEA activities. During 1959, statistical services to specialists conducting educational research projects were considerably accelerated. In the area of higher education, 19 surveys were conducted on the following subjects: enrollment, faculty, earned degrees, receipts and expenditures, property, and organized occupational curriculums. Two surveys of State school systems dealing with problems of enrollment, teachers, and schoolhousing were made. The area of local school systems was covered by 13 surveys on the following subjects: current expenditures per pupil, suburban systems, city systems, rural county systems, secondary school programs, the beginning public classroom teacher, and teacher turnover. The Office developed projections to 1970 of important statistics such as annual teacher shortage, enrollment, and earned degrees.

The Office of Education, under contract with the National Science Foundation, collected information on research staff and expenditures in institutions of higher education throughout the Nation—the first national study of its kind to be conducted. These data were published under the title *Survey of Higher Education Research Staff and Expenditures* and will be valuable to various Federal agencies in planning for scientific research to be conducted at colleges and universities. The data will also reveal the need for the development of research programs in the basic sciences in various institutions in the States.

Under contract with the National Science Foundation and the National Institutes of Health, the Office began the first definitive survey of programs of study of graduate students by selected fields of study. Titled *Programs of Study of Graduate Students*, the survey will classify the programs under the following types: (1) mathematics, (2) physical sciences, (3) life sciences, and (4) medical and health fields and related social sciences.

Survey of Teachers Leaving the Teaching Profession, the first scientific national study of the rate of loss to the teaching profession

of public school teachers, was completed during the year. The survey disclosed that, within the period September 1957 to September 1958, 10.9 percent of all teachers left the profession. For a number of years, Office of Education estimates of teacher turnover have been based on 7.5 percent loss. (See table 2.)

An Advisory Committee of Users of Educational Statistics, composed of 14 outstanding individuals interested in education, was appointed by the Commissioner at the beginning of the fiscal year. At meetings held during the year the committee discussed problems of statistical reporting and dissemination and the unmet needs for statistics in the areas of elementary and secondary schools and higher education. Office programs for educational statistics in these areas formed the basis for the discussions.

As an outgrowth of the activities of this committee, Office of Education statisticians began a compilation of needs for educational statistics. Sources used in compiling this list of unmet needs, to be revised annually, are users of educational statistics in agencies of the Federal Government, Office specialists, organizations of professional educators, and letters of inquiry addressed to the Office. More than 150 types of unmet needs have already been identified.

LIBRARIES AND LIBRARY SERVICES

Increasing population and school enrollments, present teaching methods which stress wider use of library source materials, and the extension of library resources to wider areas of the population have created a growing demand for professionally trained librarians. In 1957–58 there were one-third more schools granting library science degrees than there were 10 years ago, but the number of graduates (1,866) remained about the same. The resulting shortage was responsible for the use of many untrained or undertrained persons during fiscal 1959. It was also one of the factors responsible for an increase in beginning salary for graduates from accredited library schools. These salaries increased from $3,150 in 1950 to $4,683 in 1959, whereas salaries of those already in the profession were not raised accordingly.

Library Services to Rural Areas

Under the Library Services Act (Public Law 597, 84th Cong.), enacted in 1956 to improve and extend library services to rural areas with no libraries or with inadequate services, $6 million was appropriated for fiscal 1959. During this third year of the program, 46 States, Hawaii, Guam, Puerto Rico, and the Virgin Islands expanded their services with a total budget of $17,324,632, of which only $5,506,514 was from Federal funds. It is evident that the Act stimulated the States and rural communities to provide additional library services.

During the past year, the State library agencies gave additional

attention to the establishment of county, multi-county, or regional library systems; the establishment of State library branches and centralized cataloging centers; adoption of inservice training and scholarship projects; and the establishment of several programs of cooperation between States. The overall State planning, which this legislation requires, continued to be a major contribution of the Act.

Since the passage of the Act in 1956, State funds for the development of rural public library service have increased 45 percent. Over 800 rural counties across the Nation have received new or improved public library service. More than 135 new bookmobiles and other vehicles have been placed in operation in rural areas by State library agencies. These agencies have added more than 70 field consultants, 100 other professional librarians, and 300 clerks, bookmobile drivers, and other employees. Over 200 county and regional library projects have been organized. Cooperation between libraries and areas without libraries was an important factor in this development program.

Public Libraries

Public libraries have always been a source and center of education and recreational reading. But in the past they have been severely limited in number, resources, and geographic distribution. Recently, however, there has been a public awakening to the need for improving the facilities of these institutions, of providing adequate and improved distribution of resources to rural and urban areas, and of extending these services to the aging.

Approximately every 5 years the Office of Education conducts a comprehensive study of the Nation's public libraries. During each of the intervening years, it publishes a series of five brief annual surveys for the larger public libraries—those serving populations of 35,000 or over.

The 1956 nationwide report showed a total circulation of almost 490 million books, an increase of more than 100 million over 1950. Annual income for 1955–56 was approximately $185.5 million, of which 87.3 percent came from local public funds, 2.7 percent from State sources, and 10 percent from endowments, gifts, and other sources. Of the $170.2 million spent for annual operating costs, approximately $104 million was spent for library staff salaries, an increase of 58.7 percent over the $65.4 million spent in 1950. Expenditures for books and other library materials rose from $17.5 million in 1950 to $26.8 million in 1956.

The Office supplied staff assistance to aid in planning the first nationwide institute on library service to the aging, an area of increasing concern to public libraries. Staff members also compiled a selected and annotated bibliography entitled *Education on the Aging*. Cooperation on various projects was maintained with the

Special Staff on Aging, the Federal Council on Aging, and the National Committee on the Aging.

School Libraries

During the past year, the Office published *Certification of School Librarians: A Compilation of State Requirements, 1958*, to provide needed information on policies, practices, and requirements in the certification of school librarians. This study revealed that in all States except one, school librarians must be certified as teachers, and was useful in determining the eligibility of prospective school librarians for loans under title II of the National Defense Education Act.

Office staff members prepared materials to assist librarians in the interpretation of the National Defense Education Act, among them an article which appeared in the *Wilson Library Bulletin* and a bibliography, *School Library Materials in Science, Mathematics, Modern Languages, and Guidance, and How To Use Them*, to assist administrators, librarians, and teachers in the location of sources, and selection and use of materials under titles III and V of the NDEA. Over 9,000 reprints of this bibliography, originally published in the January-February issue of *School Life*, have been supplied on request to the schools.

College and University Libraries

During fiscal 1959, work was begun on a nationwide survey of libraries in institutions of higher education. When the report is finished it will be included in the forthcoming *Biennial Survey of Education, 1956–58*. The study indicated that only 40 percent of the libraries covered by the survey reached the minimum of 50,000 volumes, a standard recently formulated by the Association of College and Research Libraries. Library expenditures in these institutions represented only 3.1 percent of total institutional expenditures as compared with the ACRL-recommended 5 percent. This 3.1 percentage has remained constant over the past 10 years, although the percentage of expenditures for organized research has nearly doubled.

In the face of rising enrollments and increased use of libraries, severe inadequacies still exist not only in finance, but also in building facilities and procurement of qualified staff.

COOPERATIVE RESEARCH PROGRAM

The Office of Education provides support for research in education through its Cooperative Research Program. This program is operated under Public Law 531, 83d Congress, which authorizes the Commissioner of Education "to enter into contracts or jointly financed cooperative arrangements with universities and colleges and State educational agencies for the conduct of research, surveys, and demonstrations in the field of education." The purpose of this pro-

gram is to develop new knowledge about major problems in education and to devise new applications of existing knowledge in solving such problems.

This program was initiated in July 1956. The appropriation for that first year was approximately $1 million. For the second year it was $2.3 million and for the third year $2.7 million. By the end of its third year, the program had received a total of 767 applications for the support of various research projects. These were all reviewed by the Office of Education Research Advisory Committee, which recommended 244 of them to the Commissioner for support.

As of June 30, 1959, a total of 192 projects had been initiated since the beginning of the program. The largest number—58—deals with the education of the mentally retarded. There are also 24 projects having to do with the selection and career development of teachers and school administrators, and there are 23 projects dealing with the identification and development of gifted children.

During 1959 alone there were 271 applications received, and the Research Advisory Committee recommended 86 of these projects for support. The total of $2.7 million, which was made available in the appropriation, was obligated during this year. Approximately half of this amount was used to continue the support of projects begun during the previous 2 years, and the remainder was used for the initiation of new projects. By the year's end, 59 new contracts had been signed. Among them were 10 dealing with the identification and development of gifted students, 6 concerned with school organization and administration, 6 on the selection and career development of teachers, and 5 on the education of the mentally retarded. These projects are distributed through 40 States and outlying parts of the United States. There are 39 colleges and universities and 2 State departments of education participating in the 59 projects initiated during 1959.

To date, a total of 43 final reports on completed projects have been received and accepted. The reports themselves are being distributed as widely as possible in appropriate libraries. Summaries of the findings are also being extensively distributed to teachers and others concerned with putting the results of research into practice. In addition, numerous articles have appeared in professional journals. These describe the research procedures and the findings and thus make both the techniques and the results available to other researchers and to various professional groups.

Two publications describing the program were issued during 1959. The first of these, *Cooperative Research Projects: Fiscal 1958*, groups the studies initiated during the second year of the program under general categories. It summarizes the problem, the major objectives, and the general procedures to be followed in each research project.

The second publication, *Projects Under Contract: July 1, 1956–December 31, 1958*, lists the title, the institution, the chief investigator, the duration, and the funds provided for all projects initiated since the beginning of the program.

Three research seminars were presented by the Cooperative Research Program during the year. These were held in the Department of Health, Education, and Welfare for the purpose of sharing information about specific research projects with interested professional personnel in Federal agencies and professional associations and with practicing educators in the area of Washington, D.C. At these seminars, the researchers described their projects, reported on techniques and materials being used in the research, and discussed possible findings. The projects covered at these seminars were (1) Community Understanding as a Factor in the Financial Support of Public Education, (2) Development of Criteria of Success in School Administration, and (3) Modular Coordination Research for School Buildings.

Now that the Cooperative Research Program is established as a continuing function, plans are being made in three definite areas to strengthen and develop it.

1. National goals are being established for research in education. In defining these goals, the Office will work with representatives of the many professional organizations concerned with social science research, and with those of other government agencies concerned with educational research.

2. A nationwide survey is being made of the research in education which is underway at the present time. This survey should make it possible to identify more clearly the major problems and in turn should enable the Office of Education to focus its Cooperative Research Program on the most pressing needs.

3. Research projects already completed are being analyzed and the findings used as the basis for the development of new theory in education. To do this, the Office plans to set up study groups composed of outstanding persons with common interest in a specific area. Each group will examine the research in its area and that in related disciplines. The findings will then be synthesized in an attempt to provide a basis for badly needed theory related to the educational process. This theory will be tested through field studies, which will serve not only for evaluating the theory but also for demonstrating new practice.

EDUCATIONAL MEDIA

Fiscal year 1959 saw a continued increase and a wider and more effective use of motion pictures, television, radio, disk and tape recordings, and still-projected materials for instructional purposes in the schools of the United States than at any time in the past.

In a survey of 3,660 16-mm. motion picture film libraries, it was found that there are 1,009 film libraries, housing 561,376 films, which are operated by educational institutions or agencies. Eleven new educational television channels began operation during the past fiscal year, bringing to 43 the total currently on the air. Five new FM radio stations started broadcasting, making a total of 158 FM and 29 AM radio stations owned and operated by educational institutions.

The most significant development for the educational uses of the new media during the fiscal year was the passage of the National Defense Education Act of 1958. Titles III and VI both provide for emphasis upon the new media for the improvement of instruction in selected subject areas. Even more important for new media development is title VII, which provides for Federal support of research in and the dissemination of information about new educational media.

To implement the provisions of title VII, the Office of Education has established the Educational Media Branch in the Division of Statistics and Research Services. The branch consists of two sections: the Research Section, which administers the provisions of part A of title VII, and the Dissemination Section, which administers provisions of part B of the title. In order to use the existing experience and knowledge in the Office of Education to best advantage, two sections of the Division of State and Local School Systems, the Radio-TV Section and the Visual Education Section, have been integrated into the Dissemination Section of the new branch.

Although no funds were appropriated for fiscal 1959 for the new program "Captioned Films for the Deaf," members of the staff have devoted considerable effort to the establishment of policies, procedures, and criteria for future use.

State and Local School Systems

Three of the most serious problems that faced the Nation's schools during fiscal 1959 were teacher shortage, inadequate financial support, and classroom shortage. Each of these acute problems will be discussed in the following pages.

TEACHER SHORTAGE

Year after year, with only slight changes for better or worse, the teacher shortage persists. The National Education Association's 1959 report on teacher supply and demand identified a number of major factors responsible for the shortage. Among these are the following: (1) the enormous year-by-year increases in enrollment, (2) the competitive manpower demands of peacetime national defense and industrial and commercial operations, (3) the ready admission into

fields heretofore largely closed to them, of educated women, who in former years would have looked toward teaching as their major occupation, (4) the low salaries paid to teachers in the vast majority of school districts of the Nation, (5) the upgrading of professional standards, and (6) the imbalance between the number of college graduates and the total needs of the Nation. These factors applied in a greater or lesser degree to all levels of teaching in fiscal 1959.

A study of the teacher supply and demand figures in table 2 reveals that there was need for 182,000 additional qualified elementary and secondary school teachers in 1958–59. This figure is considerably higher than earlier estimates had indicated. A recent Office of Education survey revealed that the annual turnover rate formerly placed at 7.5 percent had advanced to 10.9 percent. This increased rate accounted for approximately 45,000 of the total shortage.

Elementary level.—Although there was a slight percentage of increase in number of elementary teachers (based on the previous year) over the percentage of increase in elementary pupil enrollment, it was not significant enough to affect the aggregate shortage for fiscal 1959. This was due primarily to the backlog shortage which has persisted for the past decade or more and to the increased yearly enrollment estimated to be 1 million on the average over the past 10 years.

During this period, however, there had been a steady improvement in certification standards of elementary teachers. While this may have increased the number of teachers with substandard credentials (there were about 8 percent in 1958), the overall effect has been to increase the percentage of total teachers with standard credentials. Approximately three out of four elementary teachers in fiscal 1959 were college graduates.

Although there are encouraging signs in the picture of teacher supply for elementary schools, it is still true that the greatest need for teachers will continue to be, as it has been for some years, at the elementary level.

Secondary level.—The high school scene is a bit more encouraging. The greatest need for teachers at this level is not so much in total numbers as in better distribution of those preparing to enter secondary teaching. In this respect there are heartening signs. For instance, there were 6.2 percent more 1958 college graduates who were prepared for high school teaching than there were in 1957, but there were 11.0 percent more prospective science teachers and 12.3 percent more mathematics teachers in 1958 than there were in 1957. This better distribution reflects the influence of teachers and counselors in institutions of higher education in pointing students towards teaching as a career.

National Defense Education Act and teacher shortage.—NDEA title II provides loans—stimulated by a possible 50-percent forgiveness—to those who plan to teach on the elementary and secondary level. Part B of title VI provides stipends to elementary and secondary school modern language teachers for training at language institutes. Title V is designed to increase the supply of qualified counselors in secondary schools.

FINANCING EDUCATIONAL SERVICES

In the general field of financing public education, the most prominent development of fiscal 1959 was the growing conviction of a number of educational associations and organizations that the Nation must improve its program of public education by increasing substantially the public revenues for this service. A doubling of the present revenues was frequently mentioned. Reasons cited for this need were expanding enrollments, necessity for constructing more classrooms, shifting populations, inflation, the improvement of quality in educational services, and the attraction and retention of good teachers.

A substantial increase in funds for public education had been recommended in *A Report to the President* issued by the White House Conference on Education in 1956. Similar recommendations were vigorously urged in *The Pursuit of Excellence: Education and the Future of America*, issued as the Rockefeller Report on Education in 1958; in *Public Understanding and Support for Education*, issued by the Problems and Policies Committee of the American Council on Education in 1958; and in *Education for the Age of Science*, issued by The President's Science Advisory Committee in 1959. These views were also supported by a publication entitled *National Policy and the Financing of the Public Schools*, issued by the Educational Policies Commission.

How much to spend for education.—The Educational Policies Commission was quite specific about the amount of the increase. Instead of recommending "double," it presented a method by which any community, State, or region can determine a reasonable amount to be expended for current operations of public education.

The formula suggested by EPC is based upon two principles. The first is that at least 50 professional staff members are needed for every 1,000 pupils enrolled in satisfactorily organized school administrative units. The second is that an adequate average beginning salary for new college graduates in the educational profession should be equal at least to that offered in other occupations open to the candidates. A calculated average salary for professionals in

education is then used in estimating the total expenditures for current operation of the public schools.[1]

The EPC procedure further proposes that the annual per-pupil current expenditure needed is 12 percent of the average paid annually to other beginning employees in occupations requiring a college degree. According to this formula, the amount required to raise school expenditures to this level over the Nation was estimated to be about $8 billion for the 1958–59 school year.

Sources of additional funds.—Funds for the operation of public elementary and secondary schools were derived from governmental sources in the following approximate national average percentages in fiscal 1959: local, 56 percent; State, 40 percent; and Federal, 4 percent. These percentages have continued with only slight changes over the past 10 years, but they may be altered by substantial increases in school revenues required in the years immediately ahead.

School revenues from local taxes are obtained chiefly from the local property tax. Programs designed to improve the general property tax have been authorized in many States, and it is evident that this tax is being revised and made more equitable through the upgrading of assessments, the reconsideration of restrictions on voting levies, and the modification of exemptions. Advancement of the property tax will make it more productive in providing revenues for schools, but the very large increases proposed appear to be more than can be expected from tax revenues in the local school administrative units.

Some increases in local revenues for schools may be obtained from local nonproperty taxes authorized for school support in some States. These may help to augment the local revenues for the public schools, but again, few would urge adoption of these taxes to the extent that would be required for the expansion recommended by nationwide study groups and national leaders.

State appropriations for the public schools have shown substantial increases in recent years. These increases, however, have been ab-

[1] The calculations involved in the EPC formula are based on statistical studies which indicated $4,500 as the approximate average beginning wage in occupations for which a college degree is required. The average wage of all professionals in a number of school systems throughout the Nation was found to be approxmiately 1.7 times the average beginning salary. In order to find a desired minimum average wage for a professional staff, $4,500 is then multiplied by 1.7 ($4,500×1.7=$7,650). Based on a 1958 public school pupil enrollment of 34,620,000—K–12—(see table 1), the number of professionals (teachers and administrators) needed according to the EPC formula (50 for each 1,000 pupils) would be 1,731,000. Total salaries for these professionals would be $13,242,150,000 (1,731,000× $7,650). Total salaries of professional staffs in a number of school systems have been found to be, on the average, approximately 70 percent of yearly current operations. Dividing $13,242,150,000 by 0.70 would yield $18.9 billion—the amount needed for current expenditures for the Nation's public schools in 1958–59. The actual amount expended for current operations was an estimated $10.7 billion. More than $8 billion, therefore, would have been needed in 1958–59 to raise current expenditures to the level suggested by the EPC formula.

sorbed by inflation or increased enrollments, and the proportion of funds provided from State sources has advanced only slightly.

Probably the most significant improvement in State systems for financing the public schools is seen in the programs for school construction. A recent study by the Office of Education revealed that 35 States and 3 outlying parts of the United States have programs for assisting the local school administrative units in financing additional classrooms. In 1956–57, 19.5 percent of the total capital outlay for this purpose came from the following sources: 8.3 percent from State loans and State grants and 11.2 percent from school building authorities in the States. In 1955–56, the percentage from both of these sources was 15.6.

Publications on school finance.—Supplying authoritative and comprehensive information on financing the public schools is regarded as an important contribution the Office of Education makes in advancing public education. In this effort, the Office gathers information chiefly from the State departments of education and makes such information available under the following titles: *Federal Funds for Education; Local, State, and Federal Support of Education; Local, State, and Federal Funds for Public School Facilities; Sources of State and Local Revenue for Education; State Fund Distributions to Local School Systems; State Provisions Affecting Local School Support; Financing Public School Facilities;* and *Public School Finance Programs of the United States.* Through the use of factual data supplied in these publications, local, State, and national leaders in school finance can evaluate present programs and recommend improvements necessary to the national welfare.

SCHOOL HOUSING

Office of Education records show that in the fall of 1958 there were 33.9 million pupils enrolled in the full-time, public elementary and secondary schools of the country. This was an increase of 1.1 million pupils, or 3.5 percent, over enrollment figures for the fall of 1957.

Available to these pupils and their 1,301,000 full-time and part-time teachers were 1,233,000 classrooms. These included 71,600 classrooms either newly constructed or converted from other uses, which were added in continental United States during the 1957–58 school year. During the same year, 17,300 classrooms were abandoned because of obsolescence, school district reorganization, population shifts, and other reasons. It was estimated that 140,500 additional instruction rooms with related facilities were needed in the fall of 1958. Of these, 65,300 were needed to house 1,843,000 pupils in excess of normal capacity who were either attending half-day sessions, were enrolled in overcrowded or substandard rooms, or were accommodated in

rented quarters, and 75,200 classrooms were needed to replace otherwise unsatisfactory classrooms.

State reports compiled by the Office indicated that 68,400 additional instruction rooms with related facilities, such as gymnasiums, auditoriums, cafeterias, storage rooms, and other necessary spaces, were to be constructed during the 1958–59 school year. It was estimated that the total capital outlay, including the cost of these facilities, will be approximately $3 billion.

In spite of continuous efforts to provide adequate school facilities in the United States, the problem of classroom shortages remains acute. It was estimated by the Office of Education that in September 1959, there would still be a shortage of at least 130,000 classrooms.

During fiscal 1959, specialists of the Office of Education completed a number of studies dealing with significant school plant problems. In response to a request from UNESCO, a bibliography covering published materials in the United States on school furniture, equipment, and supplies, together with samples of these published materials, was prepared and sent to Paris for display and use in the Education Clearing House of UNESCO.

Office of Education specialists, utilizing the results of Office studies on children's body measurements, provided consultative services in connection with problems of design and manufacture of school furniture and equipment. They cooperated with regional organizations of State school plant specialists in making school plant cost studies, in developing State school plant programs, and in outlining procedures for determining and financing long-range school construction needs. They also cooperated with various school systems in making a number of studies on school plant safety. They worked with technological groups in connection with the development of new construction materials and in the application of new concepts and techniques in school construction procedures.

A conference on school facilities was held by the Office of Education to identify improvements needed in its services to State and local school systems and to point out some of the critical school housing problems and issues which faced the country. Invited to attend this meeting were outstanding leaders representing national and regional school planning groups, college professors who teach in the area of school plant planning, architects, State school plant specialists, manufacturers and distributors of school furniture and equipment, school boards associations, school administrators and research organizations and foundations. These leaders recommended Office research on school safety, planning and designing school plants to fit the needs of school and community, efficient school plant management procedures, and requirements for school furniture and equipment.

Other recommendations growing out of this conference were: more services, including more field services, to meet the needs of State and local school systems; an expansion of the present research program to include assistance that may be available through colleges and universities and philanthropic organizations; and wider dissemination of new ideas and practices through an expanded publications program.

STATE SCHOOL ADMINISTRATION

Much Office of Education research and study is designed to assist State officials in the development of practical solutions to educational problems confronting State governments. The cooperative relationships in this area that have developed over the years between the Office and State departments of education have proved to be particularly rewarding. This is especially important since State governments are looking to their departments of education for greater leadership and services in the field of public education.

The Office compiles, develops, analyzes, and distributes information on State structure and organization of public education and on functions of State educational agencies. Thus each State may follow the efforts being made in other States to improve State school administration. When educational problems are nationally significant, the Office makes its resources available to coordinate the efforts of States in cooperatively working toward solutions. Developments of this scope during fiscal 1959 are summarized below.

Special attention was focused upon educational problems involving State programs of educational research, State accreditation and approval of public schools at the elementary and secondary level, and State pupil transportation programs. Work continued on the functional analysis of the powers and duties of State departments of education and other State educational agencies.

It is becoming increasingly clear that means of coordinating the educational research efforts of public agencies must be found before the full benefits of research findings can be realized. Preliminary investigations were conducted for the purpose of perfecting a study design for attacking this problem. As a first step, a project dealing with the research resources and activities of State departments of education was begun during the year.

State departments of education are confronted by many problems concerning policies, practices, and procedures in the approval and accreditation of the public schools under their supervision. The richest source of information—the experience of other State departments—has not yet been fully tapped. At the request of the Study Commission of the Council of Chief State School Officers, the Office began a survey of this area which will lead to desirable improvements

in State approval and accreditation programs. Progress continued in establishing and maintaining a solid basis for comparable educational information among States and among local school districts. In the developmental phase, the year saw the completion of two major projects. The first of these produced the handbook *Property Accounting for Local and State School Systems*, which has been officially approved by a number of national educational associations as the basic guide for property accounting for local and State school systems in the United States. This handbook provides the tools for recording and reporting comparable information about school land, buildings, and equipment.

The second project produced the handbook *Financial Accounting for School Activities*. Concerned with the accounting procedures for funds within individual schools for school activities such as athletics and school clubs, this handbook provides a basis for deriving comparable data on the millions of dollars spent annually in such activities.

In addition, a new project dealing with personnel accounting for local and State school systems was initiated. The purpose of this endeavor is to develop a personnel accounting handbook which will provide the foundation for comparable information about pupil personnel and employed staff of the Nation's schools. Like the projects summarized above, this one will also be conducted in cooperation with a number of national educational associations.

In the implementation phase, States continued to put into practice standards contained in the completed handbooks in the "Records and Reports Series." Funds provided under title X of the NDEA made it possible during fiscal 1959 for many States to begin the improvement of their statistical services in line with the standards contained in these handbooks. For example, a number of additional States revised their school district financial accounting systems to incorporate the standard accounts and terminology of the handbook *Financial Accounting for Local and State School Systems*, published by the Office in 1957. See the section of this report on NDEA activities under title X for additional details.

LOCAL SCHOOL SYSTEMS

A study during the year analyzed State laws relating to administrative, supervisory, and other specialized personnel services necessary to improve school program quality and school system efficiency. In cooperation with the American Association of School Administrators, the Office launched a project to extend over a period of several years which will deal with problems of determining the administrative and special service staff requirements and organization necessary for maintaining good quality school programs. The Office of Education will make the basic studies, which will be used by the AASA in preparing

policy documents for the guidance of local school system administrators. After a jointly sponsored conference of leading superintendents of representative school systems, held to determine top priority problems, plans were developed for studies to be made by the Office in fiscal 1960.

The services of the Office in improving local school board effectiveness were also expanded. A study of school board policy manuals was completed and will serve as a guide to school boards and superintendents in developing written statements of policies for their systems. In cooperation with the National School Boards Association, a nationwide survey of school board organization, membership, and practices was undertaken. This survey was designed to provide basic information needed by State and local school officials and school board associations in their efforts to improve school board effectiveness.

During the year a study was begun and virtually completed which analyzed administrative handbooks and personnel manuals developed by school systems for teachers and other employees. This study was designed to provide a guide for school administrators in developing handbooks or personnel manuals for teachers and other employees.

ELEMENTARY EDUCATION

Typical of its leadership role on all levels of education, the Office of Education convened a conference this year for supervisors of elementary education in large cities. Coming from 70 cities in 31 States and the District of Columbia, and representing approximately 75 percent of the elementary school population and their teachers, these supervisors discussed common problems that face elementary educators today. The discussions, it was believed, constituted a cross section of opinion on elementary school problems during fiscal 1959. Highlights of the discussions carried on at this conference follow:

(1) *Recruitment, orientation, and inservice growth.*—A major problem in recruitment is knowing what will attract qualified teachers to a school system. ● Teachers need help throughout the first year, not just in the opening weeks of school. ● The major factor in inservice growth of teachers, principals, and supervisors is human relations.

(2) *Curriculum problems.*—Parents want evidence that schools are teaching fundamentals. ● School people want to maintain balance in the curriculum so that children will have many opportunities to develop curiosity, creativity, and resourcefulness in the arts, social studies, and the humanities, as well as in science and mathematics. ● The need for better articulation between all levels of the school, in providing for continuity in opportunity and learning, has resulted in curriculum planning on the K–12 basis. ● The range of difference in ability within each class caused some schools to experiment with grouping by levels of instruction in such areas as reading and mathematics. ● There was not complete agreement that foreign languages should be offered in all elementary schools. It was felt that the foreign-language program (as any other innovation) required justification in terms of goals, evaluative

criteria, usefulness of language chosen, psychological rightness of teaching methods, and omissions from the existing school program in order to make room. ● Instruction by television increased during the year. While TV education offered more children experiences in science, art, and foreign languages, for example, there was continuing concern that TV education might not afford children the opportunity to develop critical thinking skills and creative talents.

(3) *Instructional materials and methods.*—School leaders should always be willing to take a fresh look at their elementary schools, seeking ways to improve instruction through experimenting, trying new ideas, keeping open minds. ● Teachers, especially new teachers, want specific guides and teaching aids, within a flexible program.

(4) *Gifted children.*—Smaller classes, it was felt, would give teachers more time to stimulate talented boys and girls, and rich materials would provide greater opportunity to guide them. ● Although gifted children should be encouraged to do all they can, there is always danger in driving or pushing them.

(5) *Administrative and organizational practices and policies.*—There is need for research in school and class organization to determine the relative value of small-group and large-group instruction, the self-contained classroom, and departmentalization. School people should avoid selecting one plan or another without giving proper thought or study to the problems involved. Staff members should be willing to experiment with new ideas. ● Every promotion should be considered on its own merits and should be determined by what is best for the child.

(6) *Formalization, standardization, uniformity.*—Pressures are being exerted which may cause regressive practices in our schools—for example, more emphasis on standardized testing and the move to introduce more formalized education earlier. ● School leaders must stand for the things that are right for children, helping parents and coworkers in administrative positions, and must understand child growth and development. ● Because of factors concerning the physical development of young children, the kindergarten is not the place or time to begin the systematic teaching of reading.

(7) *The work of supervisors and directors of elementary education.*—The work of administrative leaders can be strengthened as they gain the skills and understandings needed to work with others. Supervision at its best is the work of helping the teacher. ● There is need to strengthen the position of the elementary principal as a key person in supervision.

(8) *Evaluating the instructional program and pupil progress.*—The quality of education is a live issue. Some cities plan surveys to stimulate evaluation of the school program and to determine steps needed for improvement. ● It is believed that surveys by educators and lay persons within the school district are more helpful than surveys by outside teams.

Studies and Research

Office staff conducted studies and research projects during the fiscal year on a number of the problems aforementioned. Among these were (1) a study on elementary school organization and administration, (2) a project attempting to bring together the research related to various plans of elementary school organization, and (3) a compilation of data for 1958–59 on kindergarten enrollment in city school systems.

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In an endeavor to help elementary school educators decide how best to educate their talented children, the staff compiled information around four major questions: (1) How can the school, the home, and the community work together to provide needed educational opportunities for above average children? (2) What means shall be used to identify children with special talents? (3) Once these children have been identified, what plan shall be used to insure educational opportunities for their development? and (4) How can programs for these children be evaluated? A more detailed study on educational programs for talented children in elementary schools was in progress.

Physical Education in Urban Elementary Schools, an Office curriculum study in the area of physical education published in 1959, provided information on the classroom teacher and the special teacher of physical education, policies and procedures in the administration of the physical education program, organization and content of the program, and types of equipment and facilities provided for children. This study presented data gathered from school systems over the entire Nation. Other curriculum studies underway included one on early elementary education, another on science in the elementary schools, and a third on social studies in the elementary schools.

Throughout the Nation attempts were being made to solve the problems confronting elementary education. These problems were dealt with in various ways in programs and meetings of professional and lay organizations, in the Office of Education, and in the various State and local educational agencies. Undoubtedly, as judgments regarding school organization and programs are based increasingly on the findings of studies and research and the experience of leaders in education and related professions, children will be benefitted.

SECONDARY EDUCATION

The concern of the people that their high schools keep pace with the rapidly changing times was expressed in several ways in the past year, each of which had its effect upon the schools and upon the activities of secondary education specialists in the Office of Education.

Parents as well as other citizens were interested as never before in the quality of the secondary school, which was attended by approximately 80 percent of all the boys and girls between 14 and 17 years of age, and from which more than 60 out of every 100 youth of the appropriate age group are graduated each year. The National Defense Education Act of 1958 was one very tangible expression of the desire on the part of the public to improve the education of children.

A number of educational foundations, advisory committees, and professional organizations published statements on the need to improve, and suggested ways for improving, American education. All

of these statements were analyzed by Office specialists to discover implications involving Office of Education programs.

The Emphasis: Science, Mathematics, and Modern Foreign Languages.—This year saw the development of increased interest in the field of science, mathematics, and modern foreign languages, especially as the study of these subjects concerned the academically talented. Office staff members made firsthand observations of the changes taking place in various experimental centers where new curriculums, methods of teaching, and inservice professional education programs were being devised and tested.

In the fields of mathematics and science, studies were conducted of offerings and enrollments and of the status of mathematics and science education, covering such topics as facilities and equipment, the teacher, course content, and methods of instruction. *A Review of Research in Science Education* was prepared in cooperation with the National Association for Research in Science Teaching. In addition to these studies, a series of circulars, "Aids for Teaching Science and Mathematics," was developed.

Modern space age developments have had their effect on the secondary education program. This was evidenced by pupil interest in the sciences, including mathematics, and in aero-space materials, as well as in such school-centered activities as rocketry clubs, model airplane clubs, electronics clubs, and radio-control clubs. There were important implications, too, for other curriculum areas such as social studies, English, and mathematics. In addition to preparing and distributing materials to the schools on this and allied subjects, several staff members participated in the World Congress of Flight and in the National Aviation Education Council Conference.

As a result of the added interest in the study of foreign languages, there was evidence of longer sequences of foreign language study in the secondary schools, newer methods of developing the language skills, and a desire on the part of teachers for retraining as well as further training. The Office made every effort to assist in meeting these new needs and problems. It provided the services of a consultant for a major 1958–59 project of the National Association of Secondary-School Principals. A publication entitled *Modern Foreign Languages in the Comprehensive Secondary School*, which grew out of this project, is exerting an important influence on secondary modern foreign-language programs.

A project was in progress to determine from State departments of education the status of foreign languages in the secondary schools—enrollment, length of sequences, and languages taught. Another study begun in 1959 was designed to obtain more detailed information on the status of foreign-language education in individ-

ual high schools. These studies will furnish a means of comparison with past and future findings as the language scene continues to change.

One of the most significant developments during the past year was the growing interest in the academically talented—those ranking in the top 15 or 20 percent in the high school population. Great emphasis was placed upon identifying and educating these individuals more effectively. There was a marked increase in ability grouping and in programs of enrichment for, and acceleration of, these pupils. Several high schools offered advanced courses for which the talented could receive college credit. There was continuing demand for the bibliography, *The Education of the Able Student*, published by the Office in 1958.

The Trend: "Tightening Up" the School Program.—Technological advances and existing economic, cultural, and political problems have so increased the amount of learning needed today that school people and the public alike are questioning the adequacy of the length of the school day and of the school year. In some systems an extension of school time has been effected. The all-year school, sometimes referred to as the four-quarter plan, which was tried in some school systems a generation ago, and subsequently abandoned, has received renewed attention in several States and city school systems. In the light of this interest the Office issued a summary, with an annotated bibliography, bringing together information about the earlier experimental programs entitled *The All-Year School.*

The regularly recurring study *Statistics of Public Secondary Day Schools, 1958–59* was underway. This will reveal trends in type, size, and organization among the Nation's 26,000 public high schools.

There is a trend to increase high school requirements in general and the requirements in mathematics and science in particular. Several State departments of education have increased the total number of units required for graduation beyond the prevailing 16. Some have either increased or added a requirement in mathematics and science to the subjects all pupils must take for high school graduation. An Office of Education study of high school curriculum organization and graduation requirements in 50 large cities revealed the typical requirement to be 4 years of English, 2 or 3 years of social studies, and at least 1 year each of science and mathematics. Nearly a third of the cities required 2 years of mathematics for graduation and a third required 2 years of science.

A rather comprehensive study was being conducted by the Office to determine what high school programs were carried by 1957–58 graduates of varying abilities. Programs of pupils enrolled in high schools of different sizes were being studied separately.

The Goal: A Balanced Educational Program.—Throughout the school year 1958–59, certain educational leaders voiced with increasing emphasis the need for a balanced program to improve the quality of educational offerings for all youth in secondary schools. These leaders were concerned that certain fundamental areas of learning were being stressed disproportionately at the risk of neglecting, if not excluding, certain other fundamental areas of general education.

This would seem to be a concomitant of the current public interest in specific areas of learning felt to be neglected formerly, rather than a deliberate effort to deemphasize other equally important areas.

The organization of learning experiences for junior high school pupils, in particular, has received increasing attention since the end of World War II. One such form of organization cuts across the traditional boundaries of subject matter and is known by such terms as block-time, core, or common learnings. Classes meet together for a block of time of two or more periods and combine or replace subjects required of all pupils, such as language arts and social studies. *Block-Time Classes and the Core Program in the Junior High School*, an Office study published this year, revealed that among junior high schools with enrollments of 500 or more, nearly half had such classes. The study further revealed that block-time classes in the junior high school had increased 100 percent since 1949, when the last previous study was made.

Improved instruction in the use of the English language, which is basic to the study of all academic subjects, is a primary goal of the Office. In accordance with this objective, and the need to keep informed concerning the nature of the secondary school curriculum, the Office published *English Language Arts in American High Schools* this year. This bulletin analyzed the content of 256 local courses of study and 29 State courses in English and noted the changes which have taken place in high school English since 1932. The published report is being used throughout the United States by committees of English teachers wishing to improve their own English programs or to develop new courses of study.

Among the new developments discovered through this study of high school English programs were these: (1) more instruction given in reading comprehension; (2) literature about people in other parts of the world taught in grades 7 through 12; (3) instruction in speaking and writing related closely to the needs of youth in school, in the home, and in the community; (4) instruction given to upgrade pupils' selection and appreciation of mass media; (5) the nature of the English language and its power for communication taught through units on elementary semantics and propaganda. This study also revealed the need for sequential programs in English from elementary

school through high school and into college, especially in the teaching of grammar and usage.

Under the stimulus of the President's Council on Youth Fitness, school leaders and other citizens intensified efforts to fulfill the schools' responsibilities regarding the fitness of American youth. Particular attention was given to finding ways of strengthening and extending school programs of health education, physical education, athletics, and recreation. The Office cosponsored with the American Association for Health, Physical Education, and Recreation the National Conference on Fitness of Secondary School Youth. A report of the conference was published by the association.

The practical arts activities offered in industrial arts courses are essential to develop a balanced educational program and to aid students in understanding American technology. During the year an interest in improving the industrial arts curriculum was stimulated by the dissemination of *State Curriculum Guides for Industrial Arts*, the first Office report on a study of industrial arts course content.

A study and personal observation of Soviet schools by a staff member revealed that Soviet educators for some years have believed strongly in the "practical arts" for their educative values and are now including this required phase of instruction in their general education schools.

ADULT EDUCATION

During the past year increased emphasis was given adult education through its recognition by certain important national organizations and special events. Among these were The President's Science Advisory Committee, the National Education Association, the National School Boards Association, the American Association of School Administrators, and the American Education Week program. The American Association of School Administrators, in cooperation with the National Association of Public School Adult Educators and the U.S. Office of Education, developed four adult education programs for its annual meeting and made plans for yearly emphasis on adult education.

In enacting Public Law 85–908 (September 2, 1958) the 85th Congress set in motion a national undertaking directed toward the needs of older persons. The Act, known as the "White House Conference on Aging Act," states in the declaration of policy that the Federal Government shall work jointly with the States and their citizens to develop recommendations and plans for action in setting up adult education programs. In the pursuance of this and other purposes stated in the Act, many adult education agencies and groups were to be involved at national, State, and local levels.

In 1958–59 increased interest was shown in the revitalization of literacy and Americanization programs. Of particular importance

were the continued activity of the National Commission for Adult Literacy; the growing use of mass media in literacy education programs, such as the Baylor University Literacy Project and the Memphis TV Project; the organization of a National Foundation for Literacy Education; and the beginning effort of the Bureau of Immigration and Naturalization to revise and consolidate its educational materials used in the Americanization and citizenship education program. In line with this trend, the General Federation of Women's Clubs stimulated literacy classes at the local level through its member clubs. In recognition of the importance of this area, the Office of Education in 1958 appointed a Specialist in Fundamental and Literacy Education to conduct studies and provide leadership.

The year 1958–59 saw a growing interest in fundamental education programs for urban renewal and redevelopment. These educational programs—which were already underway in several major American cities, including Washington, Baltimore, and Chicago—have aimed at providing orientation and training for residents who are being displaced from slum or blighted areas.

For a number of years there has been an increasing concern among professional educators for the field of adult education. Approximately 15 universities in the United States now provide programs leading to a master's or doctor's degree in adult education; and 145 provide one or more courses in the field. Inservice training of local administrators and teachers has become commonplace, and at least 20 State departments of education have developed or are in the process of developing statewide professional educational experiences for local teachers, supervisors, and educational administrators.

An organization of professors of adult education received foundation support to evaluate present curriculum offerings and to develop new directions in graduate-level professional training for adult educators.

Five additional States during the past year, established a division of adult education within their departments of education, and selected a chief adult education officer to head this division.

During fiscal 1959 the Office began the first nationwide survey of adult education activities in public schools. A scientific sampling plan of local school districts of various sizes in all parts of the country will be used in gathering data such as enrollments and kinds of educational activities.

EXCEPTIONAL CHILDREN

The fiscal year 1959 was a year of unusual progress in the education of exceptional children. While interest was on all types, the focus was still on the mentally retarded. For the first time, Federal legislation specifically in the areas of special education was passed. Because of

the serious shortage of teachers for the mentally retarded, the Congress enacted Public Law 85–926, designed "to encourage expansion of teaching in the education of mentally retarded children through grants to institutions of higher learning and to State educational agencies." While the improvement of classroom teaching is the ultimate purpose of this law, the first objective is necessarily the training of promising persons for teacher preparation roles. During the year, the Office staff and representative people in various parts of the Nation planned the program to be implemented under this law.

The Office engaged in a cooperative project on mental retardation with the Office of Vocational Rehabilitation and the American Association on Mental Deficiency. The project resulted in the publication *Preparation of Mentally Retarded Youth for Gainful Employment.*

Nationwide interest continued in the attempt to elevate professional standards for personnel in special education. The Office of Education, in cooperation with national leaders, completed the bulletin *Professional Preparation of Teachers of Exceptional Children*, which is a summary of reports from a broad study extending over a number of years. *Teachers of Children Who Are Hard of Hearing*, a report based on the same study, went to press during the year. A bulletin, *Children With Speech and Hearing Impairment*, describing what schools can do for such children, was released. Data for the recurring study on State certification requirements for teachers of exceptional children were collected. Office staff were preparing a review of research on the preparation of teachers of exceptional children for an issue of the *Review of Educational Research.* The most extensive listing in the review is the Office of Education series of studies.

Cooperative activities for exceptional children during 1959 included 3 conferences called by the Commissioner: 1 with State directors of special education on current national and statewide issues; another with local directors of special education on program development; and a third with about 40 representatives of 23 specialized national organizations interested in the education of exceptional children.

The year 1959 was marked by the passage of new State and Federal legislation for the further education of exceptional children. Laws passed in New York and New Jersey, for instance, created new possibilities and defined more clearly the responsibilities of public schools toward emotionally disturbed children. A current study on education for exceptional children showed a renewed interest in program planning.

While the Office of Education through the years has worked with special educators from other parts of the world, recently there has been an increased demand for consultation, information, and more definitive planning on an international basis. The Office of Education

held a number of conferences with foreign educators during the fiscal year. One of the most helpful associations was a visit of the head of the Special Services Branch of the British Ministry of Education.

Several conferences were being cooperatively planned for the coming year. These included the International Bureau of Education Conference; the Eighth World Congress of the International Society for the Welfare of Cripples; and the Seminar on Mental Retardation.

CIVIL DEFENSE EDUCATION PROGRAM

The United States today is faced with the major problem of providing civil defense against manmade and natural, wartime and peacetime disasters. Many, however, lulled into inaction by an inherent sense of security or by apathy, still believe either that distance provides defense or that nothing adequate can be accomplished by civil defense measures.

In the National Plan for Civil Defense and Defense Mobilization, the general public has been assigned specific responsibility for action in time of disaster. Knowledge acquired through training is the only basis on which individual citizens can take effective action. This knowledge can best be made available through programs of organized survival training in the Nation's schools.

In January of 1959 an agreement was signed between the Office of Civil and Defense Mobilization and the Department of Health, Education, and Welfare. Under this plan the Office of Education established the Civil Defense Adult Education Program and agreed to direct and coordinate the teaching of civil defense principles through existing State adult education facilities. Local adult educators were to be trained to teach individual, family, and community protection and survival. In implementing this program, the Office had negotiated contracts by the end of the fiscal year with State departments of education of Florida, Kentucky, Minnesota, and Texas. In close cooperation with national, State, and local agencies, the Office directs the overall development and coordination of the program, serves as consultant, provides materials and services, and aids in publicizing information. Plans are being made for expansion into additional States.

School Assistance in Federally Affected Areas

Federal financial assistance is authorized by the provisions of Public Laws 874 and 815, as amended, to school districts on which activities of the Federal Government have placed serious financial burdens. Under these companion laws,[1] the Federal Government pays a portion

[1] Enacted by the 81st Cong. in September 1950, Public Law 874 provides assistance for current operating expenses and Public Law 815 provides assistance for the construction of school facilities.

of the cost of the education of children who reside on, and/or reside with a parent employed on, tax-exempt Federal property, such as atomic energy and military installations, flood control and reclamation projects, Indian reservations, and national parks and forests. In addition, Federal assistance is authorized where Federal contracts with private industrial firms cause such a sudden and substantial increase in school enrollment, that affected districts need additional funds to meet budgetary needs.

For the fiscal year 1959, approximately $150 million has been or will be paid to school districts under the provisions of Public Law 874, representing payments for the attendance of approximately 171,200 children who reside on Federal property with a parent employed on Federal property, and for 1,217,000 children who either reside on Federal property or reside with a parent employed on Federal property. This is approximately an 18-percent increase over the amounts paid on this program the preceding fiscal year and a 15-percent increase over the preceding year in the total number of children for whom payments were made. A total of 3,762 school districts in the 49 States, Hawaii, Puerto Rico, Wake Island, Guam, and the Virgin Islands were eligible for program assistance during the year. These school districts had an estimated total enrollment of 9.5 million children, or about one-fourth of the enrollment of all children attending public elementary and secondary schools. The number of eligible participating school districts has increased 221 percent since 1951.

The table below presents significant figures for the 9 years the program authorized by Public Law 874 has been in operation:

Fiscal year	Number of eligible applicants	Net entitlements of applicant districts—all sections	Total current expenditures of applicant districts	Percent of total current expenditures financed by Public Law 874 funds
1951	1,172	$29,686,018	$520,370,000	5.6
1952	1,763	47,814,282	825,926,541	5.8
1953	2,212	57,696,592	1,040,424,071	5.5
1954	2,524	71,860,087	1,284,960,000	5.6
1955	2,683	75,276,843	1,450,700,000	5.2
1956	2,859	85,664,973	1,754,530,000	4.9
1957	3,318	111,352,432	2,156,450,000	5.2
1958	3,327	122,456,546	2,578,486,000	4.8
1959 [1]	3,762	167,390,914	3,083,668,609	5.1

[1] Estimated.

The volume of school construction approved under Public Law 815 continued at about the same level in fiscal year 1959 as in each of the past several years. During the year $86,924,140 was reserved for 407 projects under all sections of the law. One of the principal reasons for the continued high level of school construction assistance is the construction of family housing units for military personnel under

title VIII of the National Housing Act—the Capehart Housing Program.

Payments made during the year were for increases in school enrollment of federally connected children in the 2-year increase period, from July 1, 1957, to June 30, 1959, or from July 1, 1958, to June 30, 1960.

From 1950 through fiscal 1959, a total of $901,450,000 had been appropriated by the Congress to carry out the provisions of Public Law 815. This amount included $75,400,000 appropriated in fiscal year 1959 for school enrollment increases expected to occur through the 1960 fiscal year. Of the total appropriated, $895,725,000 was used for project construction and $5,719,000 for services provided by other Federal agencies.

When the federally aided projects included under existing authorizations are completed, some 1,687 new elementary and secondary schools and 2,831 additions to elementary and secondary schools will have been provided, which will total approximately 48,300 classrooms and related facilities to house an estimated 1,403,041 children. This total includes 220 projects which will provide an estimated 1,260 classrooms for approximately 36,000 children, mostly Indian children, living on Indian reservation land.

LEGISLATION

The assistance program is on a permanent basis for children who live on Federal property with a parent employed on Federal property and children for whom the Federal Government pays the total educational costs, whereas assistance for other categories of children currently provided under the Acts terminates June 30, 1961. Included in these categories are children who live with parents in private, taxable homes, but whose parents are employed on Federal property; and those who live with parents employed in private industrial firms whose Federal contracts have caused a sudden and substantial increase in school enrollment.

Higher Education

During the past year, much work and interest have been centered on activities authorized by the National Defense Education Act. In order to implement the provisions related to higher education, the Office of Education established the Financial Aid Branch in the Division of Higher Education.

Problems of mounting complexity and increasing severity which face administrators, boards, and others concerned with higher education, have brought numerous requests for assistance and information to the Office of Education during fiscal 1959.

During the year, Office staff members participated in the organization and planning of the first American Seminar in the Humanities. This seminar was the first major effort to pool conference resources on higher education, business and industry, and government and international organizations around the common theme of the humanities. The topic of the 1959 seminar, first of an annual series, was promotion of intercultural understanding as a step toward international peace.

Many problems reported as acute in the 1958 annual report have continued into 1959. For example, enrollments for 1958–59 in institutions of higher education were approximately 210,000 greater than in 1957–58 (see table 1). Instead of an estimated minimum of about 30,000 new college teachers needed for this influx of students and for replacement of teachers lost through retirement, death, or transfer to another occupation, only about 13,400 were actually recruited. Estimates of the number of new full-time college teachers needed during the next 10 years have varied from about 300,000 to more than 500,000. Slightly less than one-fourth (23.8 percent) of the new full-time college teachers employed in degree-granting institutions in 1958–59 held the doctor's degree—a proportion which has remained about the same since 1956–57 but which is significantly lower than in preceding years (26.7 percent in 1955–56, 28.4 percent in 1954–55, and 31.4 percent in 1953–54). Of the approximately 9,000 persons who completed earned doctoral degrees in 1958–59, less than one-half entered the teaching field immediately.

A number of provisions of the National Defense Education Act are pointed toward the critical need for college teachers. Title IV seeks to increase the supply of college and university teachers by providing fellowships for graduate study and by increasing the breadth of graduate programs. Title VI provides for foreign-language fellowships for graduate students preparing for college teaching.

STUDIES AND SURVEYS

To furnish background statistics and other data which are necessary to solve the many problems issuing from these and other conditions in the area of higher education, the Office of Education conducted a number of important studies and surveys during the past fiscal year. Some of these are new studies, some are recurring or continuing, and are concerned with the following areas: organization and administration, legislation, educational programs, facilities, and general studies. Short summaries of the most important studies follow.

Organization and administration.—A study of State boards reviews and analyzes the structural organization and functions of these boards in relation to the responsibility and control exercised over higher education institutions within the State. ● Criteria providing a guide on the feasibility of establishing

2-year colleges are currently being studied. Data on higher education planning and management provide an annual study of higher education current-operations data such as salaries, tuition, room and board rates, buildings completed. ● A survey of endowment investments contains information concerning administrative practices of 200 colleges and universities in handling endowment investments. ● Studies of institutional internal organization provide information on plans of higher education institutions for dealing with increased enrollments. ● Factors related to application, admission, registration, and persistence in college were studied to discover background and casual relationships to these college vital statistics as revealed in publicly controlled and private institutions. ● A preliminary report on "College and University Faculties: Recent Personnel and Instructional Practices," appeared in the November 1958 issue of *Higher Education.* The final published report will appear in the summer of 1960.

Legislation.—A study of State legislative measures related to higher education, enacted during fiscal year 1958, discloses that 13 States and Puerto Rico authorized new or continuing surveys or were planning expanded programs of higher education. Eighteen States, Puerto Rico, and Guam enacted legislation pertaining to bond issues, building planning and construction, and capital outlay appropriations. Eight States showed concern about growing enrollments in higher education by considering measures for the expansion of existing higher education institutions or for the creation of new ones.

Educational programs.—A survey of college enrollment and degrees in agriculture gives department enrollments and number of degrees granted in various agricultural curriculums. A second study examines data from admission and enrollment forms of land-grant colleges to forecast potentialities of students enrolled. ● A survey designed to analyze trends in engineering, especially in curriculum development, for the period 1949–59 is underway. Completed during the fiscal year is the annual study of organized occupational curriculums and of engineering enrollments and degrees. ● A study for the period 1948–58 of the number of earned degrees in the humanities in relation to those in social science and the natural sciences is currently being conducted. ● An analysis of degree programs in general social sciences based on a sampling of 312 institutions has just been completed. The study indicated that such programs are designed primarily for students who are, or expect to become, social science teachers. ● A survey is underway to ascertain recent changes in curriculum and course content in degree-granting institutions.

Facilities.—The Facilities Inventory Survey is a five-part study of higher education facilities to provide information for institutional management and planning. The key unit on physical facilities is now being prepared. This unit will contain data on space devoted to institutional programs, and the age, condition, and type of construction of each building on the campuses. Earlier studies have collected similar data for the period 1951–55 and data on planned plant expansion to 1970. Future studies will compare actual needs at the time with previously made plans and will report on new campuses.

General studies.—Recommendations growing out of a survey of the public higher educational system of North Dakota, conducted by the Office of Education during the year, were promptly adopted into the State's legislative program. Several have been put into operation, and others are expected to be in effect soon. The success of this survey brought requests from a number of other States for similar surveys. ● A bibliography of articles and other printed references dealing with college and university administration over the past 10 years is now being compiled by the Office. ● An analysis is also being made of recent State and interinstitutional studies of higher education needs. The

analysis of 38 separate higher education studies, begun or completed since 1955 in 24 States, shows that 23 of these studies are concerned with 5 or more major problem areas. This denotes the examination of needs on a comprehensive rather than a narrow scale.

A series of articles on executive development programs in collegiate schools of business appeared in *Higher Education* during the fiscal year. A monthly newsletter, *Business and Public Administration Notes*, serves as communication between the Office of Education and leaders in public administration throughout the Nation. Requests for information and advisory service reflect the increasing importance attached to the business and public administration area of higher education. Two significant publications, *Teaching as a Career* and *Teaching Opportunities*, are designed to stimulate and direct capable men and women toward careers in education, and to acquaint teachers and others with job opportunities in the United States and foreign countries.

The Clearinghouse of Studies on Higher Education, a program begun in fiscal 1959, was instituted by the Office of Education to collect information on studies made by or for individual institutions and to provide a source from which the information thus collected might be procured. During the past year the Clearinghouse has extended itself beyond bibliographic function to include consultative services, by making its files available to visitors from educational communities and by answering inquiries.

The Clearinghouse operation includes the publication of *Reporter*, *Special Reports*, and *Case Book*. *Reporter* is a compilation of basic bibliographical data on each study in the files, together with other pertinent information. *Case Book* reports significant higher educational programs recently instituted, and *Special Reports* performs a similar function for more general programs and developments. When the information in the Clearinghouse files is analyzed, certain implications for the future may be seen. These are condensed and issued as trend studies at intervals throughout the year.

LAND-GRANT COLLEGES

For the year ending June 30, 1959, the Office administered a total of $5,051,500 to land-grant colleges and universities. The Office responsibility in this program is to certify that each State and outlying part of the United States is entitled to receive its share of the annual appropriation and to certify the amount it is entitled to receive. See table 3, column 2, for distribution of funds by States.

Vocational Education

The program of vocational education continued to expand in fiscal 1959. All States and other areas eligible for Federal funds for use in Federal-State vocational education endeavor were operating programs. Total expenditures of Federal-State-local funds were in excess of $200 million—an alltime high; enrollments of both youth and adults exceeded 3.75 million. Training of highly skilled technicians under the National Defense Education Act was begun.

AGRICULTURAL EDUCATION

Agricultural education leaders, including Office of Education specialists, met in Chicago for a 4-day planning conference to discuss

agricultural education in the light of changing social, technological, and economic conditions. Much information and many ideas and plans which were developed at this conference will be incorporated in new State plans for programs of agricultural education.

Office of Education specialists, in cooperation with the American Vocational Association, began a nationwide study of the characteristics of public high school vocational agriculture programs which have proved successful in instructing out-of-school young men who are faced with increasingly difficult farm problems. The first phase of the study was completed in 1958, and was used to develop criteria for an experimental study carried on in 280 rural high schools which voluntarily adapted their program of instruction to meet the new standards. A 3-year experiment, undertaken in these schools, is expected to result in a greatly improved program of study.

During the year, Office staff members worked with State agencies to promote an improved curriculum for teachers in vocational agriculture. The staff emphasized that the curriculum should be based on a broad and thorough foundation of instruction in general education, natural sciences, specialized and general fields of agriculture, and educational methods, including practice teaching and participation in a wide range of agricultural activities and organizations.

In most States, inservice training, often with graduate credit, was provided at colleges and experiment stations through short, intense technical agricultural courses in the areas of farm mechanics, farm management, and other areas suited to the teachers' needs. There was also demand for courses in professional education areas.

DISTRIBUTIVE EDUCATION

The importance of education in the field of distribution is appreciated when it is understood that a balanced distribution is essential to a healthy economy. Educational programs in this field encourage research to improve distributive techniques and foster an understanding of the social and economic responsibility of those engaged in distribution.

The distributive education program is based on a Federal-State cooperative relationship. During the year, State representatives assisted Office specialists in conducting three significant studies to be published in fiscal 1960: (1) *Role of Teacher Education in Distributive Education*, (2) *Supervision for the Improvement of Instruction in Distributive Education*, (3) *A Study of Curriculum Development in the Distributive Education High School Cooperative Program.*

Distributive education programs have been most successful in cities of 15,000 to 250,000 population. Some metropolitan areas, however, have not profited as have others. In order to assist administrators in

these metropolitan areas in serving educational needs in distribution, the Office, with the cooperation of a major university, initiated a nationwide study to determine successful practices in distributive education in metropolitan areas.

Business groups cooperated with national, State, and local agencies in initiating projects for improvement of educational programs in distribution. These projects were so planned that they could readily be put into effect at local community levels. Some of the projects initiated during the year involved national organizations which worked through their area, State, or local representatives to cooperate with leaders in distributive education.

Backed by Government concern for small business, the distributive education program assumed a major role in the development of management courses for small businessmen. A bulletin entitled *Management Training for Small Businesses* was prepared and sent to distributive education personnel throughout the Nation. Reports from the States, showing increased enrollment in management programs for small businessmen, indicated extensive use of this bulletin.

TRADE AND INDUSTRIAL EDUCATION

The impact of recent economic, sociological, and technological changes has created a constantly growing demand for more skilled manpower. Untapped reservoirs are being sought; expanded training programs are being set up. A significant trend is the continuing increase in enrollments in training courses and in participation by girls and women—not only in the traditional women's fields but also in the newer occupations and those formerly open only to men.

The importance of advanced training programs for employed women is seen in the increase in 1959 in number of women enrolled in supervisory training programs and in extension classes in federally reimbursed trade and industrial education. In the extension classes more women than men were enrolled.

Many States have accelerated the growth of their supervisory personnel development programs in response to a 22-percent increased enrollment in this area over a 3-year period ending in 1957–58. State supervisors of trade and industrial education and Office of Education staff are planning interregional meetings to speed the preparation of competent teachers for training of key supervisory personnel in industrial establishments.

A more effective school-shop safety program, as a contribution to occupational safety, emerged from an Office-sponsored conference, which was attended by State personnel and representatives of industrial organizations. Another U.S. Office of Education conference, attended by State educators in trade and industrial education, sought ways of making adequate instructional materials available. The

Office will continue to cooperate with the National Professional Instructional Materials Committee, named at the Conference to coordinate instructional-materials activities among States, industries, and labor organizations.

More than 200 State supervisors, teacher trainers, and local directors participated in the National Conference on Trade and Industrial Education held at Kansas City in the spring of 1959. Office staff members participated in discussions which led to the development of long-range cooperative plans involving instructional materials, leadership training, supervisory training and research.

PRACTICAL NURSING

Practical nurse education, including preparatory programs for dental and medical assistants and nursing personnel in allied health occupations, continued to grow in 1959. Most States held annual workshops for instructors and supervisors, and some held more frequent conferences for smaller area groups. The new Office of Education bulletin, *Guides for Developing Curricula for the Education of Practical Nurses*, proved helpful as Office staff met with State personnel during these meetings to discuss ways of improving the curriculum.

As a result of a joint Office of Education-State project, the Office published a list of schools offering approved practical nurse programs. The list will be useful to guidance counselors.

HOME ECONOMICS

In addition to the problems faced by educators in general, home economics educators are faced with a specific problem—lack of public understanding of the importance of the school's program in home economics to the welfare of the Nation's families in solving vital problems of physical and social living.

As home economics curriculum builders assessed homemaking needs at workshops, in statewide committees, and in local schools during 1959, they kept in mind recent social, educational, and economic developments which have strongly affected family life—the mobile family, earlier marriages, working mothers, population trends, new light on human growth and learning, and changing needs of local communities. Against a background of such factors, Office of Education staff members cooperated at regional conferences with State personnel and other groups in studying the following problems: the placement of courses and achievements to be sought at junior and senior high school level, class size and teacher-pupil ratio, pupil differences, programs for the talented, increasing demands on teachers, shortage of qualified teachers, and teacher education programs. Attention was centered on achieving and maintaining "quality" programs.

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The Office of Education cooperated with the American Home Economics Association in a statistical study on the supply of home economists. While the shortage of home economics teachers, revealed in the study, totaled only about 400, a much larger number of the total 34,000 teachers were employed on temporary certificates. It was predicted that more than 5,000 new teaching positions will be open in the secondary schools by 1965.

The National Conference on Homemakers Services, sponsored by the Office of Education during 1959, emphasized the importance of extending the work of one of its more recently inaugurated programs, homemakers services. This program offers, under the auspices of social work and health agencies, family education in the areas of home economics, the trades and industries, and practical nursing. One of the major problems confronting this program is the training of field-workers for these services.

The Office of Education cooperated with two groups of colleges in research projects during fiscal 1959. These projects were concerned with (1) the characteristics of prospective home economics teachers, (2) an evaluation of results of certain aspects of the home economics program, and (3) a study of secondary school home economics programs in various patterns of organization.

The Office also assisted in planning the Ninth International Congress on Home Economics, held at the University of Maryland under the joint sponsorship of the American Home Economics Association and the Canadian Home Economics Association. Thirty-six discussion groups were organized and directed by the Office and yielded reports on important aspects of home economics research, education, and careers.

International Education

Education assumed great importance in international affairs in fiscal 1959. Throughout the world, there was an increasing awareness of the relation of education to national strength. This awareness was reflected in the large number of requests from new nations of the world for American help in the establishment of public education.

The Office of Education cooperated with the Department of State in a survey of international educational affairs. The Commissioner participated in a conference called by the Director of the new Bureau of International Cultural Affairs. The Office actively supported the Secretary of State in his efforts to coordinate and improve national activities in international education.

At the request of the Department of State and a number of foreign governments, the Office provided educational services and professional

advice. The Office was also asked by the Department of State and by United Nations agencies to help in the formulation of policies in international education. The Commissioner continued as chairman of an Interdepartmental Committee on International Educational Policy. The Assistant Commissioner in charge of international education was requested by the National Academy of Sciences to participate as the education member of a team of specialists who made a survey of education in Africa south of the Sahara.

COMPARATIVE STUDIES

Expansion of its comparative education studies of Communist countries—particularly the U.S.S.R. and Eastern Europe—was made possible by additions to the Office of Education staff during fiscal 1959. Studies were made and reports issued on higher education, textbooks, examinations, publications, teacher education, and teaching in the physical and social sciences. The continued exchange of publications between the United States and the Soviet Union provided substantial resources for both staff and other research workers to study new developments in Soviet education and cultural programs for children, youth, and adults.

During the year, as part of an official exchange, a group of nine education specialists from the U.S.S.R. reciprocated the visit of the American team headed by the U.S. Commissioner of Education which had completed its visit to the Russian schools and colleges during 1958. These Soviet educators represented all levels of general and vocational education in their vast country. To continue the exchanges this year a study group of three Office of Education staff members visited schools and teacher-training institutions in the U.S.S.R. particularly to observe developments in the teaching of mathematics, science, and polytechnical education (industrial arts and work experience), and to study the relationships of these subjects to the whole general education curriculum. A report of their observations will be prepared and published during the next fiscal year. The group spent 1 week in Poland to become acquainted with the school systems there and to renew official exchanges between the two countries.

The year also saw the recruitment of staff and initiation of programs for the study of educational developments in Communist China and in Africa. The assurance of a continuing supply of educational data and documentation is the first requirement for comparative studies on these areas. Substantial progress has already been made in obtaining a steady flow of information on educational developments in both China and Africa.

The following comparative education studies were published during the year: *Japan: Three Epochs of Modern Education* and *Brazil:*

Education in an Expanding Economy. Others to be issued in fiscal 1960 are *Education in the Soviet Zone of Germany* and *Education in the Republic of Haiti.*

EVALUATION OF EDUCATIONAL CREDENTIALS

This year the Office of Education continued to evaluate the educational credentials of persons who have studied abroad and wish to pursue their education or to practice their profession in the United States. Although school officials are responsible for deciding how such persons shall continue their studies here, and State boards of licensure are responsible for determining the status of trained professionals, they may request the Office of Education to provide factual information and advisory interpretations of foreign educational experience in terms of U.S. education. In spite of the descriptive and evaluative information routinely supplied to these officials on a series of data sheets issued by the Office, nearly 5000 requests for information and advice were received during the year.

EDUCATIONAL MATERIALS LABORATORY

The Educational Materials Laboratory, serving approximately a thousand visitors yearly, the majority of them educators from abroad, expanded its collection of trade books and textbooks, which are widely used by teachers and children in schools of the United States. The EML displays a representative collection of approximately 10,500 such volumes and about 600 professional education books.

To keep curriculum specialists and classroom teachers both here and abroad informed of recent publications for classroom use, the EML has resumed publication of an earlier newssheet telling of recent acquisitions and activities.

INTERNATIONAL BUREAU OF EDUCATION

The first year of U.S. membership in the International Bureau of Education was stimulating in the opportunity it provided for face-to-face exchange of points of view on educational matters. The annual conference on public education held each July in Geneva, sponsored jointly by the IBE and UNESCO, brings together representatives of more than 70 countries, each of which provides a report of developments in education during the previous year. This conference, in which members of the Office of Education staff regularly participate as delegation members, provides the best single source of information on what is happening around the world in the education of children, youth, and adults. From such discussions delegates can assess the values each country considers important for its oncoming generation.

The past year was an important one in UNESCO's program, and the Office of Education cooperated in every way possible by preparing

program suggestions, by participating in planning sessions both here and at UNESCO's General Conference at the Paris headquarters, and in other technical meetings. The *World Survey of Education*, published by UNESCO in 1958, includes a substantial section on education in the United States, prepared by the Office of Education. During 1959, material for another volume in this series was completed. The worldwide clearinghouse function served by UNESCO is possible only with the cooperation of ministries of education and central government agencies responsible for such informational services.

INTERNATIONAL EDUCATIONAL EXCHANGE

In 1959, the Office of Education, under its working agreement with the International Cooperation Administration, provided training programs for 647 participants from 46 countries. The Far East, especially Thailand, Indonesia, and the Philippines, continued to be well represented. There was a marked increase of participants from Africa. The trend was toward more short-term, high-level participants who come to observe rather than to receive sustained training. Whereas programs in the past tended to emphasize broad areas such as elementary, vocational or teacher education, the past year showed a marked increase in specialized fields such as guidance, tests and measurements, and school building construction.

Special group projects included a Yugoslavian team in vocational education; a Moroccan group in rural education; a Turkish delegation to study laboratory schools; a Sudanese team in technical education; and vocational education groups from Brazil, Korea, and Spain.

Programs for the Christmas holidays and for the summer months were expanded. The hospitality centers of the University of Georgia, Michigan State University, and of the cities of Chicago, Denver, San Francisco, New York, and Philadelphia provided extensive services. Summer seminars were conducted at Wayne State University in industrial education, at Stout State College in vocational teacher training, and at the Agricultural and Mechanical College of Texas in vocational agriculture.

Teacher Development Program

The Teacher Development Program, which the Office administers in cooperation with the International Educational Exchange Service of the Department of State, showed an increase from 352 visiting educators in 1958 to 419 in 1959. The number of participating countries increased from 54 to 59. The regular program consisted of four groups in the teaching of English as a second language; two groups each in elementary education, American civilization, and secondary education; and one group each in administration and super-

vision, and vocational education. Individual itineraries were prepared for a number of participants at an advanced, specialized level.

The success of the teacher development workshop at the University of Puerto Rico in 1958 warranted the expansion of this activity. Two workshops were held in 1959—one in October for participants from South America, and one in February for the Caribbean and Central American area. A total of 87 educators participated in the two programs. The large number of applications for available grants indicated the continuing popularity of the Teacher Development Program throughout the world.

Teacher Exchange Program

In 1959 the Teacher Exchange Program showed an increase of 100 participants over 1958, reaching a total of 650 going to or coming from over 40 countries. One country, Peru, was added to the program for the first time, making a total of 16 countries involved in direct, two-way exchanges. Seminars were conducted abroad for American teachers of French, German, Spanish, Latin, and European or world history. The first seminar for American school administrators, conducted in France and the Netherlands in February and March 1959, was an outstanding success. Over 500 applications were received for the 20 grants. Two similar seminars were announced for the coming year, one to be held in France and Finland, the other in Italy and Norway. Reports from superintendents continue to endorse and support the interchange program.

Services varying from single appointments to complete itineraries were provided for a large number of secondary and nonprogram visitors. The former are participants in U.S. Government programs for which the Office does not have primary responsibility; the latter are visitors who do not have U.S. Government grants and are referred to the Office by their own governments, by foundations and other agencies, or who come to the Office of their own accord.

EDUCATION MISSIONS

The Office of Education continued its work with the International Cooperation Administration in the development of technical assistance programs in 45 countries of the world. A total of 205 educational specialists were carefully selected, recommended to, and approved by ICA to fill future vacancies in these countries. Approximately 400 educational specialists, exclusive of college contract employees, are working to improve educational programs in these lands.

The Office was also called upon to utilize the competencies of its specialized staff to furnish professional and technical support on a great number and variety of educational problems encountered by ICA educational specialists and their host government counterparts. The Department of State requested assistance in finding candidates

for 11 positions in various UNESCO assignments throughout the world. The names of 35 qualified educational specialists were submitted to the Department of State to be considered by UNESCO.

Table 1.—*Enrollment in the continental United States, 1957–58 and 1958–59*

[Office of Education estimates]

School	Year	
	1957–58	1958–59
Kindergarten through grade 8:		
Public school system (regular full-time)	26,037,000	26,780,000
Nonpublic schools (regular full-time)	4,466,000	5,060,000
Other schools [1]	167,000	170,000
Total kindergarten through grade 8	30,670,000	32,010,000
Grades 9 through 12:		
Public school system (regular full-time)	7,399,000	7,840,000
Nonpublic schools (regular full-time)	942,000	1,010,000
Other schools [1]	83,000	90,000
Total grades 9–12	8,424,000	8,940,000
Kindergarten through grade 12:		
Public school system (regular full-time)	33,436,000	34,620,000
Nonpublic schools (regular full-time)	5,408,000	6,070,000
Other schools [1]	250,000	260,000
Total kindergarten through grade 12	39,094,000	40,950,000
Higher education:		
Universities, colleges, professional schools, junior colleges, normal schools, and teachers colleges (degree-credit enrollment)	3,380,000	3,590,000
Total elementary, secondary, and higher education	42,474,000	44,540,000

[1] Includes Federal schools for Indians, federally operated elementary-secondary schools on posts, model and practice schools in teacher training institutions, subcollegiate deparments of colleges, and residential schools for exceptional children.

Table 2.—*Supply and demand for elementary and secondary public and nonpublic school teachers, 1958–59* [1]

Item	Elementary and secondary	Item	Elementary and secondary
Supply		*Demand*	
Total teachers 1957–58	1,436,000	Total teachers 1957–58	1,436,000
Less emergency teachers 1957–58	91,500	Teachers needed to meet increase in enrollment in 1958–59	57,000
Total qualified teachers 1957–58	1,344,500	Total demand 1958–59	1,493,000
Less 10.9 percent turnover of qualified teachers [2]	146,500		
Qualified teachers returning for 1958–59	1,198,000	Teachers needed in addition to new supply of qualified teachers	182,000
Emergency teachers qualifying for 1958–59	23,000		
New supply of qualified teachers (83.3 percent of elementary and 67.8 percent of high school teachers trained in 1957–58)	90,000		
Beginning and continuing qualified teachers 1958–59	1,311,000		

[1] This table is a revision of figures released in the summer of 1958. The changes are due primarily to revised reports received from the schools, and to the increased turnover rate mentioned in footnote 2.

[2] This figure for the number of qualified teachers not returning to classrooms because of death, retirement, marriage, or taking a position in some other field is estimated on the basis of a 10.9-percent turnover rate. The total is approximately 46,000 higher than would be obtained by using the turnover rate of 7.5 percent employed in previous years. The advisability of using the new rate was indicated by the results of a survey being conducted by the Office of Education.

Table 3.—*Grants to States, Office of Education for fiscal year 1959*[1]

States and outlying parts of the United States	Colleges for agriculture and mechanic arts	Cooperative vocational education	School construction and survey (Public Law 815)	Maintenance and operation of schools (Public Law 874)	Library services	National Defense Education activities	Total
1	2	3	4	5	6	7	8
Total[2]	$5,051,500	$38,353,194	$66,096,593	[3]$132,073,364	$5,362,445	[4]$43,958,119	$290,395,216
Alabama	100,541	990,257	1,578,114	3,087,204	161,369	1,710,314	7,627,800
Alaska	71,283	86,519	961,323	5,122,587	40,000	58,650	6,340,363
Arizona	77,477	205,553	2,621,924	3,157,506	63,528	18,430	6,144,419
Arkansas	89,047	783,605	259,730	746,984	130,203	367,176	2,376,747
California	175,599	2,013,197	13,385,738	24,857,719	184,362	3,180,840	43,797,456
Colorado	83,218	340,562	2,747,927	3,324,256	74,826	302,752	6,873,542
Connecticut	90,022	339,495	589,936	1,198,953	68,413	553,504	2,840,325
Delaware	73,172	163,207	10,010	311,428	----------	133,484	691,302
Dist. of Columbia	----------	145,070	----------	----------	----------	51,379	196,449
Florida	97,644	628,510	3,790,654	3,967,289	129,583	1,385,466	9,998,548
Georgia	104,360	1,158,760	628,417	3,693,022	172,959	2,050,303	7,807,822
Hawaii	74,985	178,650	2,044,041	2,354,720	50,927	176,860	4,880,185
Idaho	75,871	228,436	689,231	912,213	83,293	171,542	2,160,588
Illinois	156,905	1,638,313	1,594,022	2,271,067	177,739	2,392,691	8,230,738
Indiana	109,244	962,773	966,886	686,382	----------	1,628,077	4,353,364
Iowa	96,145	841,097	34,742	362,950	105,849	1,108,798	2,549,583
Kansas	89,005	573,902	1,243,224	3,541,652	64,543	804,076	6,316,404
Kentucky	99,374	1,007,470	105,517	975,434	171,239	1,563,999	3,923,035
Louisiana	96,768	824,326	644,150	797,425	125,470	1,614,185	4,102,326
Maine	79,115	250,005	137,243	1,113,677	71,159	208,136	1,859,337
Maryland	93,371	418,765	4,131,981	5,455,295	72,000	953,195	11,124,609
Massachusetts	116,788	701,935	277,778	3,818,192	78,000	1,258,197	6,250,892
Michigan	133,559	1,328,676	2,222,872	754,543	171,799	170,706	4,782,156
Minnesota	99,750	846,198	140,107	308,919	135,750	1,337,883	2,868,609
Mississippi	91,735	940,760	1,002,635	972,530	150,856	559,035	3,717,552
Missouri	109,448	1,067,243	1,317,607	1,660,042	134,010	1,320,517	5,608,868
Montana	75,895	205,341	394,674	730,388	63,486	283,245	1,753,030
Nebraska	83,222	435,338	910,763	1,047,151	89,626	586,528	3,152,629
Nevada	71,596	179,430	217,728	809,675	56,272	90,739	1,425,441
New Hampshire	75,319	160,672	75,674	607,480	55,971	99,403	1,074,519
New Jersey	118,233	791,070	398,306	2,271,962	85,783	642,756	4,308,111
New Mexico	76,794	225,892	3,438,300	2,991,620	63,931	216,517	7,013,056
New York	217,933	2,540,619	474,510	3,613,401	191,482	3,798,527	10,836,474
North Carolina	110,518	1,462,830	773,163	1,448,569	229,997	1,066,830	5,091,908
North Dakota	76,180	275,855	279,182	194,291	72,079	338,638	1,236,228
Ohio	149,269	1,712,274	680,961	3,157,885	207,041	2,686,900	8,594,331
Oklahoma	92,278	655,943	1,757,305	4,796,164	100,063	1,060,065	8,461,819
Oregon	85,175	401,726	111,405	839,414	89,514	287,266	1,814,502
Pennsylvania	174,719	2,022,785	94,010	1,773,018	85,472	1,493,298	5,643,303
Rhode Island	77,899	156,680	197,307	1,128,300	45,902	261,719	1,867,807
South Carolina	91,117	734,740	1,467,224	2,146,570	69,270	1,302,566	5,811,489
South Dakota	76,511	282,819	526,255	1,484,273	70,753	345,343	2,785,955
Tennessee	102,835	1,091,496	175,393	1,386,062	169,714	782,833	3,708,335
Texas	146,920	1,852,754	4,683,739	8,471,669	205,606	1,578,337	16,939,026
Utah	76,871	183,563	243,743	1,211,174	70,185	328,969	2,114,506
Vermont	73,768	183,748	----------	69,795	56,937	37,094	421,342
Virginia	103,104	976,716	3,854,602	9,371,603	164,032	356,368	14,826,427
Washington	93,730	580,244	1,739,257	5,801,015	101,770	444,887	8,760,905
West Virginia	90,005	615,304	----------	107,211	132,470	449,909	1,394,900
Wisconsin	104,260	992,587	6,156	313,363	132,450	135,363	1,684,181
Wyoming	72,898	166,008	207,234	353,539	----------	8,613	808,294
Puerto Rico	50,000	722,380	(−3,193)	----------	110,000	187,977	1,067,164
Virgin Islands	----------	39,570	----------	----------	10,782	7,222	57,574
Canal Zone							
Guam	----------	41,500	267,674	495,760	13,980	----------	818,914

[1] On a checks-issued basis. Does not necessarily agree with allotments or expenditures for a given fiscal year.

[2] Inasmuch as the cents have been dropped from this table, a totaling of any column may or may not equal the total given for that column.

[3] Does not include payments made to Army, $4,287,634; Navy, $1,206,205; Air Force, $1,264,895.

[4] Does not include payments made to States for loans and repayable advances ($30,585,941) or amounts paid to individuals, institutions, etc. under the National Defense Education Act ($3,194,833).

Food and Drug Administration

The food, drug, and cosmetic industries and the Federal regulating agency, the Food and Drug Administration, are in the midst of changing times. It will require the unswerving efforts of all concerned to insure that the products controlled by the Food, Drug, and Cosmetic Act continue to be the best obtainable in this or other lands.

New substances are being added to foods to permit commercial production and distribution of products that contribute materially to higher standards of living. Ninety percent of the active drugs now used in prescriptions were not known two decades ago when the safety of new drugs was first protected by law. They have saved many lives and permitted treatment of diseases that formerly were debilitating. Many are so potent that new measures of controls must be exercised in their manufacture and directions for use. Regulation of cosmetics has brought an end to the disfiguring preparations of the past, but too little is known about some of the new ingredients now being used. Farmers are using feeds medicated with potent drugs, and pesticides which require meticulous care to preclude unsafe residues in meat, milk, and eggs and on harvested crops.

All such developments add to the complexity of protecting the consumer and guiding manufacturers to assure the safety of their products. It requires research by industry, academic, and Government scientists and constant vigilance to see to it that their recommendations are followed.

The Food and Drug Administration had a full opportunity to learn the views of the groups affected by its activities during three day-long meetings held by the Secretary of Health, Education, and Welfare with representatives of national industry, professional, and consumer organizations in December 1958.

All of these groups vigorously advocated the continued strengthening of the Food and Drug Administration to meet its responsibilities in line with the Citizens Advisory Committee recommendations of 1955. Representatives said they want a bigger, better paid research staff, more educational work, a new central headquarters building to be constructed promptly, food additives work to receive prompt attention, food standards work to be resumed on a full-time scale, and public warnings against nutritional quackery to be continued.

Other recommendations, not unanimously shared, called for various amendments to the law—to require proof of the safety of new cosmetic ingredients, to change the requirements for coal-tar certification from the present "harmless" criterion to safe tolerances for intended uses, and to require proof of efficacy for new-drug clearance. Consumer groups spoke against any weakening of food standards provisions, while some industry spokesmen called for more flexibility. Many called for more enforcement of net-weight provisions, for adoption of the Uniform State Food, Drug, and Cosmetic Act by States that have not done so, and for better support of State food and drug law enforcement.

These groups also presented their views before appropriation committees of Congress on continued strengthening of FDA. The appropriation bill enacted for the 1960 fiscal year will bring the rate of growth of FDA up to the minimum rate recommended by the Citizens Advisory Committee, which called for a 3- to 4-fold expansion within 5 to 10 years.

Seventy positions to staff the new Detroit District were added for 1959 to the slightly more than 1,200 on the total enforcement rolls at the end of the 1958 fiscal year. Sixty-one positions to start the food additives work were added by a supplemental appropriation in 1959. The 1960 appropriation provided for 348 new positions, including 60 to augment the initial food additives staff.

A new district will be staffed at Dallas. At Atlanta where a new building is under construction similar to that at Detroit, the staff will be brought to full strength for the optimum use of expanded facilities. The increased appropriation will also provide for modern scientific equipment to bring 10 districts up to the Detroit equipment prototype.

The Detroit District, dedicated on May 14, 1959, is the first new district in 24 years, and occupies the only building ever built as an FDA laboratory facility capable of meeting the needs of changing times. The 18th district at Dallas will be its counterpart in design and facilities.

Research work will be advanced by adding 60 new people for the following specific projects:

To detect and identify pesticide residues

To determine effect of radioactivity on foods and drugs

To investigate presence of carcinogens in container waxes
To study presence of toxic properties in fatty acids
To investigate bacterial contamination of frozen foods
To develop methods of analysis for adrenal and cortex hormones
To provide additional effort in food standards and cosmetics

In addition, 15 new positions were established for food additives research.

Medical activities will be strengthened by 16 new staff members to work on the evaluation of new-drug applications, to study adverse effects of new drugs after they are in use, and to make clinical studies of quack drugs and devices. The increase will also provide 34 more jobs to strengthen compliance, regulatory and information activities, and administrative management.

While these developments provide a look ahead, rather than an accounting of stewardship for the year past, they indicate the areas in which consumer protection has been inadequate and in which better facilities were needed.

Steps forward in 1959 have included improved educational programs designed to combat medical and nutritional quackery, better industry sanitation programs, studies into the safety of food and drugs in this era of profound changes in composition and utilization, an effort to prevent debasement of supplies by those seeking illegal gains, and more industry and consumer educational activities.

Management consultants were employed to seek an outside view as to whether facilities and procedures employed were effective, particularly in field operations. The management consultants recommended that the present system of district offices be continued as well as their administrative functions, which should be expanded to some extent. They also recommended more resident inspection posts. They suggested areas in which work plans and program management can be made more effective.

The study clearly recognizes the magnitude of the enforcement task in these words:

> The administration of these laws involves effecting compliance with their provisions by a large number of establishments geographically dispersed throughout the United States. Over 100,000 industrial and related establishments, 56,000 drug and proprietary stores, 319,000 eating places, 373,000 retail stores, 2 million growers of fruits and vegetables, 6,000 wholesale fruit and produce dealers, 16,000 packing sheds, and approximately 330,000 commercial import lots, annually, are subject to one or more aspects of FDA's regulatory activities.
>
> A second characteristic of the job is its rapidly changing complexity. Advances in food technology—from growing to packaging and distribution, an increased number of new drug formulations and their applications, and the ever-widening application of nuclear energy to food products—pose a succession of new enforcement problems.
>
> Together these two characteristics have created a substantial gap between the job to be done and available resources—manpower, equipment, and facilities.

Training of new employees under the expansion program is a growing responsibility. Seventy-five percent of the inspection and clerical staff and 60 percent of the field chemists and Washington technical staffs have been with FDA less than 3 years. If the expansion provisions of 1960 continue, approximately one-third of the total personnel will be new in each of the next 2 years. A special training unit has been established to meet this situation.

Stepped-up education and information activities are reflected throughout the report. They have been designed to bring better compliance with the law by industry and better use of its protection by consumers. Industry and professional groups, consumer organizations, State food and drug agencies, and other Government departments with related responsibilities have contributed substantially to the growth of these activities.

Food, Drug, and Cosmetic Act

ON THE FOOD FRONT

Heavy rainstorms in many parts of the country caused flash floods which required supervised destructions of affected foods and drugs by local and State inspectors, with FDA help when needed. While individual losses from such storms were heavy in some cases, there were no disasters of the magnitude caused by floods and hurricanes in some previous years.

Potential Health Hazards

Deleterious ingredients.—Since 1957, about 4,000 samples of foodstuffs collected throughout the United States have been checked for radioactivity. The results disclose an increase in radioactivity of fresh vegetables above the "background" radioactivity normally present; evidence of continuing contamination in certain types of fish; an apparent increase in radioactivity in wheat collected in 1958 compared with that present in samples grown during the period 1945 to 1957; a continuing significant contamination of tea; and a wide range of radioactivity from fallout in samples of alfalfa hay and various ensilages harvested in 1958 and early 1959.

Only a limited number of samples have been analyzed to determine whether the radioactive material includes strontium 90. Alfalfa hay samples were found to contain up to 800 micromicrocuries[1] per kilogram of hay. Commenting upon this finding, Secretary Flemming emphasized that this radioactivity, by itself, is not a current threat to the public health. Strontium 90 has also been found in

[1] A curie is the amount of radiation given off by 1 gram of radium. A micromicrocurie is a millionth of a millionth of a curie.

some samples of tea, but not in the samples of tuna which have been examined for it.

Samples of beans, peas, and fish from Peru have been analyzed for radioactivity during 1959. The results will serve as a guide for greater selectivity in import sampling.

Over 900 samples of bulk-tank milk were collected in 16 major cities of the country over a 4-month period to determine whether antibiotics, particularly penicillin, were used improperly in medication of cows, with residues in milk resulting. The penicillin residues were substantially reduced as a result of educational work following previous surveys and regulations providing for better label warnings and lower dosages. There are still present, however, small percentages of penicillin in market milk in some areas. FDA, working in close cooperation with State and local health officials, will continue efforts to reduce the antibiotic residues.

Increased consumer protection from excessive pesticide residues on fruits and vegetables was provided by the planned collection and analysis of over 2,000 samples of crops from all commercially important growing areas and constant surveillance of the pesticide spray practices of growers.

These field investigations led to the finding of excessive DDT residues on a plant's entire pack of spinach being frozen for nationwide distribution. The crop had been sprayed with more than the recommended treatment 8 to 10 days closer to harvest than is directed to assure that unsafe amounts will not remain in the foods. After two large shipments were seized, the firm recalled the remainder of the pack throughout the country for destruction and inaugurated new controls.

The owner of a carload of lettuce, seized because of parathion and fluorine in excess of the tolerance, was an officer in two State associations of growers and shippers. Through these organizations he shared his object lesson with growers in a large area by warning them of the necessity of adhering to recommended schedules.

In another part of the country, inspectors encountered a crop of spinach that had gone to a packing plant the day after it was sprayed with parathion. When the canner was advised he destroyed 4,000 pounds of fresh spinach plus a small amount that had been processed. Additional truckloads of this spinach had been shipped to another food packer who had frozen it. At FDA's request, the firm held its stocks intact and after its own analysis disclosed excess parathion, voluntarily destroyed approximately 25,000 pounds in 10-ounce packages.

One district that had experienced serious spray residue problems the previous year sent out teams of inspectors and chemists, using trailer

laboratory facilities, to devote more than 5 man-years to the program. In addition to inspections and analyses, discussions were held with grower association officers, commercial pesticide applicators, managements of chemical companies, and others concerned. During the entire year, only one high-residue lot was encountered in the territory covered by this district.

Spray residue problems are not, however, confined to growers who disregard the amounts and timing of applications. A residue of DDE, a breakdown product of DDT, was found in carrots that had never been treated with DDT. Investigation disclosed that in previous years the field in which they were grown had been planted in cotton which had been heavily dusted with DDT.

FDA's concern that no pesticide residues endanger the milk supply led to the collection and analysis of over 300 samples of hay, silage, apple pomace, and field corn. Since most animal feeds of this type do not move in interstate commerce, samples which contained residues in excess of FDA tolerances were referred to State authorities to prevent use of such feed for dairy cattle. One State, for example, seized 248 tons of dried apple pomace with excessive DDT and warned all dairy operators and apple pomace producers of its potential danger to the milk supply. Federal seizure was made of hay with DDT, for which no tolerance had been established. This owner then warned the trade not to use pesticides that would make crops illegal. No excessive residues were found on feed crops sprayed with insecticides to control the grasshopper scourge in Colorado in the summer of 1958.

Twelve carloads of grain, aggregating 465 tons, were seized because of contamination with a mercurial compound. This is a known poison with legitimate use only as a seed treatment. Prosecutions were filed against three grain dealers distributing "throw-out" corn that had been so treated for seed use. Such corn, used by a manufacturer of poultry feeds, injured poultry and destroyed their egg-laying capability.

A leaflet "Protecting Crops and Consumers" addressed to farmers and agricultural leaders, and shippers of fresh fruits and vegetables was issued in December. It presents information intended to promote compliance with the pesticide chemicals law, with rules to be followed to make sure that pesticide residues do not exceed FDA tolerances.

A 16-State alarm was set off when the death of a child and illness of the rest of the family was traced to sodium nitrite in flounder fillets. Investigation disclosed that shipments of the contaminated lot had been confined to the area surrounding Haddon Heights, N.J., and that a number of other illnesses occurred. Outstanding portions were rounded up and the packing firm and its president and foreman were indicted by a Federal grand jury on charges that they had treated the fish with an injurious preservative with intent to mislead and defraud.

A sampling program began immediately after this tragedy to determine whether it was an isolated incident or whether other fish on the market might also have been treated with sodium nitrite. The survey showed that nitrites are not generally present in fresh or frozen fish fillets produced in this country. Eight seizures were made, mainly of imported frozen fillets and smoked and brined fish.

Other seizures of contaminated foods included powdered eggs containing salmonella organisms, cheese with staphylococci, imitation vanilla with coumarin (a flavoring agent found a few years ago to produce injury to test animals), caviar containing a borax derivative as a preservative, and feeds containing mineral oil and fluorine.

Food poisoning.—Forty-two outbreaks of suspected food poisoning involving approximately 1,200 persons were investigated by FDA during the year. *Staphylococcus* continued to be the most common causative agent and the majority of outbreaks developed as a result of insanitary handling or lack of adequate refrigeration.

Colby cheese prepared from unpasteurized milk was responsible for illness of more than 60 persons. Investigation revealed the cheese to be contaminated with large numbers of *Staphylococcus* and over 65,000 pounds were removed from the market by seizure.

In 14 outbreaks the specific micro-organisms or suspect food could not be determined.

To Keep Food Clean

Sanitation programs have covered the entire food industry but have been concentrated largely on the procurement of suitable raw materials, since the processors as a whole are aware of their responsibilities to maintain adequate sanitation controls in their factories. Since producers of the raw supplies often are not interstate shippers, FDA has endeavored to persuade them to protect their products from filth and spoilage through educational programs conducted with the assistance of agricultural and industry groups, and by enforcement actions against interstate firms that will accept unfit raw materials.

Inspections were made of 3,218 food storage warehouses, including wholesale grocers, chainstore warehouses, cold-storage warehouses, and other establishments where food is stored for subsequent distribution. This represented a slight increase of time devoted to this project over that of 1958; it had doubled the previous year. Contaminated or insanitary lots were removed from human food channels by voluntary destruction or Federal seizure. A large number of storage facilities were repaired and renovated to keep out pests and provide more sanitary storage.

Despite this progress some establishments were found on repeated inspections failing to protect stored products from contamination.

Prosecution actions were filed against 18 firms during the year for holding foods under insanitary conditions. Among them was a wholesale flour distributor who was accepting return shipments from retail stores when the flour became contaminated with insects and rodent filth. This flour was sifted and packaged in new bags and distributed at a slightly lower price to lower grade stores. Seizures were made and the firm and its manager fined.

Table 1.—*Actions on foods during the fiscal year 1959*

Projects	Seizures	Criminal prosecutions instituted	Injunction petitions
Total	828	111	13
Beverages and beverage materials	13	2	
Bakery, ready to eat cereal, and macaroni products	13	12	
Cereals and grain products:			
Human use	130	19	5
Animal use	4	7	
Chocolates, sugars, and related products	18	12	1
Dairy products:			
Butter and churning cream	33	6	
Cheese and other dairy products	6	2	
Eggs and egg products	34	9	2
Flavors, spices, and condiments	25	1	
Fruits and fruit products	58	3	1
Meat products and poultry	11		
Nuts and nut products	103	2	
Oils, fats, and oleomargarine	22		
Seafood	73	12	1
Vegetables and vegetable products	106	5	1
Miscellaneous foods (mixed lots)	2	1	
Warehoused foods	148	18	2
Food for special dietary uses [1]	27		
Food adjuncts	2		

[1] Includes vitamin products intended as food supplements.

Sampling of rail and truckloads of bulk wheat in the fiscal year 1959 resulted in 76 lots seized by Federal court action. Of these, 4 were seized for excessive damage by grain storage insects and 72 for contamination with rodent filth. Random samples taken during the course of the year indicated a distinct improvement in the sanitary quality of wheat since inauguration of the clean wheat program.

Concurrent with the sampling of wheat moving in interstate commerce, inspections are made of country elevators and terminal grain storage facilities in an effort to improve the sanitary practice of those firms. Through the cooperation of the Department of Agriculture, the Fish and Wildlife Service of the Department of the Interior, State colleges of agriculture, and county agents, the effort to improve grain storage is extended to the farm.

These educational efforts, together with injunctions and prosecutions, have resulted in destruction or abandonment of many old wooden elevators and repairs of others at large expenditures to put them in structural condition to protect grain from insects, rodents, and birds.

The magnitude of the wheat program is indicated by the fact that one injunction alone called for supervising the salvage of 150 carloads of wheat. Cooperating State food officials continued and materially expanded their own active programs. One State seized or embargoed 10 million pounds of wheat and other food grains.

In contrast to wheat, corn has many nonhuman food uses. This has presented difficulties in developing a program in the production of foods. An educational program has been initiated in the past year similar to the initial program in the "clean wheat" campaign. The Department of Agriculture and the Fish and Wildlife Service have joined FDA in issuing a leaflet "Clean Corn Will Pay Dividends," which was prepared in cooperation with the Corn Industries Research Foundation, Inc. Food industry and grain trade groups are assisting in distributing the leaflet so as to reach growers and handlers of food corn. Prevention of contamination not only means cleaner foods—it also means savings of millions of dollars through prevention of waste and destruction by insects, rodents, and birds.

The procurement of fresh, clean cream and keeping it so has for many years been the most serious problem of the butter industry, insofar as compliance with the Food, Drug, and Cosmetic Act is concerned. The major recent trend has been the churning of sweet cream only. An educational pamphlet issued by FDA in 1959 is entitled "Cream and Butter" (FDA Leaflet No. 9). It was prepared with the assistance of the American Butter Institute, as an aid to farm cream producers, cream station operators, and butter manufacturers. The industry, the Department of Agriculture, and State dairy officials have been assisting in its distribution to those responsible for the sanitary handling of cream at all levels. It also discusses keeping the milk supply from being contaminated by drugs administered to cows.

The 1958 report discussed the problem of the diversion of incubator reject eggs into human food channels. Enforcement pressure and effective investigation of this racket came to a climax at a converted turkey-processing establishment near Newburgh, N.Y., in March. This "detective story" began with the closing of an illegal operation at Nashville, Tenn. This plant was moved and reestablished in Florida. In turn the Florida plant was discovered by FDA inspectors and, after a large seizure, it was surreptitiously dismantled, as was a breaking plant in Jersey City.

Equipment from both operations next turned up at the plant near Newburgh. Here a surprise inspection stampeded ringleaders who had operated in the other locations and they dispersed without putting into effect the warning system that had covered up their previous operations. This consisted of a buzzer alarm that warned employees to hide evidence of their illicit operations before inspectors were ad-

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mitted. The employees were found continuing their regular operations—throwing the hatchery rejects into centrifuges and extracting everything liquid enough to come through. Then they froze the decomposed eggs in 30-pound cans. Federal seizure was made of 40,000 pounds, and State authorities supervised the destruction of the shell reject eggs not yet processed. A number of criminal cases have been filed and one operator has been charged with violation of a probation ordered in connection with a fine imposed for his Jersey City operations. See also "New Court Interpretations."

Filth or decomposition was charged in 79 percent of the food seizures; 7,430 tons were seized in 656 actions. Of these, 336 seizures involved merchandise that became unfit after interstate shipment. An additional 7,964 tons of unfit food were voluntarily destroyed or converted to nonfood uses by their owners as the result of FDA inspections.

These owners also reported 238 plant improvements costing approximately $4 million in the aggregate. Many have stated that the improved plant facilities and sanitary practices have more than paid for themselves through more efficient operations as well as in protecting foods from contamination and encouraging better employee concepts of sanitation.

Sixty-seven criminal cases charging shipment of filthy or decomposed foods were instituted. Sixty-eight prosecutions on like charges were terminated in the courts. Penalties ranged from probation to three jail sentences, of which one was suspended. The highest fine assessed was $4,500 against a warehouse and its president.

Twelve injunctions were requested to prevent the distribution of unfit foods. Five were against firms handling bulk grains, two involved incubator reject eggs, and one each confectionery, crabmeat, and canned tomatoes. Two were against warehouses. All were under injunction or temporary restraining order at the end of the year, except for one warehouse that corrected the insanitary conditions complained of; on its petition the court dismissed the case.

Pocketbook Protection

With FDA's policy of giving top priority to problems of health and sanitation, and with a shortage of funds for enforcement activities in recent years, only limited attention was given to frauds and cheats. Increased manpower now permits more attention to protecting the consumer's pocketbook.

A nationwide check was made of the net weight of 36 different packaged foods—from soup to nuts—in cans, boxes, or bags. More than 111,000 individual retail packages from 100 wholesale lots of each food were weighed. Fifteen percent were short in weight by varying amounts. Nine percent of the lots examined were short by less than

1 percent, 3 percent were 1 to 1.99 percent short, 1.5 percent were 2 to 2.99 percent short, 1 percent were 3 to 4.99 percent short, and 0.5 percent were short by 5 percent or more.

A seizure program was initiated on significant shortages and attention to net contents practices of food packers will be a part of each food plant inspection in the 1960 fiscal year.

An intensified oyster inspection program in the Chesapeake Bay area for 11 days during the peak pre-Christmas packing season resulted in the filing of 11 criminal cases against packers observed to be soaking oysters longer than permitted by the FDA standard. Since excessive soaking is a practice that can be, and usually is, abandoned when an inspector enters the plant, lengthy or repeated inspections of 73 plants during this peak period brought many consumers better oysters for the holidays.

A 2-year Government-Industry Cooperative Oyster Research Project was launched in December. Its purpose is to acquire facts upon which to evaluate the adequacy of the present standard and to suggest changes to strengthen consumer protection against excess water in oysters. The Fish and Wildlife Service of the Department of the Interior, the Oyster Institute of North America, and FDA are each contributing a scientist to the project.

More than a hundred seizures were made to protect the food buyers' pocketbooks. Included were watered orange juice, spent tea leaves and paprika, two brands of blueberry pancake mix with starchy purple pellets substituted for blueberries, coffee beans containing husks, black pepper containing buckwheat, and sirups and oils debased with cheaper ingredients. Among the items seized for failure to meet official standards were butter, cheese, oysters, shrimp, french dressing, salad dressing, and canned peaches, beans, mushrooms, and tomatoes.

Twelve of the oil seizures involved teaseed oil imported from Italy as olive oil. Fourteen other lots, totaling 89,000 gallons, were denied entry after FDA became aware of the situation. The two oils have practically identical chemical constants and special tests must be used to detect the adulteration. The teaseed oil was produced in China and reached Italy indirectly through the Iron Curtain for illegal manipulation and labeling. The Italian Government is reported to have taken action against the Italian firms involved.

Products of Special Dietary Significance

To protect those for whom nutritional supplementation is required and those whose diets must be restricted in the management of certain diseases, the law requires special dietary items to conform to the labeled composition and to bear informative labeling to guide in their use.

Twenty-eight seizures were made of products failing to meet the vitamin potency claimed on the labels. Other violations were failure to set forth the minimum daily requirements of the vitamins declared on the labeling, and failure to list the sodium content of crackers and canned tomatoes offered as special dietetic items for persons on low-sodium diets.

Foods and nutritional supplements seized for false and misleading claims are discussed with misbranded drugs, since action was taken for violation of the drug provisions of the act. Many of them were offered for conditions that should be diagnosed and treated only by competent physicians.

DRUGS AND DEVICES

Recalls.—Twenty-seven defective or misbranded drugs were recalled by manufacturers during the year. Six antibiotics and seven other drugs were below labeled potency. One had decomposed in possession of dealers. Some bottles of an ear preparation were labeled for treatment of the eyes. Another label mixup involved the labeling of saline injection as dextrose. Four other injection drugs contained pyrogens or were nonsterile. Four contact lens wetting solutions were recalled from sale because they also were nonsterile.

One product was recalled because it had been distributed without a new-drug application, and two products being distributed under effective applications were recalled because of adverse reactions in some patients. The new drug applications were suspended in both cases, with the concurrence of the manufacturers.

An electrical device for treating mastitis in cows was recalled after seizures alleging that it was potentially dangerous to the treated animal and the person applying it.

Illegal Sales of Prescription Drugs

Of 95 criminal actions charging drug violations, 72 cases involving 140 defendants were filed on charges of illegal sales of prescription drugs. Sixty-nine cases against 124 defendants were terminated in Federal courts in 1959 with 1 verdict of not guilty for 3 individual defendants but guilty for the corporation. Jail sentences ranging from 6 months to 2 years were imposed on 8 individuals, in addition to 10 others that were suspended. Other penalties ranged from suspended nominal fines to $3,000 required to be paid.

State troopers have attributed many accidents to the use of amphetamine by drivers. The sale of such drugs is principally through truck stops, cafes, and drive-ins. It is definitely a bootleg type of business and is being pushed further underground in the hands of persons with criminal records for violation of other laws. Every effort is being made to trace the amphetamine tablets back to the point where they were diverted from legitimate drug channels.

Many States have been active in curbing illegal sales of this type and State boards of pharmacy have taken action against pharmacists convicted of violating State and Federal restrictions on the sale of prescription drugs.

Adulterated and Misbranded Drugs and Devices

Litigation against the Hoxsey Cancer Clinic of Portage, Pa., was reviewed in some detail in the 1958 report. A contempt of court action, based on violation of the injunction, was filed in October 1958. To avoid punishment for this the "clinic" directors signed a supplemental consent decree of injunction which provided that they would close their establishment by November 1, 1958.

Two cases in 1959 were based on counterfeits of well-known brands of a tranquilizer. FDA cannot take the responsibility of protecting drug manufacturers' patent rights. It must, however, protect the public against drugs so formed that they may be palmed off for legitimate products which they do not meet in potency. The court assessed a substantial penalty, and two other individuals were under indictment at the close of the year. A manufacturer's private detective worked with FDA inspectors to get the evidence.

Two druggists were fined, given suspended jail sentences, and placed on probation for 3 years for substituting inexpensive cold tablets for an antibiotic prescribed for an upper respiratory infection. When the patient got worse instead of better, the physician became suspicious and referred the matter to FDA.

Cherry juice for arthritis, cabbage juice extract for ulcers, 62-cents-a-piece pollen candy for longevity, and royal jelly for sexual vitality are but a few examples of the 83 drug seizures charging false and misleading therapeutic claims. Conditions listed in the labeling ran the gamut from "that tired feeling" to diabetes, tuberculosis, and cancer.

Promotion of royal jelly as a rejuvenator has continued despite seizures for the past 3 years. While medical research is being conducted into the relationship, if any, between certain heart ailments and the kind of fats consumed, food fad promoters are offering worthless products to protect against heart disease. Sufferers from arthritis and other conditions related to aging are the target of many quackery schemes.

The American Medical Association has estimated that overweight Americans are spending $100 million a year on spurious diet aids and useless mechanical devices. The 1958 annual report mentioned the joint efforts of the AMA, The National Better Business Bureau, and FDA in an educational campaign against nutritional quackery. These have been continued throughout the year, with the strong support of Secretary Flemming, whose warnings were published in newspapers

throughout the country. These same groups have extended this educational work to warnings against the fraudulent products and schemes being foisted upon the public as weight reducers.

Purported appetite depressants, food supplements, and other products are often offered with a plan including a low-calorie diet which alone produces the results, if any. Among the purported reducing agents seized were cigarettes and chewing gum.

Fifty-seven devices were seized for false and misleading claims. Many of them were electric vibrators offered for weight reduction. They included hand units, cushions, chairs, tables, mattresses, belts, and rollers. Some were also promoted for the cure of serious diseases. Vibration from these devices may provide temporary relief for minor aches and pains due to overexertion or fatigue, but they will not reduce weight or cure disease.

Other misbranded devices seized included chemical and radio diagnostic devices, do-it-yourself hypnotism records, therapeutic lamps and blankets, foot exercisers, vacuum cleaners, and time-honored copper charm bracelets, each falsely claiming to cure or prevent a long list of serious conditions for which they were worthless.

Apart from vitamins, covered under products of special dietary significance, 36 drugs were seized because they failed to meet official or declared composition. Also seized were 12 lots of condom prophylactics and clinical thermometers that were defective.

Four injunctions involving drugs and devices were requested of the courts during the year. One concerned adulterated injection drugs sold without an effective new-drug application. The other three were requested because of false and misleading therapeutic claims. They involved a cream and lotion, a so-called appetite depressant, and a pad containing pulverized rock falsely purported to contain uranium with healing properties.

Medicated feeds.—The medication of a large proportion of prepared feeds to stimulate growth or treat disease in food animals has added materially to the regulatory obligations of FDA and State feed control officials.

Many of the new drugs used in medicated feeds produce profound physiological and pharmacological effects upon animals even when present in small amounts. Not only must the safety of foods derived from animals fed medicated feeds be established, but the incorporation of potent drugs in feeds at low levels requires exacting manufacturing and laboratory controls. Four shipments of feeds containing antibiotics were seized because they did not comply with certification requirements, or contained less of the drug than declared, or because another drug had been substituted for the antibiotic claimed.

New Drugs

During the fiscal year, 448 new-drug applications including 79 for veterinary use were received; 273 including 43 veterinary applications became effective, permitting the products to be marketed. In addition, 1,067 supplemental applications including 377 for veterinary use were made effective. Two effective applications were suspended. No order was issued refusing to permit an application to become effective. One drug was exempted by regulation from prescription dispensing.

Included in the list of drugs allowed to be distributed under effective new-drug application were: Two oral antidiabetic agents; one antibiotic and one sulfonamide for the treatment of infections; eight drugs useful in psychotherapy; one narcotic and one mild analgesic agent for relief from pain; one antileukemic drug; a reserpinelike alkaloid for the treatment of hypertension; a drug which increases the excretion of uric acid in gout; a new steroid for the treatment of rheumatoid arthritis and other collagen diseases and a steroid with anti-inflammatory action for topical use only; a progesterone derivative for menstrual disturbances; two proteolytic enzymes for the cleansing of wounds and three antiseptics; a radioactive isotope for diagnostic use; three drugs to lower intraocular pressure in glaucoma; two vasodilators useful in vascular diseases; a skeletal muscle relaxant; one appetite depressant and two drugs for relief from vomiting; two antihistamines; a local anesthetic for dental use; two intravenous preparations, urea to decrease intracranial pressure and an amino acid to relieve a certain type of hepatic coma; and three diuretics for the treatment of congestive heart failure.

It is a part of the safety requirements for new-drug clearance that the applicant show that adequate manufacturing controls will be maintained. A number of seizures made during the year were of products manufactured by firms which did not have this clearance, although there were effective applications for the drugs themselves when manufactured by firms that had established adequate processing controls.

Among the drugs covered by the applications processed for veterinary use were: Two antibiotics for growth promoting effects; 2 tranquilizers for use in feed as growth promotants; 1 long-acting sulfonamide for treating systemic infections in farm animals; 10 corticosteroids with the trend to the more potent, somewhat specific agents such as Dexamethasone; 5 injectable iron preparations for treatment of baby pig anemia; and 3 anesthetics, 2 parasiticides, 2 diuretics, and 2 preparations for the treatment of dermatoses.

As a result of the food additives amendment, a number of veterinary new-drug applications and supplements to existing applications were refused on the basis that adequate information was not available to show that the product would not cause cancer.

COSMETICS AND COLORS

Three cosmetics were seized under the drug provisions of the act because they were falsely labeled, two for rejuvenation of the skin and one for curing dandruff. An eye lotion was voluntarily recalled by a cosmetic firm when its consulting laboratory reported bacteria and mold in several batches.

CERTIFICATION SERVICES

Coal-tar colors.—All coal-tar colors used in foods, drugs, and cosmetics (except hair dyes) must be from batches certified as harmless by FDA. In 1959, 5,262 batches representing 7,348,717 pounds were certified, and 22 batches, representing 23,774 pounds, rejected.

Insulin.—All batches of insulin must be tested and certified before distribution. Examination of 350 samples resulted in the certification of 288 batches of 7 insulin drugs and 60 batches of materials for use in making insulin-containing drugs.

Antibiotics.—The predistribution testing and certification of certain antibiotics is also provided by amendments to the act. Examinations were made of 13,716 batches of penicillin, chlortetracycline, bacitracin, chloramphenicol, dihydrostreptomycin, streptomycin, tetracycline, neomycin, nystatin, erythromycin, novobiocin, polymyxin, oleandomycin, and oxytetracycline during the fiscal year. The last seven antibiotics are not included in the certification amendments, but are tested when they are mixed with those requiring certification. Twenty-seven batches were rejected for failing to meet the following standards: Potency (15), sterility (5), moisture (5), and pyrogens (2). In addition, manufacturers withdrew their requests for certification of 15 batches because they were substandard.

Enforcement of Other Acts

A total of 109,809,995 pounds of tea was examined under the Tea Importation Act. Rejections for failure to measure up to the standards set by the U.S. Board of Tea Experts totaled 99,367 pounds, or 0.09 percent. Three rejections were appealed to the U.S. Board of Tea Appeals, which upheld the decision of the FDA examiner in one case and sustained the appeal in one. The third was voluntarily withdrawn by the importer.

Three shipments of a bowl cleaner were seized for failure to bear the word "poison" as required by the Caustic Poison Act. A fourth seizure involved a grill and fryer cleaner containing more than 10 percent sodium hydroxide which was not labeled "poison" and did not give adequate directions for treatment in case of accidental injury.

No permits were issued for importations of milk from foreign countries, nor were any actions instituted under the Filled Milk Act.

New Court Interpretations

Four petitions for certiorari were filed with the Supreme Court during the fiscal year.

The Court accepted the Government's petition to review a Fifth Circuit Court of Appeals decision against the Secretary's order delisting for color certification FDC Orange No. 1, Orange No. 2, and Red No. 32. In reversing the Fifth Circuit Court, the Supreme Court agreed with the Department's construction of "harmless" and held that there is no authority under section 406(a) of the act to establish a tolerance for a poisonous coal-tar color.

The Supreme Court refused to review a Seventh Circuit Court of Appeals decision that a corporation cannot plead the fifth amendment as a defense for not answering interrogatories. The appeal included an attempt to establish that an agreement made with the Post Office would be "res administrata" and binding upon all other Government agencies.

In reversing a decision of the Court of Appeals for the Tenth Circuit upholding conviction of an individual for selling prescription drugs illegally, the Supreme Court remanded the case for a new trial on the grounds that the jury may have been prejudiced by the newspaper publicity during the trial in the district court.

The 1958 annual report outlined litigation in a mineral water seizure that had been pending since 1953. The claimant asked the Supreme Court to review the entire case including the original decision of the Court of Appeals for the Eighth Circuit which reversed the jury verdict against the Government's charges that the labeling failed to comply with the dietary food regulations. The Supreme Court refused the petition.

Significant district court decisions included one holding for the Government in a case involving an insanitary wholesale grocery warehouse. The court observed that copies of analyses need not be furnished under section 704(d) of the act to warehousemen and that section 301(k) of the act is applicable to warehousemen who maintain insanitary establishments.

Findings of fact and conclusions of law handed down by a district court in a seizure case involving incubator reject shell eggs were significant because of the court's conclusion that shell incubator reject eggs are food within the meaning of the act regardless of the intended use of the eggs. This decision supports the statement of policy published in the Federal Register of September 5, 1958, holding incubator rejects to be adulterated if not denatured so as to preclude their use as food.

In another seizure case involving frozen whole eggs, the district court strongly supported the validity of bacteriological and chemical

methods used by the Food and Drug Administration to establish decomposition in a product of this kind.

In a prosecution case involving a vitamin-mineral supplement, the district court, contrary to the decisions of numerous other courts, directed acquittal on his interpretation that the act does not apply to verbal misbranding.

Changes in the Law and Regulations

The enactment of the food additives amendment (Public Law 85–929) on September 6, 1958, was discussed in the previous report. Its requirements went into effect March 5, with an additional year permitted to obtain clearance by regulation for substances already in use before January 1, 1958, and not generally recognized by experts as safe. (See "Regulations.")

Public Law 86–2, approved March 17, 1959, amends the act to permit the temporary listing and certification of Citrus Red No. 2 for coloring mature oranges under tolerances found safe by the Secretary. FDC Red No. 32, permitted by statute for coloring oranges, was dropped at the same time. The new color, developed especially for use on oranges, permits a greater margin of safety.

A number of bills that did not pass during the 85th Congress were reintroduced in the early days of the 86th Congress. Among them were bills to provide for the establishment of tolerances for colors used in foods, drugs, and cosmetics; the pretesting of new cosmetics; label warnings for hazardous chemicals; better controls over barbiturates and amphetamine; and a change in the labeling requirements for preservatives applied to crops after harvest. These bills are all pending.

REGULATIONS

Drugs.—The labeling requirements of the insulin regulations were amended in March 1959 to require that after February 1, 1960, the expiration date must appear on each vial as well as on each package of an insulin-containing drug. Effective July 2, 1959, the term "insulin" was redefined to exempt from certification partially purified insulin intended for use in insulin-containing drugs.

Twenty-one new monographs and 417 amendments were added to the antibiotic regulations, and 423 permits were made effective to exempt medicated feeds from certification requirements.

A proposal was published, with opportunity for comment, on warning statements necessary for the protection of users of nonprescription drugs.

A statement of policy was issued on timed-release medicines, which have in some cases released potent medication too fast or at a slower

rate than the physician expects. It provides that a multiple-dose product containing a quantity of active ingredient not recognized as safe for administration as a single dose must have an effective new-drug application, including data to establish that the active ingredients will be released as labeled.

Among the other policy statements published were a comprehensive statement on the labeling of drug preparations containing salicylates, a statement on the warnings required of nonprescription drugs offered for use in minor sore throats, and a statement that injectable iron preparations for veterinary use are regarded as new drugs.

Food additives.—Preprints of proposed food additive regulations were distributed on November 24, the first day of a well-attended 2-day food additive conference of FDA, members of the Food Law Institute, and representatives of the Manufacturing Chemists Association. These proposed regulations, published in the Federal Register of December 9, 1958, are both procedural and interpretive. They list 188 food additives proposed for exemption because they are generally recognized as safe for intended uses. The procedural regulations went into effect on March 28, but time was extended for comment on the proposed exemptions.

A second list of proposed exemptions, published on April 21, 1959, covers natural flavors and spices. Twenty-eight petitions for tolerances had been received by the end of the fiscal year and two were permitted on February 12, setting tolerances for an antioxidant to be used to protect forage crops from losing nutrients from oxidation, and establishing specified tolerances for this substance in meat and eggs of animals and poultry fed the treated feed.

The industry has been urged to avoid delay in filing applications for substances in use before January 1, 1958, and not generally recognized by experts as safe. A last-minute deluge of applications before the March 1960 deadline, or failure to file by then, would require discontinuing use of such substances, unless an extension of time is found by the Secretary to be justified and without danger to the public health.

Coal-tar colors.—Four dyes were removed from the list of colors certifiable for use in foods, drugs, and cosmetics because of tests showing them to injure test animals. Two have been used in butter, oleomargarine, and other oils and fats; the other two are little used in foods. These dyes are still permitted for use in externally applied drugs and cosmetics.

Because of injury to test animals, a proposal was made to remove 17 colors from the list of those certifiable for use in drugs and cosmetics, while continuing to certify 13 for use in externally applied drugs and cosmetics. Some of these colors are widely used in lip-

sticks, which are not considered "externally applied" because they are partially ingested and absorbed through the mucous membranes. The proposal has been opposed by drug and cosmetic manufacturers who would be seriously affected by the delisting. Although there is no evidence that lipsticks now employing these colors are injurious, there is no authority under the act to establish tolerances for a coal-tar color found not "harmless" in any concentration. (See "Court Interpretations.")

At the request of the color manufacturing industry, specifications for a red coal-tar color for use in foods, drugs, and cosmetics were changed to improve the purity of this color.

A proposal was published to amend the regulations by providing for cancellation of certificates issued on colors subsequently delisted.

Pesticides.—In the fiscal year, 130 permanent residue tolerances or exemptions were established for the use of 22 pesticide chemicals on raw agricultural commodities. Since the enactment of the pesticide chemicals amendment, 2,070 tolerances or exemptions have been enacted for 104 pesticide chemicals. Six temporary tolerances were established for 1 chemical pesticide and 44 temporary exemptions for a microbial pesticide capable of killing insect pests but not injurious to man or other warm-blooded animals.

One of the tolerances established in 1959 permits the use of the antibiotic chlortetracycline in some forms of uncooked seafood to retard bacterial spoilage. The only other permitted use of antibiotics in food is for uncooked-poultry dips.

Food standards.—Definitions and standards of identity were promulgated for six canned fruits to be artificially sweetened with nonnutritive substances. The words "artificially sweetened" are to appear on the label as the first two words in the name of each food. They are also required to comply with the labeling requirements of foods for special dietary use.

Standards became effective for frozen concentrate for lemonade, except for certain provisions that were stayed by objections requiring a hearing.

The identity standard for canned pears was amended to provide for the use, with label declaration, of artificial green coloring in mint-flavored pears and artificial red coloring in spice-flavored pears. An amendment to permit artificial red coloring in cinnamon-flavored apple and crabapple jelly was stayed by objections requesting hearings.

The standards for bakery products were amended to permit the use of limited proportions of wheat gluten to strengthen roll and bun dough, and also for loaves of raisin bread.

The sponsors of a standard for samsoe cheese petitioned to have the maximum moisture limit lowered from 46 to 41. This avoided a

controversy with the manufacturers of swiss cheese, which has a 41-percent moisture limit.

Scientific Investigations

New problems of enforcement constantly arise and their solution requires continuous research along many scientific lines. The Bureau of Biological and Physical Sciences coordinates the work of seven scientific Divisions, each having its particular responsibilities. Their work is to develop methods of analysis; to evaluate the safety of pesticides and food additives; to work out effective specifications for certifiable antibiotic preparations, insulin, and coal-tar colors; to provide a sound scientific basis for administrative policies and to confer with representatives of the industries involved; and to improve certification enforcement and procedures.

During the past several years the divisions lagged in the application of the newer instrumental techniques to their scientific problems because funds for procuring the required equipment were not available. More recently, and especially during fiscal 1959, the situation has improved, and divisions are making increasing use of spectrophotometry, gas chromatography, X-ray techniques, electrophoresis, and spectrofluorometry.

Eighteen projects relating to improvements of methods for antibiotic assay have been completed, and 7 are in progress. An example is a microbial method which will detect as little as 0.05 unit of penicillin per milliliter of milk in 2½ hours. Twenty clinical studies on man, related to antibiotics (e.g., levels of antibiotics in blood and pain evaluation studies) have been completed, and one is in progress. In addition, 18 miscellaneous projects have been completed and 6 are still in progress. To illustrate, the fourth nationwide survey of fluid milk for antibiotic residues (1,170 samples) has been completed and the results have been published. In cooperation with manufacturers, over 300 batches of antibiotic diagnostic disks were checked for conformity with specifications.

Work continues on the determination of the exact chemical structure, the identification of intermediates, and the purity of certifiable coal-tar colors. Progress has been constant in the development of methods for cosmetic analysis in this field. A compendium of methods of analysis for cosmetics has been composed, and will be ready for publication in the near future.

Development of methods for the detection and determination of pesticide residues, and analytical methods for detecting food additives, are important continuing projects. A corollary responsibility is the review of pesticide and food additive petitions.

Studies of decomposition in fish, eggs, and butter have continued. Progress has been made in the identification of the toxic principle which occurs in certain byproduct fats and causes a fatal edema disease in chickens. Various studies on milk have been completed and reported: The second nationwide survey of pesticide residues, the persistence of mineral oil residues as a result of mastitis treatments, the occurrence of heptachlor or its epoxide in milk as a result of feeding low levels of heptachlor to the cow, and the takeup of paraffin waxes by carton-packaged milk.

The bacteriological survey of frozen precooked foods has continued. Some 3,000 miscellaneous products have been examined, and a general report of the work to date is being compiled. It is expected to have a far-reaching effect on inspectional and bacteriological standards in the frozen food industry.

An improved procedure for isolating *Salmonella* from dried eggs has been developed. Significant progress has been made in devising a serological test for *Staphylococcus* and its enterotoxin. Both organisms frequently figure in food-poisoning episodes.

Work on methods of filth in foods continues. A revision of Food and Drug Circular No. 1, "The Microanalysis of Food and Drug Products," issued in 1944, was sent to the printer in June 1959.[3] Work also continues on the qualitative identification of drugs and their mixtures by means of a keyed classification of microcrystal identification tests.

In the past year much time has been spent in developing analytical techniques and checking new reference standards for a number of items which will appear in the 16th revision of the U.S. Pharmacopeia. The potassium bromide disk technique has been successfully applied to the infrared spectrophotometric determination of adrenal cortex hormones, barbiturates, ethinyltestosterone, quinidine, and several nitrate esters. A uniform simplified method for analyzing alkaloid-containing drugs has been developed.

A new chemical method for folic acid has been developed and published. A chemical method for vitamin D has been developed and, with some modification, has been adopted for inclusion in U.S.P. XVI.

FDA has been concerned over claims in labeling and advertising that enzymes have an established nutritional value. Experiments indicate that the normal animal has a tremendous capacity to produce the enzymes needed for the digestive process and that in the case of the normal individual there appears to be no need for supplementing the diet with enzymes. Studies of the effect of heat upon fats, and

[3] "Microscopic-Analytical Methods in Food and Drug Control," Food and Drug Technical Bulletin No. 1.

of the effect of food additives upon the nutritional status of the experimental animal are being continued.

Assay of desiccated thyroid by the U.S.P. chemical method for iodine content, and by bioassay for physiological activity, showed that desiccated thyroid stored at room temperature does not deteriorate over a 3-month period. Over long periods of time (20 years) there is a change in activity. Apparently there is no direct relationship between iodine content and biological activity.

Variability in the U.S.P. method for the assay of ACTH has led to a reexamination of bioassay procedures, and a new approach is being tested.

Work on the toxicity and metabolism of food colors continues. A study of aerosol hair-spray preparations, with animals and with human volunteers, showed that these products are not harmful when applied in the usual manner.

A 5-month clinical study of 1,100 surgical operations was conducted on postsurgical wound infections with bacteria cultures made of incisions at the time of wound closure, and if infection developed later all strains of *Staphylococci* were phage typed. Cultures were also made of nasal secretions of operating personnel to identify carriers of infection resistant to antibiotics being employed.

The pilot study on reporting adverse reactions to drugs continued as an active project. A handbook was completed on reporting procedures for use of participating hospitals. The ultimate goal of the study is a permanent reporting system.

Among the veterinary studies at FDA's Beltsville laboratory were a "pink eye" remedy, in a Freon-type container, for sheep and cattle. The tests showed that labeled directions were inadequate for proper use and firms marketing similar items were informed that the distance recommended for spraying the preparation into the eyes of affected animals was so close that irritation resulted. Various injectable iron preparations recommended for use in the treatment of baby pig anemia are under study for efficacy and safety.

Enforcement Statistics

The 27,502 establishment inspections conducted by FDA were divided into 21,840 basic factory and warehouse inspections, and 1,813 of pesticide practices, 3,689 of public eating places to check on notification of the service of oleomargarine, and 160 involving illegal sales of prescription drugs. Of 29,747 domestic samples collected, 21,264 represented foods, 8,048 drugs and devices, 259 cosmetics and colors, and 176 miscellaneous.

In the 173 criminal actions terminated (or terminated for some defendants) in the Federal courts during 1939, fines assessed totaled

$115,831. Jail sentences ranging from 1 month to 2 years were imposed in 22 cases involving 25 defendants. Twelve individuals were required to serve imposed sentences, averaging 8 months; they were suspended for 13, on condition that violative practices be discontinued. Records of actions terminated in the courts were published in 1,610 notices of judgment.

Table 2.—*Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1959*

Item	Total		Criminal prosecutions instituted		Seizures accomplished		Injunctions requested
	Violative samples [1]	Actions	Violative samples	Actions	Violative samples	Actions	
Total	2,549	1,270	879	206	1,670	1,047	17
Foods	1,619	952	324	111	1,295	828	13
Drugs and devices	919	309	555	95	364	210	4
Cosmetics and colors	5	5	----	----	5	5	----
Caustic poisons	6	4	----	----	6	4	----

[1] The number of samples on which the actions are based always exceeds the number of actions; in seizures a variety of articles may be contained in a single shipment, while in criminal actions each sample usually represents a single shipment which forms one count of the action.

Table 3.—*Import samples collected, examinations made, and lots detained during the fiscal year 1959*

Item	Samples collected	Examinations made	Lots detained
Total	11,284	16,849	5,463
Foods	8,691	15,677	2,675
Drugs and devices	2,141	840	2,467
Cosmetics, colors, and miscellaneous	452	332	321

Office of Vocational Rehabilitation

Progress in 1959 Points Up Proportions Program Has Reached in 5 Years Under Public Law 565

IN THE 5 YEARS since the 1954 amendments to the Federal vocational rehabilitation legislation were enacted as Public Law 565, new proportions were reached in the public program for rehabilitating disabled men and women into employment.

The annual totals of rehabilitated persons increased greatly—the total during the fiscal year of 1959 [1] was 45 percent greater than in 1954—but the new legislation also provided the incentives and means for making rehabilitation a much more effective instrument for the welfare of the disabled and the handicapped.

For 4 successive years new high records were reached in the number of disabled persons rehabilitated into employment by State and territorial rehabilitation agencies. The total reached 80,739 for the fiscal year ending June 30, 1959. It was a gain of 9 percent over the previous year.

The total number of persons rehabilitated during the 5 years is more than 350,000. Among them are more than 17,000 professional people—doctors, teachers, engineers, and others. Some 38,000 went into skilled trades, and another 30,000 went into agriculture. Almost every trade, vocation, and profession is represented. In addition to the satisfactions they gained from the ability to work productively, those who were rehabilitated during the 5-year period are estimated to have increased their aggregate earnings, in their first year after rehabilitation, 5 to 6 times over their previous earnings.

REHABILITATIONS IN 1959

In the new record of 80,739 handicapped persons restored to useful activity and established in employment by the State vocational

[1] Unless otherwise indicated, all subsequent references to 1959 will be to the fiscal year, that is, to the period between July 1, 1958, and June 30, 1959.

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rehabilitation agencies in 1959, the preponderance of disability continued to be in orthopedic impairments—amputations or other crippling conditions. About 38 percent (or 30,700) of the rehabilitants had this type of handicap, and, of these, about three-fifths were injured in accidents, and about one-fifth were handicapped by poliomyelitis, osteomyelitis, or arthritis.

Referrals came from many sources, but the largest proportion (33 percent) was from physicians, health agencies, or hospitals. Another 14 percent was referred by public welfare agencies, and 7 percent by State employment service offices. About 12 percent applied for services on their own initiative. The remainder came from such sources as educational institutions, employers, and unions.

More than half of the rehabilitants of 1959 had dependents, and 63 percent were men.

The occupations in which rehabilitants were placed in 1959 included nearly all types of work. The proportions employed in the major occupational groups remain similar to those in recent years—skilled and semiskilled workers, 26 percent; clerical and sales, 17 percent; service workers, 19 percent; family workers and housewives, 13 percent; professional, semiprofessional, and managerial, 9 percent; agriculture, 9 percent; and unskilled, 7 percent.

ECONOMIC VALUE OF THE PROGRAM

The extent to which the public vocational rehabilitation program can improve the economic status of handicapped persons, increase the Nation's productive potential, and relieve some of the dependency upon public assistance was strikingly shown in 1959.

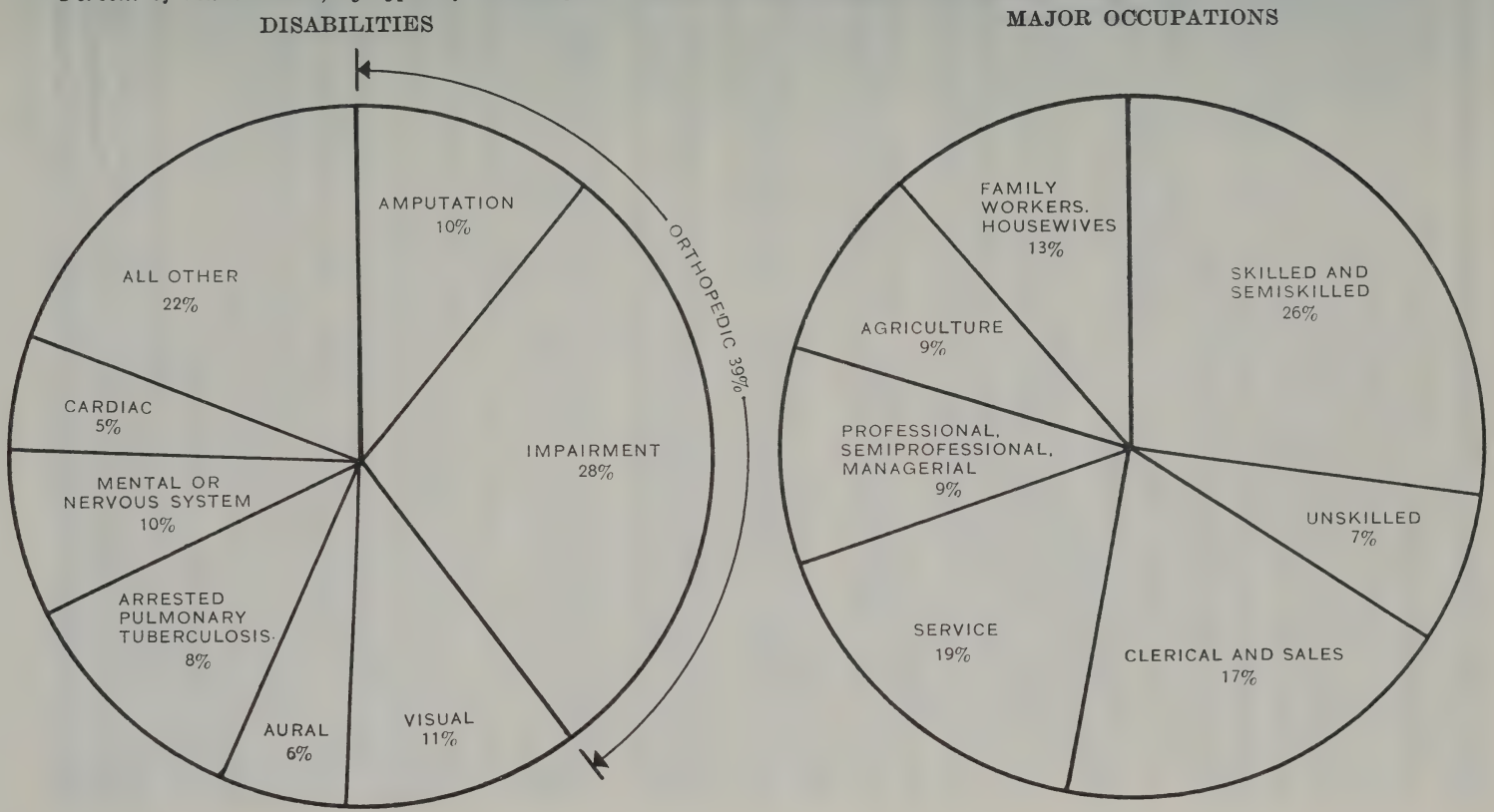
About 58,400 of the 80,739 handicapped persons prepared for and placed in employment during 1959 were unemployed when their rehabilitation began. The group that had been working at the time they were accepted for service were earning at the rate of $25 million a year and generally were employed in unsafe, unsuitable, or part-time work. In the first full year of employment for the entire group after rehabilitation, it is estimated that they will have earnings at the rate of $156 million.

Nearly 16,000 of those who were rehabilitated received public assistance at some time during the process, at the estimated rate of $15 million a year. The estimated total cost of the rehabilitation of these persons was about $14 million.

It is estimated further that those who were established or placed in employment through the public rehabilitation program will pay, during the remainder of their working lives, several dollars in Federal income taxes for every Federal dollar invested in their rehabilitation, so that the conversion of so many persons from tax consumers to taxpayers is of pronounced economic benefit to the Nation.

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 1959



New Law Marked a Turning Point in Rehabilitation

The signing of Public Law 565, in August 1954, was a notable turning point in the public rehabilitation program, which has been in existence since 1920. To all of those interested in or concerned with rehabilitation, it presented opportunities to strike out in new directions, to develop new services and expand tested ones, to prepare increased numbers of persons for work in rehabilitation, and to place State and Federal relationships on a much sounder basis.

Specifically, the legislation authorized measures by which disability and its handicapping effects are being attacked through—

1. Research into rehabilitation, which is opening new vistas of service to the disabled.
2. An improved structure of Federal grants to States in support of their basic programs, and to extend and improve services.
3. Incentives for greater unity of community, State, and Federal efforts to restore disabled persons to employment with its accompanying satisfactions.
4. New or expanded rehabilitation facilities which are providing services to disabled persons in or with greater convenience to their home areas.
5. A nationwide effort to increase, improve, and prepare professional personnel in all fields concerned with rehabilitation.

Research and Demonstration Projects Continue To Broaden Base for Rehabilitation Program's Future

A most dynamic part of the public rehabilitation program is in research and demonstration activities. In 5 years, the marked enthusiasm among State agencies, educational institutions, research groups, and other agencies directly or indirectly concerned with this phase of the program brought 469 requests for grants, of which 243 were approved through fiscal 1959. Projects are now being operated in 43 States, the District of Columbia, and Puerto Rico.

Applications for grants are considered by the National Advisory Council on Vocational Rehabilitation, which meets three times a year and advises the Director of the Office in awarding grants. The Council is composed of 12 members who are leaders in rehabilitation or allied fields, or public affairs. Miss Mary E. Switzer, Director of the Office, is Chairman of the Council.

The Council considers project applications from any or all of these standpoints: their potentialities for extending existing knowledge so that vocational rehabilitation problems common to all or several States may be resolved; the establishment of pilot or experimental attempts

to test or establish standards or methods for general application in the rehabilitation program; and the provision of special types of rehabilitation services so that their value may be tested and information developed on methods, techniques, and costs.

Thus there is provision for the development of facts and data by research; for projects to demonstrate applications of knowledge or to test it under actual conditions; and special demonstration projects, whose purpose is to accelerate services to certain categories of the disabled through prompt application of knowledge and experience acquired through research.

PROJECTS INCREASE SHARPLY

The curve of activity in research and demonstration projects has risen sharply. During 1955, the first year of these grants, 18 projects in 8 States received approval, with an expenditure of $298,960.

In 1959, 67 applications were approved, and the expenditure for the year—including $3,127,700 for continuation of 116 on-going projects previously approved—was $4,999,700.

Of the 67 projects approved in 1959, there were 54 in research and demonstration, and 13 were special demonstrations in selected categories of severe disability.

Few research programs administer a system of grants covering such a divergency of areas and types of projects. There is unique and challenging opportunity for the researcher and the practitioner alike to investigate and test a wide variety of medical, psychological, sociological, and vocational problems germane to handicapping conditions. These are projects looking into such major disabilities as blindness, epilepsy, orthopedic handicaps, deafness, speech and hearing difficulties, cerebral palsy, aging and chronic illness, disability complicated by emotional problems, and mental retardation. And the range of projects is wide.

PROJECTS IN A WIDE RANGE

For instance, the growing number of aged persons in our population is presenting new and difficult problems. A project initiated in 1958, providing special counseling and work adjustment training for disabled workers 60 years of age and older, has shown striking results in the rehabilitation of older people. Of 169 persons—140 male—accepted in a 12-month period, 126 were evaluated as employable, and 72 were placed in employment. Fifty-six of the total group were 60–64 years of age, 33 were 65–69, and the rest were 70 or older. Most of these persons had multiple disabilities, and all referrals to the project were through the State vocational rehabilitation agency. The techniques used in conducting the project have been firmly established, and it is now possible to duplicate it nationally as selected demonstrations.

A project approved in 1958 has developed a language abilities survey test for use in aphasia—the partial or complete loss of speech which can result from brain injuries, including strokes. There are preliminary indications that the new evaluation technique will greatly enhance the ability of aphasia victims to regain their speech.

Problems of far more than ordinary difficulty are attacked. In 1956 funds were provided to develop methods for rehabilitation of the deaf-blind, where intense difficulties are manifest. The results have been twofold: a seven-volume series of books has been published on the characteristics of deaf-blind persons and the methods and techniques whereby they may be taught communicative skills, so that they may have greater opportunity for rehabilitation. This includes a simplified and standardized communication system, which has since been adopted for international use by the World Council for the Welfare of the Blind.

Two other projects have independently developed (1) a scale of employability for handicapped persons, and (2) a standardized method for evaluating the residual ability of disabled persons to function physically, socially, emotionally, and vocationally. Both of these instruments will soon be tested nationally.

PROJECTS FOR THE AGING

One project approved in 1956 and one approved in 1957 were concerned with vocational rehabilitation services for elderly chronically ill and disabled persons. The first project, exploring the extent to which disabled persons in public and private nursing homes can be returned to community life and employment, is having remarkable success. To date, 27 homes with 1,282 patients have been studied. The goal of patient rehabilitation and discharge is replacing the goal of custodial care until death.

In the second study the general objective is to demonstrate and measure the extent to which financial, personal, and social dependency of patients aged 45 and over in public hospitals can be reduced by restoring their functional abilities, and by retraining, so that their vocational skills may be used within the hospital or in the community. Of the first group of 40 patients studied, 37 achieved their potential level of functional efficiency. Of these, 9 required continued hospital care, 3 were discharged to homes, and the remaining 25 were able to live comfortably outside the hospital with varying degrees of supervision.

SURGICAL RELIEF FOR NERVOUS DISORDERS

In June of 1957, funds were provided for support of a project concerned with a new surgical relief for Parkinsonism, a chronic and progressive neurologic disease, the main symptoms of which are tremor

and rigidity. The purpose of the OVR grant is to permit an organized multidiscipline team approach to this disorder, and similar disabilities. Emphasis on vocational rehabilitation of patients selected for this procedure has helped a large proportion of the males either to maintain their vocational status or return to work after up to 8 years of unemployment; similarly, women patients have been fully returned to their homemaking duties.

ADVANCES IN PROSTHETICS

Real progress in limb substitutes has not been achieved until recent years. Since 1957 the Office has sponsored several projects in artificial limbs and bracing. Working models have been developed employing pneumatic principles, and there is current research aimed at refining and simplifying the present models, to achieve lighter weight, greater responsiveness, and more precise controls.

AGRICULTURAL PROJECTS

A project approved in July 1956, to demonstrate the benefits of coordinating the services of State vocational rehabilitation agencies and the agricultural agencies in the rehabilitation of blind farmers, has had remarkable success and has gained national recognition. Several blind or partially sighted trainees have become farm owners or tenant farmers. One totally blind man purchased his farm outright with the assistance of a Farmers Home Administration loan. This is the first farm ownership loan to be made to a civilian blind person in the United States. Because of the success of this project, the U.S. Department of Agriculture and the Office are planning a nationwide program to acquaint State vocational rehabilitation agencies, State extension services, and local offices of the Farmers Home Administration with the opportunities this project makes available to blind or partially sighted farmers.

PROJECTS IN MENTAL HEALTH

Two projects among several approved in the general area of mental health are specifically concerned with employer attitudes and practices in the hiring of ex-mental hospital patients, and rehabilitation of hospitalized chronic schizophrenic patients. The former study has been completed and points up the tremendous problem of communication and the magnitude of resistance to attitudinal changes toward these persons. The second study is in its second operative year and its reports show that of the first 100 patients under study, 63 are now reestablished in the community. Treatment includes the use of tranquilizers; provision of realistic, attainable vocational and social goals by the State vocational rehabilitation agency; a social psychiatric program aimed at establishing and maintaining stable patient-patient and staff-patient relationships; and numerous provisions for blurring hospital-community boundaries.

EPILEPTICS AT WORK

A study being made of the work performance of a group of epileptics in a large community has shown in its initial phases that there is little basis for discrimination against epileptics by employers, on the grounds of absenteeism, accidents, or production, if proper medical controls are used. Recent medical reports indicate that it is possible to remove seizures as a barrier to employment in three-fourths of otherwise employable epileptics.

SELECTED DEMONSTRATIONS

The selected demonstration program, which started at the beginning of fiscal 1958, completed its second year in 1959, with 42 projects in 29 States. They are:

Occupational centers for mentally retarded	14
Work classification and evaluation centers for cerebral palsied	4
Work adjustment centers for disabled persons with emotional problems	5
Occupational adjustment services for epileptics	2
Services for the homebound:	
Industrial homework	2
Vocational adjustment in a community home-care program	1
Blind and visually handicapped: Optical aids clinics	10
Work evaluation of older disabled workers	2
Rehabilitation of the chronically ill	2

These projects are all in different States, with the exception of those for the mentally retarded, where two projects are in one large State.

REHABILITATION RESEARCH FELLOWSHIP PROGRAM

A research fellowship program was initiated by the Office in October 1957. Its purpose is to enlarge and enrich research resources in rehabilitation through development of competent research workers in professional fields which contribute to vocational rehabilitation.

In 1959, 10 awards were approved, bringing the total number to 22 fellowships in the medical, natural, behavioral, and social sciences as they relate to the public rehabilitation program.

State-Federal Relationships Under New Law Provide Incentives for Expansion of Services to Disabled

A notable accomplishment of the new legislation was the means for placing the State and Federal relationship in vocational rehabilitation on a sounder basis, through an improved financial structure, and through ways for Federal aid to reach more directly into communities.

Under the stimulus of new formulas for determining Federal allotments to the States in support of their basic programs, the States, in the aggregate, have increased their appropriations for rehabilitation

by 100 percent—from $13.9 million in 1954 to $27.8 million in 1959. The Federal appropriations for basic support of State programs increased at the same rate, from $23 million in 1954 to $45.5 million in 1959.

EXPANSION OF STAFFS AND SERVICES

With these enlarging funds the States were able to increase their agency staffs on a sound budgetary basis. Agencies that were woefully understaffed have been able to expand their operations and to reach more disabled people in more areas and to provide them with new and better services that emerge from a revitalized program.

At the end of 1959 the 90 rehabilitation agencies in the States and Territories had a total staff of about 4,200 persons, about 55 percent more than in 1954.

Of the 90 agencies, 18 were serving all the disabled, 36 were serving only the blind, and 36 serving all but the blind. The agencies were in each of the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

STATE PLANS

Under the 1954 amendments, the State plans, as prerequisites for Federal grants, have been greatly simplified and revised, so as to place greater responsibility on the States for administration of their programs.

During the ensuing 5 years, plans have been approved for new programs in the Virgin Islands and Guam, and Nevada has established a separate program for the blind. Massachusetts, New Jersey, South Carolina, and the District of Columbia have established independently operated rehabilitation agencies, as has Colorado, which recently combined its general and separate program for the blind into a single agency.

The statutory foundations for several plans have been strengthened. State agencies whose plans contain provisions for establishment of rehabilitation facilities now number 55, compared to 27 in 1955. In the same period, the number of States with plans providing for establishment of sheltered workshops grew from 33 to 49.

During 1959, in connection with the elevation of Alaska from territorial status to statehood, Public Law 86–70 added certain technical amendments to the Vocational Rehabilitation Act, in order to put the method of computing Alaska's allotment and Federal share percentages on the same per capita income basis used for her sister States. This law also provides that these amendments shall not become effective before 1962, and provides for a 5-year transition period to cushion the effects of a consequent substantial decrease in the Federal allotment to Alaska.

No special provisions will be needed in the case of Hawaii's achieveing of statehood, other than those assuring that her allotment and Federal share percentages will be based on the customary basis.

STATE PROGRAM DEVELOPMENT

The 5 years since 1954 have been a period of rapid growth and expansion for State vocational rehabilitation agencies. During this period a major need of State agency administrators was establishment of policies and procedures in many newly developed program areas.

The Office has worked closely with the Council of State Directors of Vocational Rehabilitation in identifying major problems common to a majority of the States and seeking to overcome these problems through cooperatively planned activities.

MORE STATE AND COMMUNITY FACILITIES

Part of the philosophy of rehabilitation expressed in Public Law 565 was that emphasis should be placed on bringing facilities for rehabilitation services to the disabled in or near their home areas.

In 1954 the country had an accumulation of knowledge about rehabilitation facilities, arising out of experience in the rehabilitation of veterans. The number of facilities where this knowledge could be used for the benefit of disabled civilians was, however, relatively small.

There were perhaps 50 communities in 1954 known to have laid groundwork for rehabilitation facilities, and to be attempting to surmount the difficulties of securing funds, medical supervision, and specialized staff.

In the ensuing 5 years there has been a striking growth in the number of rehabilitation facilities and centers. Some have been established purely as community ventures and with local funds. But most of their sponsors sought Federal aid, available through the new legislation and through amendments to the Hill-Burton hospital construction legislation, also amended in 1954 to include aid for construction of rehabilitation facilities.

EXPANSION GRANTS

As an immediate measure, the new legislation provided funds to be made available to States and communities over a period of 2 years, to help them with expansion of their programs. This period was subsequently extended, but it was permitted to expire June 30, 1958.

Under this provision, Federal funds of more than $2.7 million were expended on 259 community projects in the 4-year period. State and private resources added $1.35 million, and private agencies spent substantial sums above this amount. Only 13 percent of these expansion projects were entirely State conducted. The remaining 86 percent were conducted under other auspices, primarily by voluntary groups,

in cooperation with State agencies. More than 75 percent of the funds were used for establishment or expansion of rehabilitation facilities and sheltered workshops.

EXTENSION AND IMPROVEMENT GRANTS

The 1954 legislation has a provision for grants to State agencies for extension and improvement of existing services.

Such projects may be grouped into three classifications: (1) establishment of workshops and rehabilitation facilities, including optical aids centers; (2) improvement of specialized services to disability groups such as mentally ill, mentally retarded, homebound, epileptic, cardiac, and other disability groups; and (3) improvement of program administration, such as organization, supervision, medical consultation, special studies, and research.

A little more than $1 million was awarded in 94 grants to 55 agencies in 41 States during 1959, permitting these agencies to serve the handicapped better without diverting part of the Federal basic support funds for the progressive development of their continuing programs.

In 1955 there were 14 extension and improvement projects underway for establishment or improvement of facilities and workshops. In 1959 there were 32 such projects, bringing the 5-year total of extension and improvement projects for these purposes to 158, one-third of all extension and improvement projects that were undertaken.

The range of projects in the 5-year period, and the totals are:

	1955	*1959*	*5-year total*
(1) Establishment of rehabilitation facilities, workshops and visual aids centers	14	32	158
(2) Improved or specialized services to disability groups	21	16	112
(3) Improved program administration	33	46	206
Total	68	94	476

STATE-FEDERAL EXPENDITURES FOR FACILITIES AND WORKSHOPS

The State agencies also have discretionary powers to spend basic grant funds for rehabilitation facilities and workshops.

In the fiscal periods of 1955 through 1959, the total State and Federal funds expended for facilities and workshops under this provision, and for extension and improvement, amounted to almost $8 million, of which the Federal share was more than $5 million.

Interest in the development of community workshops continues undiminished. There is an ever-increasing awareness that the workshop—as a part of the rehabilitation process—is frequently an essential link between hospital bed and job. At the close of fiscal 1958, 1,431 disabled persons were employed in sheltered workshops—75 percent more than in 1954—and 1,682 were trained during the year, a figure double that of 1954.

AID UNDER HOSPITAL CONSTRUCTION LEGISLATION

One of the ways in which the number of rehabilitation centers and facilities has been increased is through funds available to States and communities for construction aid under the 1954 amendments to Hill-Burton legislation, which made construction for rehabilitation purposes eligible for such Federal aid.

Since passage of this amended legislation, 114 such projects were approved through 1959. Their total cost was $79,716,687, of which the Federal contribution was $21,146,715. These projects were located in 45 States, the District of Columbia, and Puerto Rico, and brought rehabilitation services to many thousands of disabled persons. The Office of Vocational Rehabilitation and the Office of the Surgeon General of the Public Health Service have joint authority for approval of the projects.

It is significant that 15 university medical schools received grants toward creation of rehabilitation facilities, which will help to spread assurance to many thousands of disabled persons that the medical profession is increasingly aware of modern rehabilitation services, and of where they are available within reasonable distances. Though the legislation has enabled a greater number of facilities and workshops, other legislation that has been proposed to broaden the scope of rehabilitation could increase the need still more, so that more establishments, oriented both medically and vocationally, and adequately staffed, would cover more of the country.

PROFESSIONAL ORGANIZATIONS AMONG CENTERS

With encouragement and assistance from the Office of Vocational Rehabilitation, the rehabilitation centers of the country have organized a professional group—the Conference of Rehabilitation Centers—devoted to development of higher standards and the collation and exchange of information. Another organization—the National Institute on Sheltered Workshop Standards—has been formed and works closely with the National Rehabilitation Association and the Association of Sheltered Workshops in the difficult and complicated task of devising better standards and operations of sheltered workshops. This task is being aided by research or demonstration grants to workshops and other facilities to find answers to common problems.

The Office has aided these groups in the production of guides, manuals, and reports of operations which have helped to meet the growing demand for planning materials for the varied kinds of facilities and centers which may be created.

DEMAND FOR SPECIAL FACILITIES

A continuing demand for specialized facilities is noted, and a considerable increase has been made in those designed for helping the

mentally retarded, and for those with speech and hearing difficulties.

While hundreds of new rehabilitation centers and facilities have been created and operated by voluntary agencies with the help of Federal funds, State agencies have also used Federal aid to create special State-operated facilities that can supply vocational training and other services that are especially needed by their rehabilitation clients. Now there are five such centers—in Virginia, West Virginia, Oklahoma, Iowa, and Pennsylvania.

Other communities have established facilities for special categories of disability. More than 15 facilities are in operation where the blind, particularly the newly blind, may learn the difficult adjustments of living without sight.

The national emphasis that is being placed on the relief and treatment of mental illness is reflected in rehabilitation facilities for the mentally ill. Several States are operating rehabilitation facilities in conjunction with mental hospitals, where patients' skills and aptitudes may be evaluated and appropriate training provided so that they may enter employment with increased confidence.

One State agency is now operating four of the kind of facility that has become known as "Halfway House," where ex-mental patients are learning how to live as part of the community at the same time that they are establishing themselves in employment.

Training of Qualified Personnel for All Phases of Program Is Expanded in Numbers and Objectives

The system of grants for expansion and improvement of the preparation of professional personnel in all fields concerned with rehabilitation of the disabled was expanded greatly in the 5-year period, under pressure of demand for qualified personnel and the need for financial assistance on the part of educational institutions.

Appropriations for the fifth year of operation were $4.8 million, a significant advance from the $900,000 available in 1955.

Teaching grants to colleges and universities numbered 197 in 1959, as contrasted with 176 in 1958, or with 77 in 1955, and totaled almost $2.4 million. These grants enabled educational institutions to employ additional faculty and to otherwise strengthen their instructional resources.

Traineeship grants to colleges and universities to provide scholarship assistance to trainees enrolled in basic or advanced courses in professional fields supplying personnel for rehabilitation activities gave assistance to 1,028 trainees in 1959, at a cost just over $2.4 million. For the first time the amount devoted to traineeships exceeded the

total for teaching grants. It is anticipated that this trend will increase. In 1955 this phase of training reached about 200 students, at a cost of $113,000.

Long-range objectives of the training grants program are to add to the supply of qualified personnel and to continue to enhance the competence of workers already engaged in rehabilitation services. The major fields in which training grants were made in 1959 were medicine, nursing, occupational therapy, physical therapy, prosthetics, psychology, rehabilitation counseling, social work, speech pathology, and audiology.

MEDICAL STUDENTS INDOCTRINATED

One of the foremost objectives of the training program is to give all medical students graduating from schools of medicine an indoctrination in rehabilitation philosophy and practice, so that they may incorporate principles of rehabilitation in approaching chronically ill or disabled patients. To that end, grants were made in 1959 to 25 medical schools to provide the necessary faculty and supporting services for orienting all medical students to rehabilitation.

Another primary goal is to increase the number of physicians who are qualified in the specialty of physical medicine and rehabilitation. During the 4 years the Office of Vocational Rehabilitation has carried responsibility for the support of training specialists in physical medicine, 255 physicians have received traineeships. On June 30, 1959, 105 were enrolled in residency training, as compared with 4 on June 30, 1955.

Because of the urgent need for rehabilitation counselors in State vocational rehabilitation agencies, rehabilitation centers, and other community rehabilitation programs, a large share of 1959 training funds was awarded for support of rehabilitation counselor training programs in 30 colleges and universities. Nearly $1.5 million were granted in this field in 1959, covering traineeships to about 500 students.

In April 1959, the participating universities made a study of the employment status of those who had been graduated since the beginning of the program. Of 552 graduates from whom information was available, 60 percent were working in State vocational rehabilitation agencies or community organizations. Twenty-one percent had gone to nonrehabilitation work. Five percent were unemployed and seeking work. Ten percent were continuing graduate study beyond the master's degree. Four percent had left the labor market because of extended illness, military service, or homemaking responsibilities.

Grants were made to 12 universities in 1959 to assist them in expanding and strengthening the training of speech pathologists and audiologists in preparation for work with adults, particularly in the

areas of organic voice problems and hearing loss. Traineeships were provided for 42 graduate students.

TRAINING IN PROSTHETICS

Training courses in the design and application of artificial limbs and other prosthetic devices, and functional bracing, were continued at 2 universities during the year, reaching about 1,000 physicians, physical and occupational therapists, prosthetists, and rehabilitation counselors.

A beginning has been made in the incorporation of prosthetics into the medical school curriculum and into the training of residents in the medical specialty fields of orthopedics and physical medicine. Initial work has been done in a new course on below-the-knee amputations, based on findings of research efforts in that area, and courses on functional bracing of the upper extremities have been held.

Other short-term training courses have been held for rehabilitation personnel for the purpose of raising the level of competence of those already in the field. In 1959, 96 courses were conducted which reached slightly more than 2,500 individuals. These courses were concerned with rehabilitation of the mentally retarded and cerebral palsied, discharged mental hospital patients, laryngectomies, placement of blind persons in competitive employment, vocational adjustment of the rural blind, dental care of the chronically ill or disabled, and social and vocational adjustment of the deaf.

Total of Federal Grants

The total of Federal grants in the public rehabilitation program in 1959 was $55,928,771.

This included grants to States and territories for basic support of their programs, in the amount of $45,499,023, about $4.4 million more than in 1958. This sum was matched by some $27.8 million in State funds, almost 12 percent more than in 1958.

Federal grants to States for extension and improvement of programs amounted to $1,030,881, which was matched by $343,624 in State funds.

Research and demonstration awards during the year amounted to $4,599,700, of which $1,472,000 was for first-year support of new projects, and $3,127,700 for continuation of earlier projects.

Training grants amounted to $4,799,167 for the period.

Rehabilitation of the Aging Is Aided by Research and New Services as Proportion in Population Increases

For more than a dozen years there has been a steady increase each year in the number of older persons rehabilitated into gainful em-

ployment and in the percentage of the total rehabilitations they represent. This has come out of the growing proportion of middle aged and older persons in our population and the enlarging effort to provide them with specialized services. Fifty million people in this nation are 45 years old or more. A 12th of the population is 65 years old or more, among whom chronic illness is highly prevalent.

As far back as 1945, more than 8,300 persons who were more than 45 years of age were rehabilitated in the public program. This was 17.5 percent of the total rehabilitated in the year. In 1950, almost twice that number and 24 percent of those rehabilitated were in that age bracket. In 1959, an estimated 31 percent of the 80,740 disabled persons rehabilitated into employment were more than 45 years of age. Further increases, both in numbers and percentages, may be expected.

STATES EMPHASIZE PROGRAMS FOR AGING

The substantial advances that have been made have come out of the growing emphasis by State rehabilitation agencies in serving older and disabled workers, and from the spending of more funds for those purposes. There are other factors, such as research and demonstrations of new techniques; the extension and improvement of knowledge of the productive capacity of the elderly; increased facility and skill for meeting the employment needs of the group; and development of special community resources for them.

Twenty-five of the 243 research or demonstration projects that have been approved are concerned with the older disabled worker. The financial assistance provided by the Office for these projects is about $1.5 million. And, as required by law, the originators and sponsors of these projects have invested approximately $1 million of their own funds in these activities, demonstrating the concern that other than Federal agencies have for this aspect of the rehabilitation program.

Indication of the emphasis being given to rehabilitation of older persons by State vocational rehabilitation agencies is the increased expenditure for that purpose.

In 1955 the total rehabilitation expenditure of State agencies was $38.6 million, of which an estimated $9 million was spent for rehabilitation of disabled persons over 45 years of age.

In 1959 the State agencies spent $73.3 million, of which an estimated $20 million was expended on this group.

REHABILITATION AND OASI

Disability provisions in the Social Security amendments of 1954 and 1956 have dramatically called attention to the rehabilitation needs of older people.

Among other things, they required the Bureau of Old-Age and

Survivors Insurance to enter into agreements with State governments to make determinations of disability among applicants for the "freezing" of disability benefit rights during the period of disability, for cash disability insurance benefits, children's disability benefits, and for evaluation of the possibilities for rehabilitation among the applicants. In all States except New York, Washington, North Carolina, and Oklahoma, these determinations are made by the State rehabilitation agencies. Since 1954, these agencies have reviewed more than a million applications for disability payments and freeze benefits.

During 1959, the State agencies made approximately 244,000 initial disability determinations, screened almost 376,000 applicants for their rehabilitation potential, and accepted more than 39,000 for further consideration of possible provision of rehabilitation services.

CONFERENCE ON AGING

Indicative of the greater nationwide concern for the problems of the aging population is passage in 1959 of the White House Conference on Aging Act. It directs the Secretary of Health, Education, and Welfare to plan such a Conference, with cooperation of other Federal departments and of an Advisory Committee, which has been appointed. The Conference dates are set for January 9–13, 1961, subject to the call of the President.

One of the areas to be explored at the Conference is rehabilitation, and the Office is developing its plans for assisting the States in conducting surveys of their older populations, so that reports may be made to the Secretary prior to the Conference, along with recommendations for action.

MENTAL ILLNESS

One of the areas of disability that is getting increased emphasis in the public program of rehabilitation is mental illness.

Better coordination of movement toward a common goal has been effected by working conferences in all nine regions, attended by staff from State mental hospitals and mental health programs, State rehabilitation agencies, and the Office.

Twenty-seven research and demonstration projects directed toward vocational rehabilitation of the mentally ill have been initiated in the 5 years since Public Law 565 was enacted including operation of "Halfway Houses." In large part these projects have been the outgrowth of stimulation provided by these regional conferences. State rehabilitation agencies have exhibited increasing interest in moving beyond established patterns of working with the mentally disturbed. Several States are operating fully equipped rehabilitation facilities on hospital grounds, where patients' skills and aptitudes may be evaluated for training.

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MENTALLY RETARDED

In recent years there has been increasing realization that the mentally retarded have considerable potential for employment.

In order to demonstrate this potential, one of the early projects to be initiated was in New York City in 1955, to show that special sheltered workshop training could successfully rehabilitate mentally retarded young adults whose employment had previously been considered impossible.

As usable techniques emerged from the project, immediate steps were taken to make them available over the Nation. By the end of fiscal 1959 there were 14 occupational training centers in 13 States in which mentally retarded youths were being trained in useful occupations.

MANY PHASES OF RETARDATION EXAMINED

Other projects go into the many aspects of rehabilitating the mentally retarded. The possibilities for mentally retarded youths with muscular, orthopedic, and emotional complications to benefit by occupational training have been studied. Employer attitudes toward the mentally retarded are being looked into. Another project will demonstrate and evaluate a cooperative program of academic school work and concurrent work experience in the vocational rehabilitation of mentally retarded high school seniors. Another is investigating the relationships of personal characteristics and educational experience of adult retarded persons discharged from institutions, to their vocational and social adjustment.

Surveys have shown that mental retardation is not increasing among our population. The proportion of young persons with such deficiencies remains about constant. But as the population grows, the total number of persons requiring these specialized services is enlarged, so that special facilities using expanded knowledge are required.

Services to the Blind

Much activity in enlarging and improving services to the blind during 1959 stemmed from the work of an ad hoc advisory committee which met near the beginning of the fiscal year.

A need to focus more directly on specific problems of individual blindness was pointedly described to an assembly of State directors of agencies for the blind, State directors of general rehabilitation agencies, representatives of national and local voluntary groups, and representatives drawn from coordinators in the rehabilitation counselor training program.

The committee gave expression to a growing need for training in-

structors in methods of teaching blind people to travel and to get about on their own, and asked for more emphasis on specifics regarding blindness in the formal training of rehabilitation counselors.

Steps were taken to translate these recommendations into action during 1959. The American Foundation for the Blind joined with the Office in helping to activate a course in placement counseling for the blind at Southern Illinois University. Courses are given 3 times a year, and each will train about 15 persons.

A national conference—also in conjunction with the foundation—was held during the year to lay the groundwork for instruction of blind persons in mobility and such a course will be initiated in the coming year.

The high interest in blindness and the personal problems of the blind is reflected in the larger sums made available for their rehabilitation. Federal grants for agencies for the blind have risen from $2.4 million in 1954 to more than $5 million in 1959.

The States have responded by increasing their funds for agencies for the blind from $1.26 million to more than $2.6 million in the same period.

Thus the State-Federal funds available to agencies for the blind have more than doubled, and it is estimated that agencies serving both blind and sighted persons spent well over $2 million on rehabilitation of the blind.

VENDING STANDS

In 1959, as in each of the preceding years since the passage of Public Law 565, vending stand operations for the blind set new records in total numbers of vending stands, of operators, of gross sales, and of net earnings for vending stand operators. Since 1954, gross sales have grown from $21,972,549 to $34,752,954; the number of operators from 1,659 to 2,111; the number of stands from 1,599 to 1,982; and the average annual earnings per operator from $2,193 to $3,354.

During the year, a cooperative project of the Office with the President's Committee on Employment of the Physically Handicapped, the Veterans' Administration, and the Department of Commerce, explored ways and means of stimulating the establishment of more vending stands on Federal property. As one result, General Services Administration undertook an active program to find more vending stand locations on property under its jurisdiction. This accelerated program was beginning to bear fruit at the end of the year.

Small Business

Small business enterprises have been useful for years as placements for severely handicapped people. Increased interest is being shown

by State agencies in self-employment, small business enterprises, and in finding new self-support opportunities for handicapped people through industrial subcontracting, and the manufacture and sale of products by the homebound. Research and studies of marketing and of appropriate types of businesses are being conducted.

As a measure of growth of small business activities in the rehabilitation program, State expenditures for tools, equipment, or initial stocks and supplies for these endeavors have grown from $823,000 in 1955 to more than $2 million in 1959.

A 1959 sample survey of 79 small businesses revealed that more than three-quarters of the operators were in the original enterprises they had started, and that 65 percent had been in business for 6 years or more. Forty-two percent of the operators were more than 45 years of age, and 75 percent had had no wage earnings at the time they applied for rehabilitation services.

Professional Organizations

Further evidence of the impact of the 1954 amendments to the Vocational Rehabilitation Act is in the professional recognition given the field of rehabilitation. This was emphasized in 1959 by the formation of a new division within the American Psychological Association titled "National Council on Psychological Aspects of Disability." Open only to members of the American Psychological Association, it came as an outgrowth of a workshop conducted by the association under Office auspices, devoted to exploration of the role of psychology and psychologists in rehabilitation. This report has just been published by the association under the title of "Psychology and Rehabilitation."

This development is one of a chain of events occurring over the past 5 years, in which there has been acceptance of an active role in the rehabilitation process by professional groups, induced by an awareness of the importance of the rehabilitation program.

The year before, two significant events occurred within professional organizations. The National Rehabilitation Association, recognizing the pivotal role of the rehabilitation counselor in the total rehabilitation process, authorized the development of a "Division of Rehabilitation Counseling." Just prior to this, the American Personnel and Guidance Association also authorized the establishment of a Division of Rehabilitation Counseling.

Cooperation With Other Programs

Ascendance of the public rehabilitation program to an integrated part of the Nation's resources for health and welfare has been rapid

in the 5 years since the program has been operated under Public Law 565. State vocational rehabilitation agencies, in line with the emphasis that the new legislation placed on their cooperative relationships with other agencies toward rehabilitating disabled persons into employment, have been active in developing such relationships with the public employment services, public assistance agencies, and other public and private organizations.

In recent years, State vocational rehabilitation agencies and State public assistance programs have been able to make more intensive joint efforts toward rehabilitation of disabled parents who receive aid to dependent children, and also of recipients of other types of assistance.

The effectiveness of these efforts increases each year in the number of persons rehabilitated through the State-Federal program who received public assistance at some time during the course of their rehabilitation. There was about a 40-percent increase in this number from fiscal year 1954 through fiscal year 1959—from about 11,000 to about 16,000.

International Activities

The growing recognition of the worth of rehabilitation services among all the peoples of the world, and the leading role of the United States in world rehabilitation affairs is shown in the greater number of world rehabilitation conferences that are being held, and in the number of foreign workers who seek assistance and training in the United States.

The Office prepared or assisted in the programs arranged for 116 foreign vocational rehabilitation workers from 34 countries who were in this country to study or observe the program in 1959. This is almost 50 more than those trained in 1954, and it is particularly significant that in the 5-year period the number of long-term trainees has increased more than 100 percent, from 20 in 1954 to 42 in 1959.

Many Federal, State, and local agencies, as well as voluntary organizations, cooperated in the training of foreign visitors. The United Nations, International Labor Organization, World Health Organization, and, for the first time, the Organization of American States, sponsored grants to some of the trainees; others were financed by voluntary agencies or by personal funds.

A survey of rehabilitation activities in 37 countries was made for the Senate Subcommittee on Reorganization and International Organization.

Table 1.—*Number of referrals and cases, by agency, fiscal year 1959*

Agency [1]	Referrals				Cases				
	During fiscal year			Remaining at end of year [3]	During fiscal year				Remaining at end of year [6]
	Total	Accepted for services	Not accepted for services [2]		Total active load (receiving services)	Closed from active load			
						Rehabilitated	*After* rehabilitation plan initiated [4]	*Before* rehabilitation plan initiated [5]	
United States, total	373,024	121,559	128,630	122,835	280,384	80,739	9,494	19,040	171,111
Alabama	7,555	3,079	614	3,862	8,515	2,363	238	417	5,497
Alaska	578	147	171	260	349	45	16	35	253
Arizona:									
General	1,802	733	620	449	1,318	458	72	71	717
Blind	121	62	20	39	158	26	6	8	118
Arkansas	7,589	2,517	3,482	1,590	5,062	2,169	234	147	2,512
California	27,049	6,371	16,319	4,359	13,496	1,790	617	2,144	8,945
Colorado:									
General	2,823	1,164	778	881	2,404	823	185	83	1,313
Blind	397	43	49	305	162	33	4	5	120
Connecticut:									
General	2,299	1,479	318	502	3,975	906	273	311	2,485
Blind	184	95	55	34	197	72	12	0	113
Delaware:									
General	1,315	582	463	270	1,270	500	19	71	680
Blind	50	26	21	3	51	18	10	4	19
District of Columbia	3,649	792	2,175	682	1,731	324	70	140	1,197
Florida:									
General	14,284	4,306	5,619	4,359	8,558	2,760	370	517	4,911
Blind	3,987	405	2,296	1,286	1,041	271	80	41	649
Georgia	20,888	6,309	6,129	8,450	12,351	5,628	312	473	5,938
Guam	222	55	33	134	55	0	0	5	50
Hawaii:									
General	1,156	256	463	437	596	189	37	10	360
Blind	27	12	5	10	78	16	8	0	54
Idaho:									
General	1,855	424	752	679	872	256	29	22	565
Blind	39	23	14	2	49	13	4	1	31
Illinois	13,703	6,090	4,245	3,368	13,779	3,793	256	1,290	8,440
Indiana:									
General	2,656	1,258	652	746	3,878	1,187	109	177	2,405
Blind	193	74	53	66	246	45	30	27	144
Iowa:									
General	5,598	1,546	1,948	2,104	3,792	1,176	169	235	2,212
Blind	439	52	236	151	151	26	10	16	99
Kansas:									
General	3,926	1,336	1,247	1,343	2,839	904	104	193	1,638
Blind	353	104	87	162	249	66	8	17	158
Kentucky	6,829	1,883	2,570	2,376	3,954	1,240	111	339	2,264
Louisiana:									
General	5,006	2,782	1,270	954	7,239	1,771	189	572	4,707
Blind	798	175	145	478	582	110	6	10	456
Maine:									
General	1,840	537	637	666	1,311	333	61	130	787
Blind	169	72	66	31	161	46	9	31	75
Maryland	5,189	2,329	1,209	1,651	5,397	1,342	93	420	3,542
Massachusetts:									
General	5,811	2,048	1,335	2,428	4,562	1,359	125	213	2,865
Blind	360	120	29	211	362	61	16	11	274
Michigan:									
General	9,625	3,680	2,359	3,586	9,520	2,644	435	226	6,215
Blind	385	207	102	76	446	83	39	58	266
Minnesota:									
General	6,128	1,495	1,874	2,759	4,791	1,173	180	128	3,310
Blind	850	120	390	340	426	82	22	24	298
Mississippi:									
General	3,510	1,807	779	924	3,240	1,250	70	150	1,770
Blind	856	350	352	154	908	288	29	20	571
Missouri:									
General	7,397	2,177	2,664	2,556	4,477	1,511	197	256	2,513
Blind	889	195	403	291	570	163	19	24	364
Montana:									
General	1,916	577	693	646	1,345	404	10	34	897
Blind	384	16	295	73	62	19	2	4	37
Nebraska:									
General	1,644	699	333	612	2,278	623	81	96	1,478
Blind	208	74	89	45	162	62	4	1	95

Table 1.—*Number of referrals and cases, by agency, fiscal year 1959*—Con.

Agency [1]	Referrals				Cases				
	During fiscal year			Remaining at end of year [3]	During fiscal year				Remaining at end of year [6]
	Total	Accepted for services	Not accepted for services [2]		Total active load (receiving services)	Closed from active load			
						Rehabilitated	*After* rehabilitation plan initiated [4]	*Before* rehabilitation plan initiated [5]	
Nevada:									
General	1,087	135	802	150	267	89	22	9	147
Blind	42	17	11	14	46	11	1	3	31
New Hampshire:									
General	964	340	83	541	806	170	80	28	528
Blind	38	17	13	8	74	10	6	4	54
New Jersey:									
General	6,118	2,102	2,416	1,600	4,501	1,316	212	457	2,516
Blind	988	221	342	425	554	200	33	24	297
New Mexico:									
General	1,365	272	614	479	542	275	12	10	245
Blind	218	38	65	115	96	30	6	3	57
New York:									
General	26,151	8,688	8,364	9,099	16,975	5,278	594	995	10,108
Blind	1,067	432	216	419	859	226	53	69	511
North Carolina:									
General	11,186	5,811	3,907	1,468	13,073	4,369	451	623	7,630
Blind	1,327	530	506	291	1,538	397	40	136	965
North Dakota	1,742	439	493	810	1,083	309	24	34	716
Ohio:									
General	6,580	2,217	1,565	2,798	4,779	1,508	135	187	2,949
Blind	545	253	134	158	767	130	39	50	548
Oklahoma	4,609	2,841	922	846	7,846	1,560	171	926	5,189
Oregon:									
General	6,936	1,057	3,197	2,682	2,672	629	113	230	1,700
Blind	233	51	71	111	158	39	4	6	109
Pennsylvania:									
General	24,827	9,062	7,409	8,356	20,277	5,878	1,047	1,593	11,759
Blind	2,279	445	1,216	618	1,103	239	52	92	720
Puerto Rico	7,394	1,723	1,436	4,235	4,472	970	59	267	3,176
Rhode Island:									
General	1,918	858	433	627	1,992	633	81	6	1,272
Blind	103	75	6	22	233	44	18	13	158
South Carolina:									
General	5,918	1,931	2,384	1,603	4,916	1,502	107	254	3,053
Blind	349	136	150	63	297	94	4	18	181
South Dakota:									
General	1,197	353	185	659	965	237	20	52	656
Blind	324	38	159	127	103	22	4	2	75
Tennessee:									
General	11,465	3,414	4,029	4,022	6,766	2,302	203	306	3,955
Blind	1,300	309	460	531	839	245	16	42	536
Texas:									
General	11,881	3,489	2,875	5,517	10,259	2,219	149	683	7,208
Blind	834	341	216	277	796	354	20	15	407
Utah	1,621	607	263	751	1,520	432	43	20	1,025
Vermont:									
General	1,289	340	443	506	856	210	73	65	508
Blind	61	28	21	12	76	19	9	5	43
Virginia:									
General	16,416	4,089	8,153	4,174	8,458	3,072	156	775	4,455
Blind	500	139	154	207	284	95	22	8	159
Virgin islands	137	53	6	78	84	23	2	6	53
Washington:									
General	4,043	1,634	1,316	1,093	4,103	960	171	447	2,525
Blind	211	72	88	51	196	50	7	11	128
West Virginia	15,460	4,401	4,112	6,947	10,388	2,665	136	1,279	6,308
Wisconsin:									
General	6,821	1,585	2,616	2,620	5,079	1,276	92	61	3,650
Blind	157	108	26	23	230	67	10	11	142
Wyoming	792	185	295	312	441	164	17	8	252

[1] In States with 2 agencies, the State division of vocational rehabilitation 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 yet determined.

[4] Closed after rehabilitation plan was initiated; 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, increase in degree of disability, loss of contact, etc.

[6] In process of rehabilitation on June 30, 1959.

Table 2.—*Vocational rehabilitation grants, 1959, State divisions of vocational rehabilitation*

State or Territory	Support grants	Extension and improvement grants	Total
Total	$40,545,007	$949,466	$41,494,473
Alabama	1,531,192	1,875	1,533,067
Alaska	104,771	5,000	109,771
Arizona	335,352	9,687	345,039
Arkansas	1,177,621	15,076	1,192,697
California	2,628,598	118,712	2,747,310
Colorado	261,702	13,700	275,402
Connecticut	312,088	15,363	327,451
Delaware	141,234		141,234
Florida	1,303,435		1,303,435
Georgia	2,222,889	30,007	2,252,896
Hawaii	146,128	3,000	149,128
Idaho	159,392		159,392
Illinois	1,743,698	80,000	1,823,698
Indiana	463,632	28,740	492,372
Iowa	670,606	21,619	692,225
Kansas	409,541	9,565	419,106
Kentucky	457,750	25,923	483,673
Louisiana	1,008,063		1,008,063
Maine	230,487	8,041	238,528
Maryland	526,783		526,783
Massachusetts	668,207	33,192	701,399
Michigan	1,174,858	66,536	1,241,394
Minnesota	815,797	22,515	838,312
Mississippi	528,291		528,291
Missouri	658,809	13,891	672,700
Montana	164,572	5,679	170,251
Nebraska	285,808	8,679	294,487
Nevada	37,311		37,311
New Hampshire	90,794	3,600	94,394
New Jersey	847,847	35,169	883,016
New Mexico	112,793		112,793
New York	2,942,975	125,178	3,068,153
North Carolina	1,388,957	2,738	1,391,695
North Dakota	287,058	5,491	292,549
Ohio	632,626	24,967	657,593
Oklahoma	1,047,343	19,416	1,066,759
Oregon	539,009	12,445	551,454
Pennsylvania	3,158,663	66,015	3,224,678
Rhode Island	215,654	7,350	223,004
South Carolina	664,029	9,000	673,029
South Dakota	196,245	4,786	201,031
Tennessee	1,414,268		1,414,268
Texas	1,361,629	26,745	1,388,374
Utah	213,154	7,256	220,410
Vermont	153,330	5,000	158,330
Virginia	1,091,699		1,091,699
Washington	711,072	15,160	726,232
West Virginia	1,134,578	16,850	1,151,428
Wisconsin	1,194,453	25,500	1,219,953
Wyoming	109,989		109,989
Guam	20,565		20,565
Puerto Rico	595,910		595,910
Virgin Islands	15,778		15,774
District of Columbia	235,974		235,978

Table 3.—*Vocational rehabilitation grants, 1959, State commissions or agencies for the blind*

State or Territory	Support grants	Extension and improvement grants	Total
Total	$4,954,016	$81,415	$5,035,431
Arizona	57,920		57,920
Colorado	71,996	566	72,562
Connecticut	37,880	3,840	41,720
Delaware	36,963	5,000	41,963
Florida	427,000		427,000
Hawaii	27,863	2,000	29,863
Idaho	14,621		14,621
Indiana	57,033		57,033
Iowa	61,774	2,248	64,022
Kansas	125,785	4,189	129,974
Louisiana	154,819		154,819
Maine	68,647		68,647
Massachusetts	155,330	4,378	159,708
Michigan	114,955		114,955
Minnesota	123,865	5,749	129,614
Mississippi	266,898		266,898
Missouri	216,357		216,357
Montana	47,158		47,158
Nebraska	77,242	3,702	80,944
Nevada	4,715	5,000	9,715
New Hampshire	31,200		31,200
New Jersey	192,136	1,665	193,801
New Mexico	48,707		48,707
New York	392,302	5,250	397,552
North Carolina	443,421		443,421
Ohio	262,629	16,721	279,350
Oregon	77,960		77,960
Pennsylvania	378,862		378,862
Rhode Island	45,164		45,164
South Carolina	58,424		58,424
South Dakota	52,500	1,200	53,700
Tennessee	265,812		265,812
Texas	288,846	16,907	305,753
Vermont	30,786		30,786
Virginia	79,235		79,235
Washington	65,907		65,907
Wisconsin	91,304	3,000	94,304

Saint Elizabeths Hospital

THE CARE OF THE PATIENTS in line with modern and progressive standards has continued. During the year three of the key medical personnel, namely, the Assistant Superintendent, one of the Clinical Directors, and one of the Chiefs of Service retired after 30 years' service to accept more remunerative positions with State governments. Institutional psychiatry is becoming a more highly competitive field, with the States offering more than the Federal Government; the result has been a lack of success in recruiting to fill the vacant positions. Indeed, there are now 10 vacancies for staff physician. Had it not been for the devotion of the medical staff, the ward personnel, and the other employees of the hospital, it would have been impossible to maintain anywhere nearly adequate care of the patients. As it is, the general health of the patients has continued good and a reasonable degree of success has been achieved in maintaining the high standards of care to which the hospital is dedicated.

The so-called tranquilizing drugs have continued to prove their usefulness as palliatives rather than as cures, but their use has resulted in a steadily increasing number of patients who have been able to leave the hospital, at least for a time.

Further progress can be noted in the development of so-called open wards and in patient self-government. Every effort is made to achieve an atmosphere of permissiveness and friendly interest, and although some patients occasionally take advantage of this the results on the whole have been beneficial. The load of aged and infirm patients continues to increase, thus throwing additional responsibilities on an already overworked staff and ward personnel. Electroshock has been used sparingly, and no lobotomies have been performed.

During the year, 1,607 patients were admitted and 1,513 discharged. Of the latter, 1,034 were released to the community or to other insti-

tutions, that is, 64.3 percent of the admissions. It appears that some stability of discharges and admissions is being achieved. During the 3-year period just closed as compared with the preceding 3-year period, there was an increase of 18.9 percent of admissions and an increase of 22.4 percent of discharges. During the year the patients on the rolls increased from 7,466 to 7,511, whereas those in the hospital decreased by 65, that is, from an average of 6,965 to 6,899. On the other hand, the readmission rate, that is, the rate of patients admitted who have previously been cared for in this or similar hospitals, has continued to rise, amounting to 31.3 percent for the year just closed. Of the admissions, 94, or 5.8 percent, were under 21 years of age.

The writ of habeas corpus, that "palladium of our liberties," continues to be utilized by a certain segment of our patients. During the year the hospital was ordered to show cause in 72 cases and to produce the patient under a writ of habeas corpus in 61 cases or a total of 133, by far the largest number yet. That a considerable number of these proceedings was frivolous is suggested by the fact that only three patients were discharged on habeas corpus. This right of the patient is duly recognized despite the fact that an inordinate amount of the physicians' time is demanded in preparing answers to writs and to testifying in court.

The courts are showing an increasing amount of interest in the mental state of persons charged with crime and the admission rate in this group continues to rise—154 as compared with 145 last year. Of these, 41 as against 21 last year were admitted after acquittal by reason of insanity. Twelve men were admitted under the so-called Miller (sexual psychopath) Act. It has been necessary during this year to maintain a waiting list for prisoner patients, much to the regret of the hospital. Fortunately, the courts have in general been quite understanding of the difficulties of space under which the hospital works. It is expected that the new maximum security building, the John Howard Pavilion, will be ready for use early in the fall and from that time on a waiting list should be unnecessary. Various other agencies of government, notably the Health Department, the Public Welfare Department, and the Rehabilitation Division of the District, and the Veterans Administration have all been most cooperative. Further plans for even closer cooperation are being worked out.

As in previous years the hospital had the pleasure and the inspiration of being visited by numerous persons from other countries, as well as by many in the United States. Indeed, no less than 23 foreign countries were represented among our visitors this year. An active program in education has been carried on and even further developed during the year, not only in the field of psychiatry but in those of psychology, social work, general medicine, surgery, pathology, occupational therapy, nursing, and clinical pastoral work. The three local

medical schools, as usual, have utilized the facilities of the hospital for the training of their students, and inservice training in a number of fields has been carried on. The hospital continues to be the only public mental hospital in the country which is approved for rotating internship. During the year full accreditation was received from the Joint Commission on Accreditation of Hospitals.

Mention was made in last year's report of the Joint National Institute of Mental Health–Saint Elizabeths Hospital Research Project. This project is now well under way, and the enthusiasm of the participants, both from the Institute and the hospital, continues unabated. A number of significant projects, both clinical and laboratory, are being carried on.

Division of Clinical Services

CLINICAL BRANCHES

The general care and treatment of the patients is carried on by three clinical branches, each of them subdivided into services. A Medical and Surgical Branch is charged with the acute medical and surgical treatment of all patients and emergency attention to employees. Shortage of professional staff continues to be the single most pressing problem in operating the hospital. The present standards of salaries are insufficient to compete with what is now being offered by many of the States, so that recruiting has become almost impossible. The increased alertness of the patients brought about by the so-called tranquilizers has laid much greater responsibility upon the ward and medical personnel with the result that the shortages which existed have become even more noticeable and pressing. General crowding of the hospital in spite of the slight drop in the population is considerable, averaging about 7½ percent, but there are areas in which the crowding is considerably greater and in some areas the patients are cared for under substandard circumstances. The program of replacement is underway but is inevitably slow. All the buildings erected since 1944 have been replacements rather than additions.

During the year, through agreement with the District of Columbia Health Department, arrangements were made for a representative of the Health Department to be present at the hospital during the week to grant permits for the admission of voluntary patients. This has removed one of the obstacles to the use of the voluntary admission law, and it has been much appreciated by the families and the patients themselves. The general therapeutic program has continued on the wards. Open wards, greater freedom of patients, and more self-government have been developed. Group therapy has been much used, together with a moderate amount of individual psychotherapy to the extent permitted by the time available to the physicians. In

addition to the recreational therapy facilities offered by the hospital, various volunteer groups have been most faithful in visiting the wards and providing entertainment for the patients. The increasing cooperation with the various community and official agencies has already been noted.

MEDICAL AND SURGICAL BRANCH

The work of this Branch continues to be unusually varied and of high efficiency. The Medical and Surgical Building itself, now over 30 years old, is approaching obsolescence, and a study is being planned looking toward replacement. There were 1,986 admissions to this Branch during the year and 88,812 hospital days, together with 56,476 clinical visits. The efficiency of the pharmacy has been greatly improved and the personnel expanded. The same may be said of the dental division. During the year the hospital has been very fortunate in obtaining for the Medical and Surgical Branch, as well as for the laboratory, a very considerable amount of surplus property in excellent condition. Work is underway looking to an exploration of a more effective employee health program and also to expanding the research program. With the increasing use in medicine of radioisotopes, a radiation officer has been appointed.

NURSING BRANCH

In spite of the general shortage of graduate nurses and indeed a general shortage of ward personnel, the Branch has done excellent work in the care of patients. An active program of inservice training is carried on, and 14 schools of nursing affiliate with the hospital. In addition, a number of Navy Hospital corpsmen are trained by the Nursing Branch. It is a matter of regret that space does not permit elaboration of the fine work done by this important, nay essential, Branch.

PSYCHOTHERAPY BRANCH

This Branch provides services to certain selected patients in the field of individual and group psychotherapy, psychodrama, and dance and art therapy. It is of interest to note that the coming year will mark 20 years of psychodrama at Saint Elizabeths Hospital. The hospital was the first public mental hospital in the United States to take up this very important and significant form of group psychotherapy. The psychodramatist has been in considerable demand in the field of public relations and of training various groups outside of the hospital.

PSYCHOLOGY BRANCH

Four projects are underway. During the year one doctor's thesis and two master's theses were undertaken by students in the Branch. A very active teaching and research program is carried on. An

increase of 10 percent in the tests given to patients was noted during the year.

RECREATIONAL THERAPY BRANCH

This Branch conducts a very active program, providing ward parties and entertainments both on the wards and in the Red Cross Building and Hitchcock Hall. The Commanding Officer of the Bolling Air Force Base has continued the arrangement to have patients taken to the swimming pool during the summer season several days a week. This has been greatly appreciated by the patients, particularly as the hospital does not yet have a swimming pool. Many dances have been arranged for the patients and a chorus as well as choirs have been conducted by a member of the staff of the Branch. Bands, orchestras, and sports have likewise been arranged.

VOLUNTEER SERVICES BRANCH

This Branch accomplishes much for the benefit of the hospital. During the year, 188 volunteers contributed well over 12,000 hours of service, including groups with an average of individuals over 500 per month. In addition, many community organizations have been brought into contact with the hospital and many gifts have resulted. The number of groups is too large to permit naming them all. They have been of various kinds: church, community service, and the American Red Cross. They have been most generous, and the hospital is deeply appreciative of what they have done.

OCCUPATIONAL THERAPY BRANCH

To this Branch, too, the services of volunteers have been invaluable, particularly in connection with the educational activities in the rehabilitation program. No less than 243 patients have benefited by the educational activities. During the year, six affiliate students were trained in the Branch.

SOCIAL SERVICE BRANCH

This Branch has been most helpful in the rehabilitation of patients and their return to the community. Nine hundred and ninety-seven patients were served by the Branch during the year. Close relations have been maintained with the Veterans Administration, the Office of Vocational Rehabilitation, and the District of Columbia Village. It is of some interest to note that since 1952, 116 patients have been sent from the hospital to the District of Columbia Village, of whom only 17 have been returned to the hospital. Fifty-five patients were referred to public assistance. One of the great needs of the District of Columbia is a greater number of available boarding homes, particularly for the older patients. The Branch also has had general supervision of the school program under which two full-time instructors

from the Board of Education have been providing instruction for the teenage patients.

CHAPLAIN SERVICES BRANCH

This Branch under Catholic, Protestant, and Jewish chaplains carries out religious ministry to the patients, both in the chapel and on the wards. New patients are visited, and such other patients as request the services of the chaplains. Training is carried out both for Catholic and Protestant clergy and theological students. The various community organizations have been most helpful to the chaplains, as has the Volunteer Branch. Through a gift of Mrs. Howard Chandler Robbins, three fellowships in advanced clinical pastoral training for Protestant clergy were established. The director of Protestant chaplain activities served as the Chairman of the Mental Health Week Committee. During this week probably at least 8,000 persons visited the hospital, and much was done to promote community understanding of mental illness.

MEDICAL RECORDS BRANCH

This Branch is continuing its development, and steps are underway to reorganize the filing system for hospital records.

LIBRARY SERVICES

The Medical Library provides library service for the medical staff. A large part of the time is devoted to interlibrary loans, the checking of references, and the indexing of the 215 journals to which the hospital subscribes. The total number of books is 19,478, with the addition of 18,000 pamphlets. It is a matter of keen regret that most of the libraries with which the hospital deals, even though they too are public organizations, are curtailing their services, increasing the amount of "redtape" involved, and making it more difficult to use them for interlibrary loans. The Veterans Administration is a notable exception, and particular thanks are due to them for their very generous and helpful cooperation. The Medical Library is badly crowded, and it is the hope of the hospital that the proposed wings of the Administration Building which will add very considerable library space may be authorized in the near future. The Patients' Circulating Library now has over 61,000 volumes and circulated approximately 2,800 books to the various wards in addition to making books available to the many patients who visit the Circulating Library. Many classes, such as those in typewriting, stenography, and French, are carried on. During the year, through the helpful cooperation of the Department, a considerable modernization of the bookbinding activities was brought about.

LABORATORY BRANCH

This extremely active and efficient Branch has been increasing its activities substantially. Tests performed were up 13 percent over last year. The autopsy rate was 46 percent; that is, 218 autopsies were performed. Much new equipment, most of it surplus property, has been installed.

Division of Administration

As last year, space does not permit mention of the various activities of this Division, such as financial, personnel, construction, grounds, and laundry, which are carried on efficiently. Substantial progress is still being made in developing new methods of property control and of billing. The Division has been very active in securing surplus property, which has been greatly appreciated and which has promoted the efficiency of the Hospital. The grounds have been maintained in excellent condition and several contracts, such as that for the construction of the maximum security building, have been supervised.

A methods unit has been organized, and two management analysts have been employed.

Needs of the Hospital

The need of new buildings for replacement and also for reduction of the overcrowding continues to be pressing. Nor should it be overlooked that the administrative activities have multiplied greatly with the increase of Government "redtape" and that wings for the enlargement of the Administration Building are very seriously needed. Most pressing of all, in addition to more personnel, is the revision of the salary scale, particularly for professional people. The States have marched ahead of the Federal Government in this field for several years, with the result that the Federal Government is far behind the procession in a competitive way. This is especially true of psychiatrists and pathologists. Proposals are being made to the Civil Service Commission, and it is hoped that some remedy may be found for the very serious shortages which now exist.

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Table 1.—*Movement of patient population, fiscal year 1959*

	Total	Male			Female		
		White	Colored	Total	White	Colored	Total
Total number under care and treatment, fiscal year 1959	9,070	2,557	1,928	4,485	2,675	1,910	4,585
Remaining on rolls, June 30, 1958	7,463	2,128	1,549	3,677	2,185	1,601	3,786
Admitted during year	1,607	429	379	808	490	309	799
Total discharged or died	1,513	442	334	776	470	267	737
Discharged	1,034	298	251	549	293	192	485
Discharged as—							
Recovered	44	13	13	26	12	6	18
Social recovery	389	72	77	149	111	129	240
Improved	439	145	122	267	129	43	172
Unimproved	148	61	32	93	42	13	55
Worse	0	0	0	0	0	0	0
No mental disorder	14	7	7	14	0	0	0
Unknown	0	0	0	0	0	0	0
Died	479	144	83	227	177	75	252
Remaining on rolls, June 30, 1959	7,557	2,115	1,594	3,709	2,205	1,643	3,848
Change in color and sex	0	−1	+5	+4	0	−4	−4
On visit or elopement	577	91	85	176	198	203	401
In hospital, June 30, 1959	6,980	2,023	1,514	3,537	2,007	1,436	3,443

Table 2.—*Consolidated statement of movement of patients, by classification, fiscal year 1959*

	Total	Reimbursable patients							Nonreimbursable patients																	
		Subtotal	Bureau of Indian Affairs	D.C. residents	D.C. voluntary	U.S. Soldiers' Home	Veterans' Administration	Other	Subtotal	Army	Bureau of Employees' Compensation	Immigration and Naturalization Service	Bureau of National Homes	Canadian insane	Canal Zone	Coast Guard	D.C. nonresidents	Federal reservations	Foreign Service	Interned aliens	Marine Corps	Navy	D.C. prisoners	D.C. prisoners (Sex psychopath)	Military prisoners	U.S. prisoners	Public Health Service	Virgin Islands
On rolls, June 30, 1958	7,463	6,045	64	5,347	207	44	380	3	1,418	215	1	2	3	56	16	15	226	19	9	4	21	80	406	40	27	100	39	139
Admitted to June 30, 1959	1,607	1,364	0	1,144	189	24	4	3	243	0	1	0	0	1	0	0	3	43	8	0	0	0	154	12	0	11	2	8
Separated, fiscal year 1959	1,513	1,041	3	800	164	17	53	4	472	10	0	0	0	2	0	0	261	35	6	0	3	6	108	2	3	22	5	9
Deaths	479	429	3	394	9	8	15	0	50	10	0	0	0	1	0	0	8	3	0	0	3	4	9	0	3	5	2	2
Discharges	1,034	612	0	406	155	9	38	4	422	0	0	0	0	1	0	0	253	32	6	0	0	2	99	2	0	17	3	7
On rolls, June 30, 1959	7,557	6,368	61	5,691	232	51	331	2	1,189	205	2	2	3	55	16	15	−32	27	11	4	18	74	452	50	24	88	37	138
Changes in classification	0	−260	0	−321	−3	0	+64	0	+260	0	0	0	0	0	0	0	+273	−4	+1	0	0	0	−5	−1	0	−4	0	0
Adjusted on rolls, June 30, 1959	7,557	6,108	61	5,370	229	51	395	2	1,449	205	2	2	3	55	16	15	241	23	12	4	18	74	447	49	24	84	37	138
On visit or elopement, June 30, 1959	577	502	1	412	60	2	27	0	75	0	0	0	0	1	0	0	30	9	3	0	0	1	20	8	0	1	0	2

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 provision of special educational books and supplies for the blind schoolchildren throughout the country 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 for this purpose. Allocations of books and materials are made on a per capita basis. 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 degrees."

The Printing House maintains large catalogs of Braille books, Talking Books, recorded tapes, Braille music publications, large-type texts, and tangible apparatus. A rich collection of educational material is thereby provided for the kindergarten through the high school grades. A total of 6,656 blind pupils was enrolled in the residential schools for the blind and 6,835 in public schools—a total of 13,491 blind pupils being served by the Printing House—for the fiscal year ending June 30, 1959.

During the 1959 fiscal year, Braille books, educational periodicals, and music made up approximately 48 percent of the materials required by the schools; Braille slates, Braillewriters, maps, and other mechanical devices about 19 percent; Talking Books about 5 percent; recorded educational tapes about 1.5 percent; and large-type books about 24.5 percent. Approximately 2 percent was used for miscellaneous items.

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Gallaudet College

Gallaudet College is devoted to the education of deaf persons who because of their handicap would have difficulty in schools and colleges for hearing students. The college, located in Washington, D.C., is the world's only college for the deaf. It was accredited in May 1957 by the Middle States Association of Colleges and Secondary Schools. In addition to education, it conducts research into the educational problems of deafness. It consists of the Kendall School and the college proper.

KENDALL SCHOOL

Primary and secondary schooling is provided for deaf children in the Kendall School, which also serves as a laboratory school for teachers training in the college. The oral method of instruction is used for all pupils except those who make no progress under it. Enrollment last year was 77, of which 62 came from the District of Columbia. In the fall of 1959, a nursery school was established also and is under the direction of and a part of our Hearing and Speech Center.

GALLAUDET COLLEGE

The college, established in 1864 by act of Congress, offers the associate's degree after 2 years of study, and a bachelor's degree in the liberal arts and sciences. The Preparatory Department provides the senior year of high school for students who are unable to obtain it in the State schools for the deaf. The Graduate Department of Education offers a master's degree and a professional diploma in the education of the deaf to students with normal hearing, and offers a 4-week training course to vocational counselors who wish to acquire a deeper understanding of deaf persons. Total enrollment in the college last year was 358, with students from 45 States and 6 foreign countries. In addition, there were in attendance throughout a part of the school year 66 students enrolled in (a) summer school graduate courses, (b) courses in "orientation to the deaf" for vocational rehabilitation counselors, welfare workers, etc., and (c) extension classes.

Howard University

HOWARD UNIVERSITY, located in the District of Columbia, was chartered by act of Congress on March 2, 1867. The university offers programs of higher education on the undergraduate, graduate, and professional levels. Undergraduate students are registered in the college of liberal arts; graduate students seeking the master's and doctor of philosophy degrees are registered in the graduate school; professional students are registered in the colleges of medicine, dentistry, pharmacy, and the schools of engineering and architecture, music, social work, law, and religion. (The school of religion receives no support from Federal funds.)

The educational program of Howard University is conducted in keeping with the democratic purposes of the land-grant colleges and State universities with the low tuition fees and living costs which characterize these State institutions and with an educational program resting upon and permeated by the content and spirit of a general or liberal education. The university admits students of both sexes, from every race, creed, and national origin, but it accepts and undertakes to discharge a special responsibility for the admission and training of Negro students.

ENROLLMENT OF STUDENTS

During the school year 1958–59, the university served a total of 6,661 students as follows: 5,130 during the regular academic year and 1,531 in the summer session of 1958. The net total enrollment, excluding all duplicates, was 5,959, distributed in the 10 schools and colleges as follows: liberal arts, 2,861; graduate school, 585; engineering and architecture, 862; music, 292; social work, 123; dentistry, 587; medicine, 336; pharmacy, 147; law, 104; and religion, 62. This enrollment included a larger body of Negro professional students than in all universities of public support in all the Southern States combined.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Of a total of 5,501 students seeking degrees, 4,778, or 87 percent, came from 43 States and the District of Columbia, while 723 students, or 13 percent, came from outside the continental United States including 2 possessions of the United States, 50 foreign countries, and 15 island possessions of the British, French, and Dutch West Indies.

The 4,778 students from the United States were distributed as follows: New England States, 83; Middle Atlantic States, 753; East North Central States, 237; West North Central States, 85; South Atlantic States, 2,967; East South Central States, 343; West South Central States, 268; Mountain States, 10; and Pacific States, 32.

The 723 students from outside the continental United States came from 50 foreign countries, including Canada, 2 countries in the West Indies, 4 countries in Central America, 5 countries in South America, 11 countries in Europe, 11 countries in Africa, 15 countries in Asia, and 15 island possessions of the British, French, and Dutch West Indies.

VETERANS

There were 783 veterans enrolled at Howard University during the school year 1958–59. They were distributed among the 10 schools and colleges as follows: 347 in liberal arts, 47 in the graduate school, 6 in music, 173 in engineering and architecture, 25 in pharmacy, 66 in medicine, 72 in dentistry, 9 in social work, 32 in law, and 6 in religion.

ARMY AND AIR FORCE ROTC

Army ROTC.—Four hundred and eleven students were enrolled in Army ROTC during the school year 1958–59. Of this number, 185 were in the first-year course, 134 were in the second year, 39 were in the third year, and 53 were in the fourth year. During the year, 44 students were commissioned as reserve officers in the Army.

Air Force ROTC.—There were 331 students enrolled in Air Force ROTC. Of this number, 186 were in the first-year course, 113 were in the second-year course, 21 were in the third, and 11 were in the fourth year. Five students received commissions as reserve officers in the Air Force.

THE FACULTY

During the year 1958–59, a total of 593 teachers served the university. Of this number, there were 349 full-time teachers and 244 part-time teachers. The full-time equivalent of the teaching staff was 403.36. Of this number, 375.54 were teaching in the rank of instructor and above.

From the beginning of the university's work in 1867, the founders invited to the faculty of the university learned and able men and women on the basis of their ability and character as individuals and without discrimination as to sex, race, creed, color, or national origin. It was a major purpose of the founders to employ Negro teachers,

among others, on every faculty. Today the Negro members of the professional faculties of Howard University constitute together a group of 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 outstanding Negroes in the public life of America. From them came the founder and operator of the first blood plasma bank in the world, the first Negro Governor of an American possession, the first Negro in the Secretariat of the United Nations (Nobel Prize winner), the first Negro member of the bench of the U.S. Court of Appeals, and the first Negro cultural attaché in the diplomatic service of the United States to a major European nation.

THE BUILDING PROGRAM

In September 1958, a new men's dormitory, accommodating 304 students, was put into operation. Construction was continued on the new auditorium-fine arts building, scheduled to be put into operation in September 1960. This structure is designed to provide an auditorium for 1,500 persons, a laboratory little theater, with a capacity of 320 persons, and complete classrooms and other facilities for the entire school of music and for the departments of fine arts and the drama.

Plans were in the process of preparation for the construction of a home economics building and a building to house the program of physical education for men, looking toward the erection of these two buildings in 1961.

GRADUATES

During the school year 1958–59, there were 636 graduates from the 10 schools and colleges. These graduates came from 30 States, the District of Columbia, the Virgin Islands, Puerto Rico, and the following foreign countries: Ethiopia, Liberia, Nigeria, Iran, Barbados, Bermuda, Grenada, Jamaica, Trinidad, and British Guiana.

These 636 graduates were distributed among the 10 schools and colleges as follows: liberal arts, 251; engineering and architecture, 77; music, 23; the graduate school, 66; social work, 41; medicine, 75; dentistry, 42; dental hygiene, 8; pharmacy, 10; law, 28; and religion, 15. Three of these graduates were persons receiving the degree of doctor of philosophy in chemistry. Four honorary degrees were also conferred.

Since its establishment in 1867, Howard University has graduated 21,090 persons. By far the large majority of these graduates have been Negroes. Among their number is a larger body of graduates in medicine, dentistry, pharmacy, engineering, music, law, and social

work than the entire output of Negro professional graduates in all universities and colleges of public support in the entire group of Southern States. These graduates are at work in 44 States and 27 foreign countries. In every population center in the United States, they constitute the largest and most diversified group of trained Negro public servants related to any single institution in the world.

The largest number of graduates have entered the field of teaching, primarily in the Southern States. Three thousand and fifteen have entered the practice of medicine; 2,470 have entered the practice of dentistry and dental hygiene; 2,383 have entered the field of law; 792 have entered the ministry; 858 have entered the field of pharmacy; 723 have gone into engineering and architecture; and 431 have entered the field of social work.

SERVICE IN FOREIGN COUNTRIES

In recent years teachers and students from Howard University have served in Burma, Brazil, Ceylon, Egypt, Ethiopia, Germany, India, Israel, Iraq, Italy, Kenya, Liberia, British Guiana, the Sudan, Japan, and Vietnam. Fulbright scholars from the university have worked in Egypt, Ghana, Iraq, Japan, Norway, Sweden, Denmark, Italy, France, Greece, England, and India.

The responsible leaders in Government and the friends of America again and again have acknowledged their services as being of the greatest value to their country and to the cause of democracy in the world.

Among recent testimony from the Government is a letter from the Chief, Education and Training Branch, Division of International Health of the Department of Health, Education, and Welfare regarding a consultant tour made at the request of the U.S. Mission, by the dean of the College of Medicine: ". . . I am pleased to tell you that the United States and Vietnamese officials found Dr. Jason the thoughtful, scholarly educator that both you and I know him to be and that he did a wonderful job in our common interest. We appreciate very much your willingness to permit him to be absent from his desk for such a long time and wish only that there were more Americans who could represent us so well abroad."

The Director of the International Exchange Service writes as follows, regarding the service of a member of the faculty as a visiting professor of dentistry at the University of Ceylon: "Wherever he went, Dr. Griffiths was an excellent interpreter of American life to his audiences and was admired for his personal attributes as well as his professional competence. The Department of State deeply appreciates the cooperation of Howard University in making it possible for Dr. Griffiths thus to serve under its International Educational Exchange Program."

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